

HOMELoan FINENCE DATA ANALYSIS

RISHABH MEHROTRA

INTRODUCTION

This dataset comprises information about home loan customers, loan applications, sanction and disbursal details, recovery records, and metadata on branches, channels, and products. The objective is to analyze trends in loan amounts, sanctioning, disbursals, and recovery performance, and to derive insights **into customer and operational patterns.**

STATISTICAL ANALYSIS

1. Customer Loan Applications

- **Total records:** 25,234
- **Applied Loan Amount (in Lacs):**
- Mean: ₹9.72 L
- Median (50th percentile): ₹8.00 L
- Minimum: ₹1.00 L
- Maximum: ₹24.00 L
- Std Dev: ₹6.38 L

Observation: The majority of applicants request loans between ₹4–14 Lacs, with a few outliers applying for the maximum.

SANCTION AND DISBURSAL DATA

- **Total records:** 25,236
- **Sanctioned Amount:**
 - Mean: ₹8.43 L
 - Median: ₹7.20 L
 - Range: ₹0.80 L to ₹22.80 L
- **Disbursed Amount:**
 - Mean: ₹7.76 L
 - Median: ₹6.62 L
 - Range: ₹0.74 L to ₹20.98 L

Observation: On average, ~86% of the applied loan amount is sanctioned and ~92% of the sanctioned amount is disbursed. This indicates a moderately conservative sanctioning policy.



RECOVERY DATA

Total records: 16,767

Recovery Amount:

- Mean: ₹6.21 L
- Median: ₹5.30 L
- Range: ₹0.59 L to ₹16.78 L
- Std Dev: ₹4.33 L

Delinquency Buckets (not yet quantified, but include: 30 Days, 60 Days, 90 Days, 12 Months)

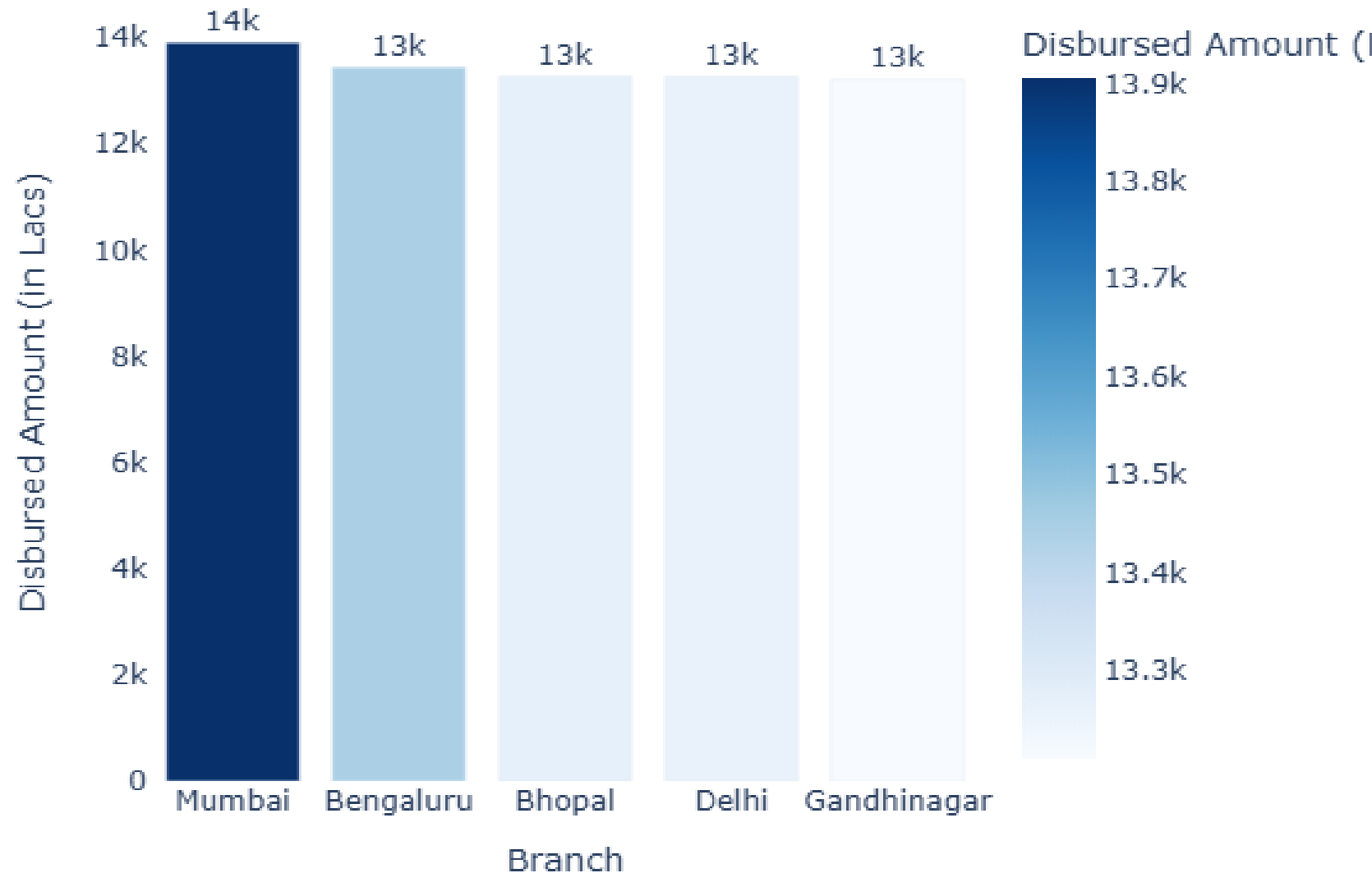
Observation: Recovery amounts show a wide distribution. Some accounts have significant outstanding amounts, especially in long-delinquency cases.

COMPARATIVE INSIGHTS

- The **gap** between applied and sanctioned amounts suggests a vetting process that adjusts loans to eligibility or risk profile.
- The **disbursal rate** (close to sanctioned value) reflects strong operational efficiency.
- **Recovery effectiveness** is fairly high with a median close to 85% of typical sanctioned values, though tail risks (very high delinquencies) are visible.

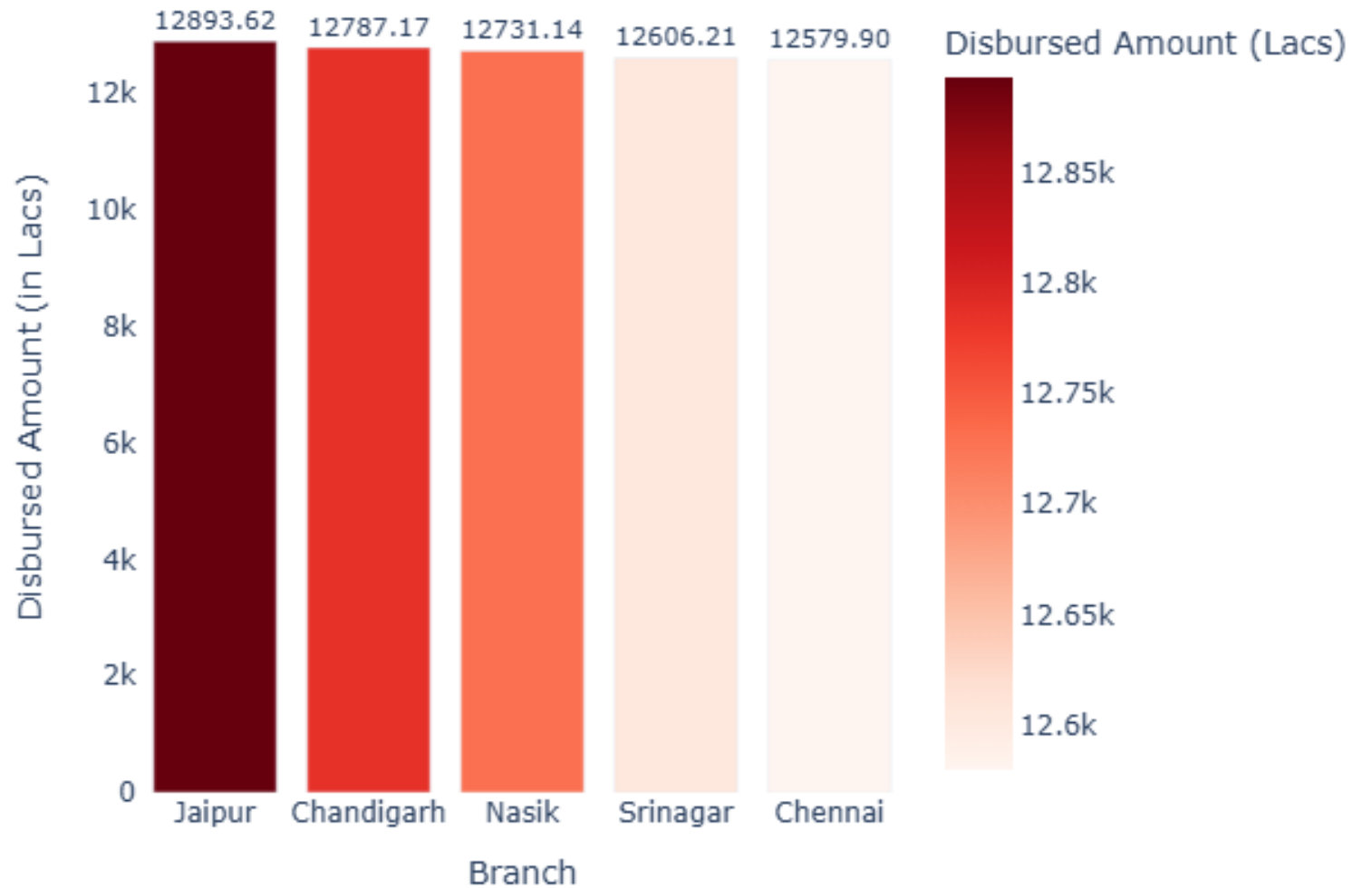
TOP 5 BRANCHES BY DISBURSED AMOUNT

Top 5 Branches by Disbursed Amount



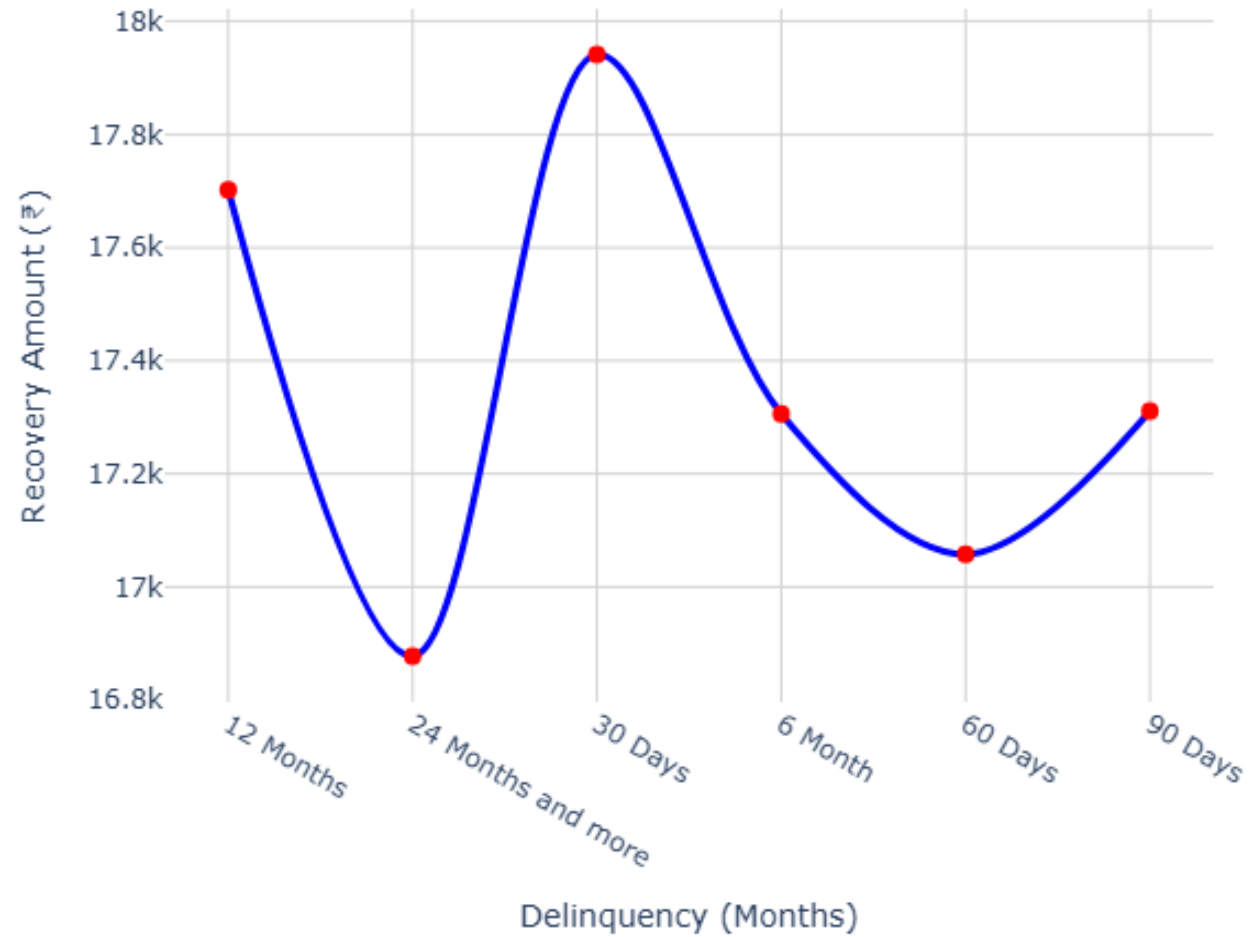
BOTTOM 5 BRANCHES BY DISBURSED AMOUNT

Bottom 5 Branches by Disbursed Amount



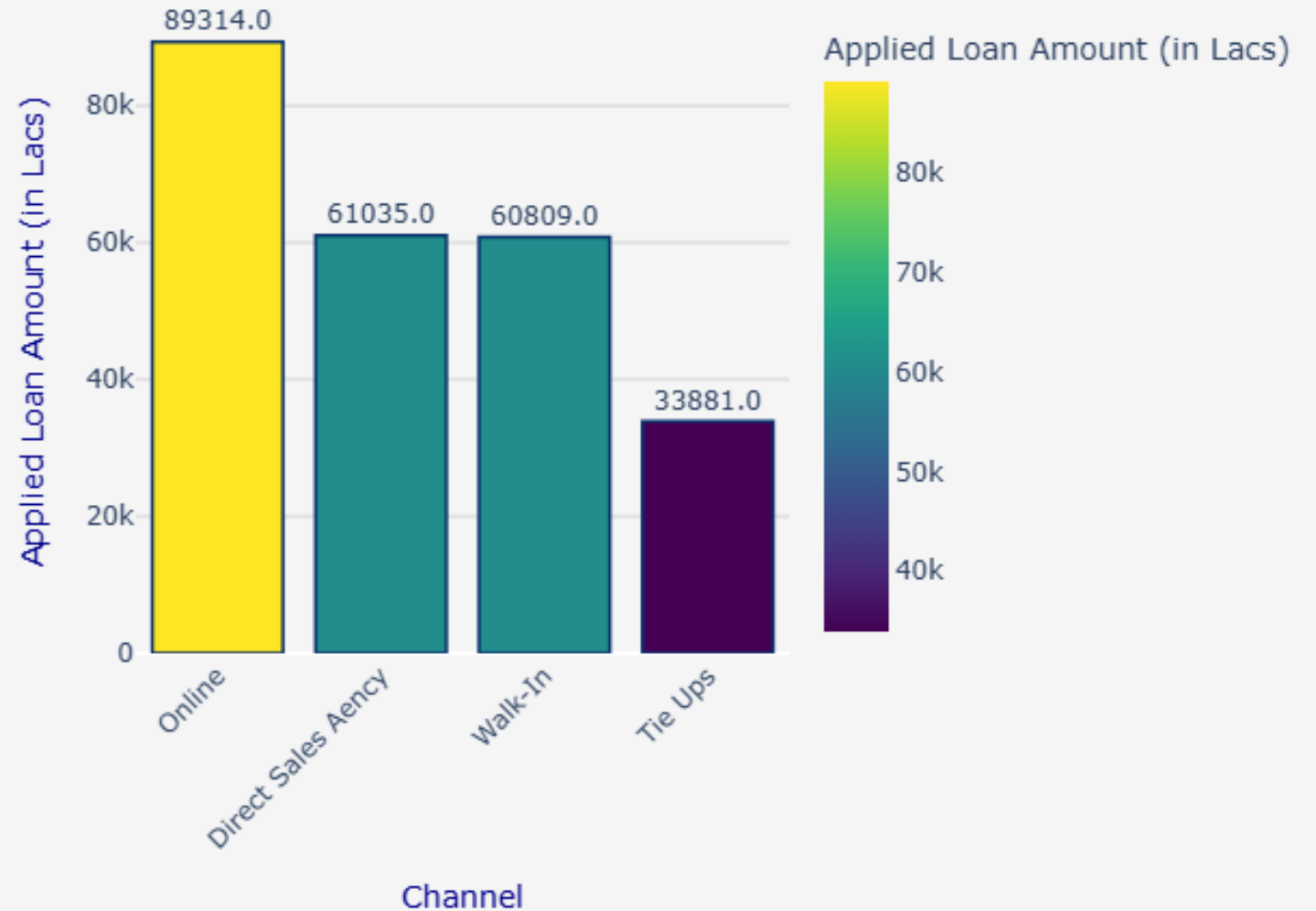
RECOVERY AMOUNT OVER DELINQUENCY MONTHS

Recovery Amount Over Delinquency Months

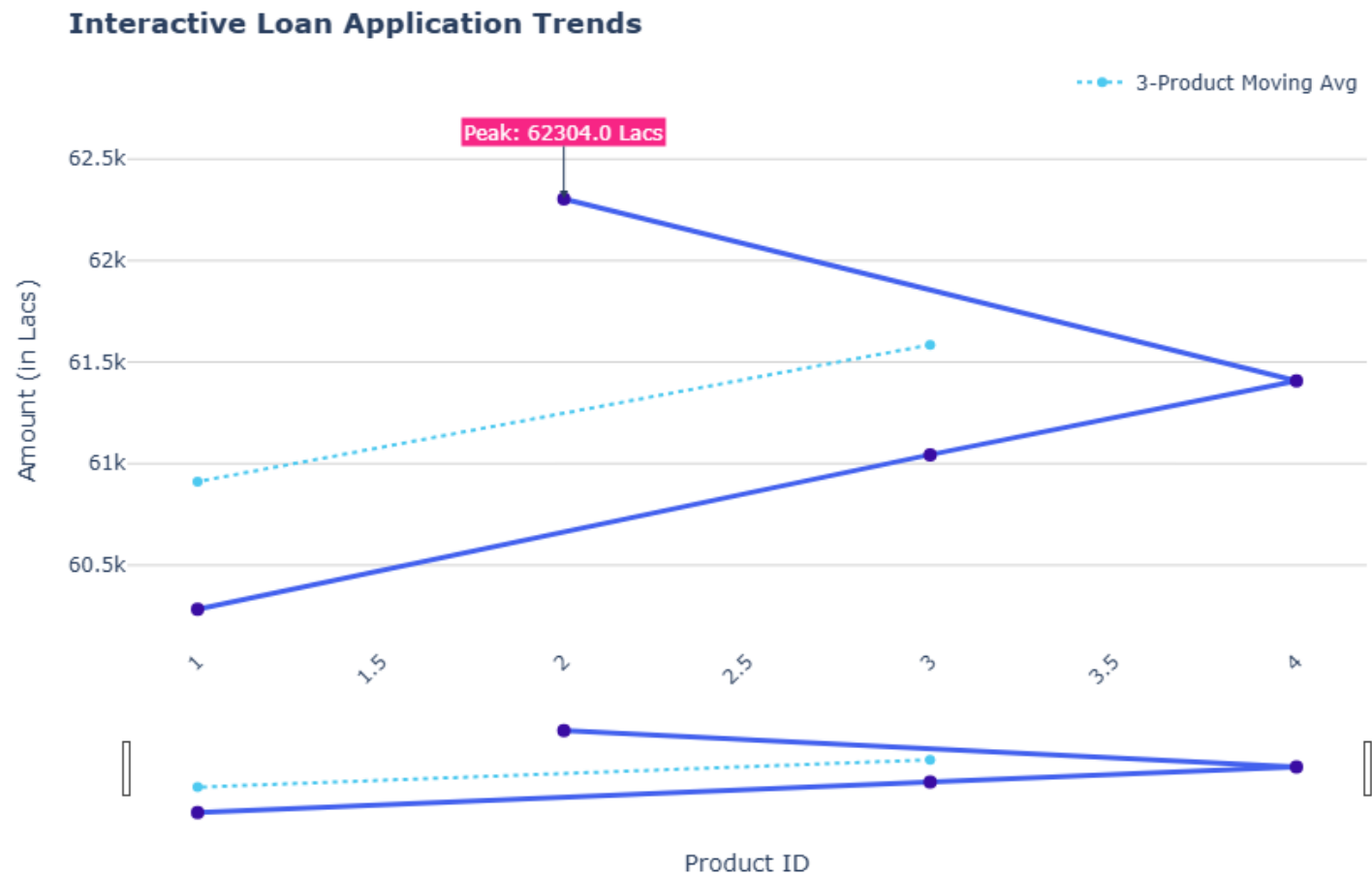


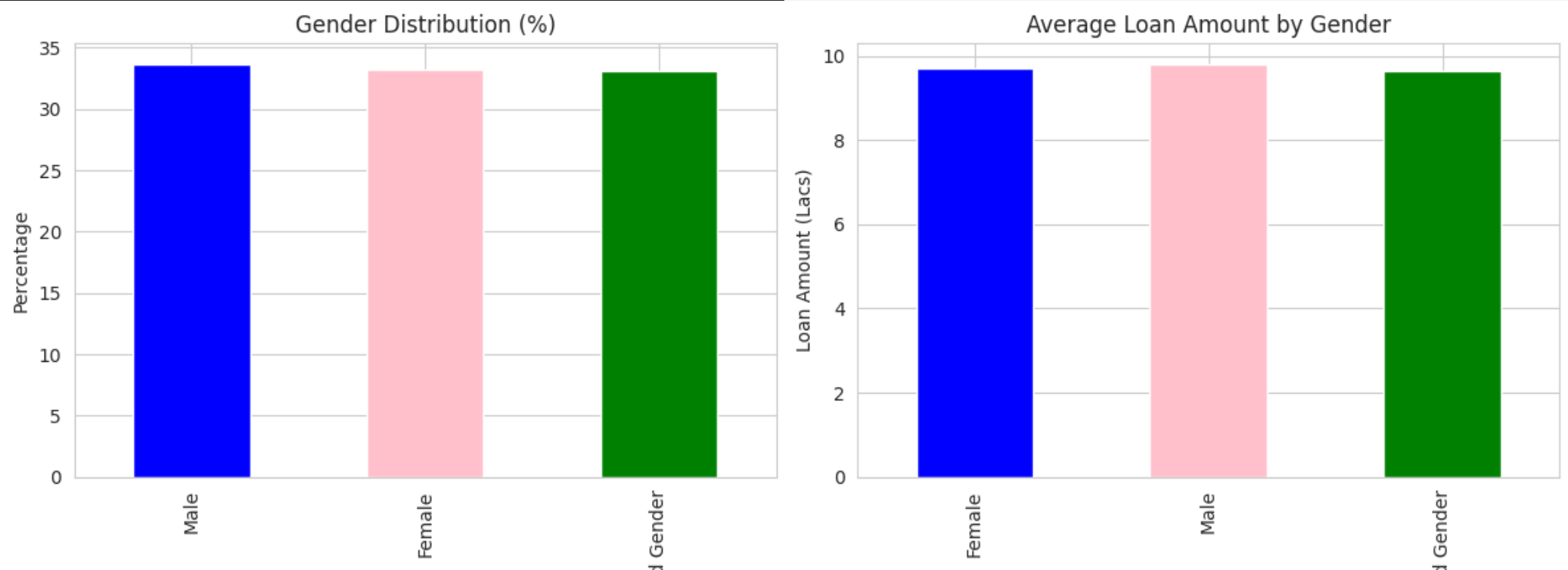
PERFORMANCE OF DIFFERENT CHANNELS

Performance of Different Channels



LOAN APPLICATION TREND

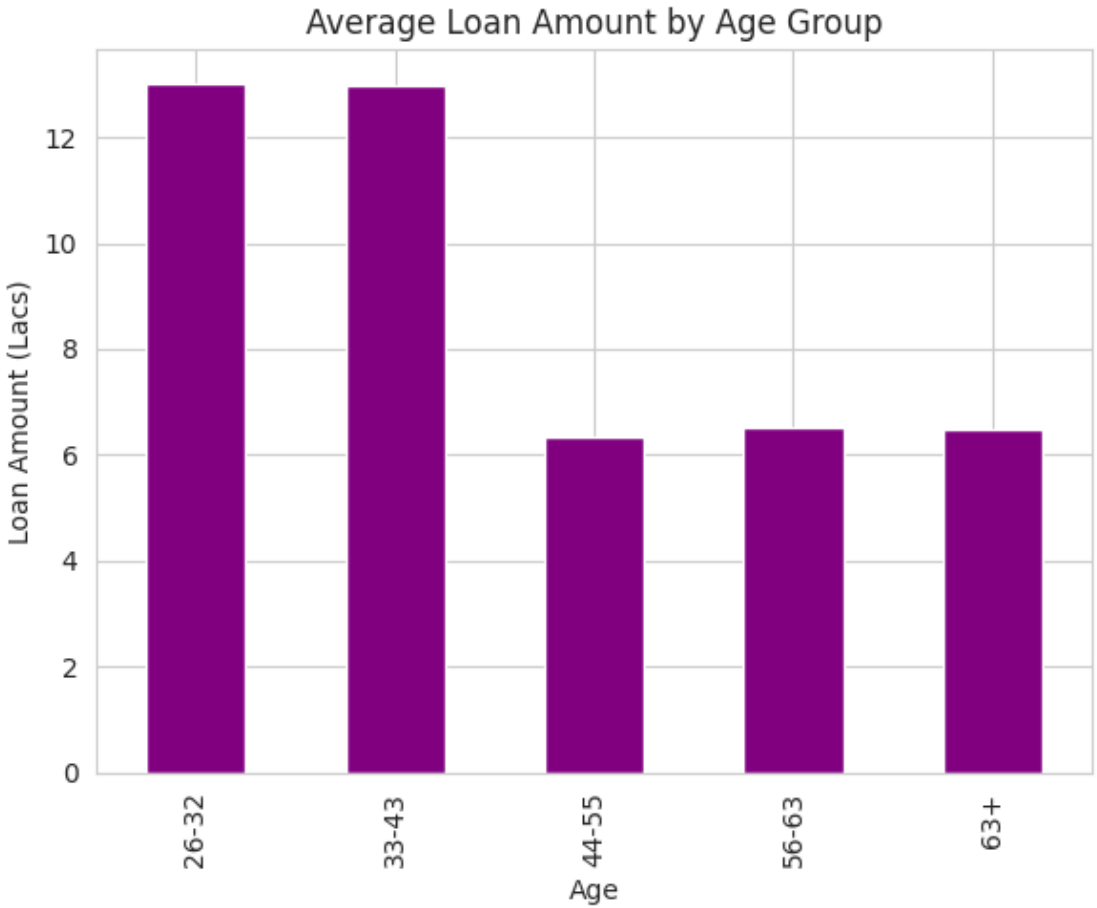
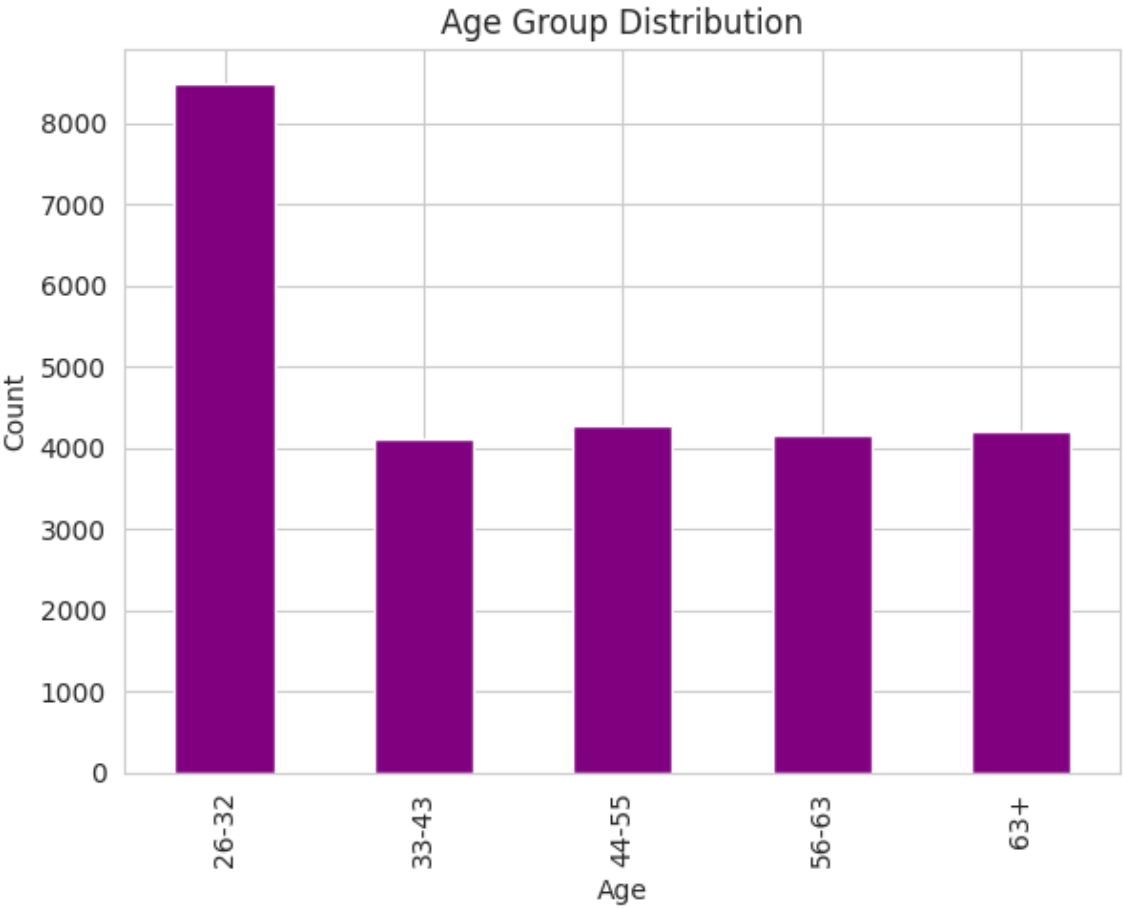




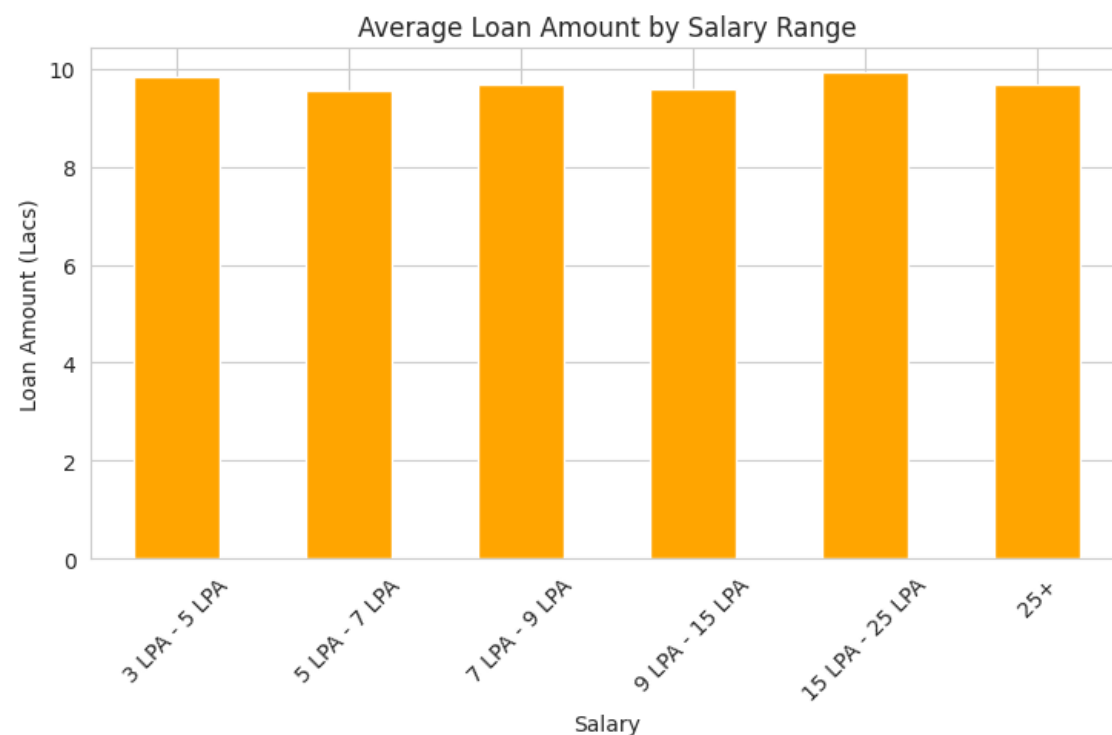
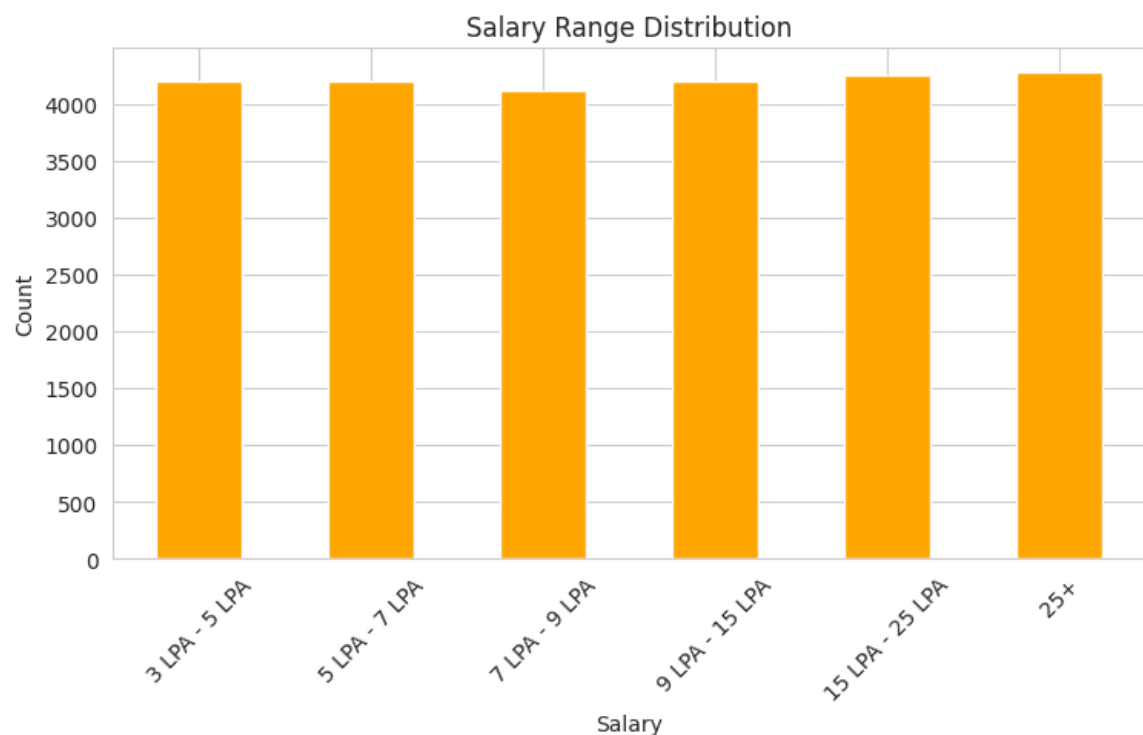
AVERAGE LOAN AMOUNT BY GENDER

—

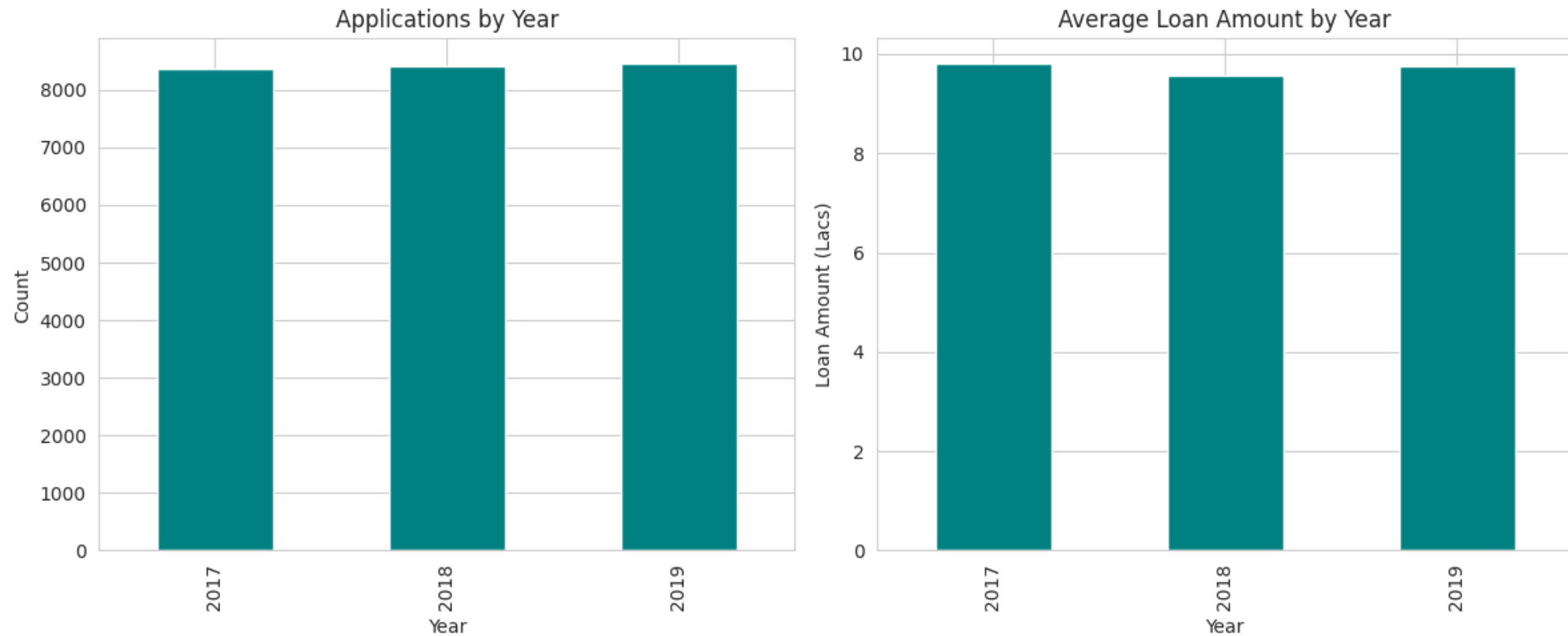
AVERAGE LOAN AMOUNT BY AGE GROUP



AVERAGE LOAN AMOUNT BY SALARY RANGE



AVERAGE LOAN AMOUNT BY YEAR



ANALYSIS RESULT

Salary Groups:

- The lowest recovery rates are typically seen in the **<5 LPA** salary group.
- Recovery rates generally increase with higher salary brackets.
- The highest recovery rates are in the **15-25 LPA** and **25+ LPA** groups.

Age Groups:

- The **26-32** age group shows the lowest recovery rates.
- Middle-aged groups (33-43, 44-55) have moderate recovery rates.
- The highest recovery rates are seen in the **56-63** and **63+** age groups.

KEY FINDINGS:

1.Monthly Trends:

- 1.Typically see dips in loan amounts during **February and November**
- 2.Peak periods tend to be **mid-year (May-July)** and **year-end (December)**
- 3.The lowest month varies by year but often falls in Q1 (Jan-Mar)

2.Yearly Trends:

- 1.Clear growth trajectory from 2017 to 2019
- 2.2018 shows the highest total loan amounts
- 3.2017 had the lowest volumes (expected as it's the earliest year in dataset)

3.Seasonal Patterns:

- 1.Consistent dip at start of calendar year (Jan-Feb)
- 2.Summer months (May-Jul) show strong performance
- 3.Year-end (Dec) often sees a spike in activity

RECOMMENDATIONS:

Product Strategy:

- Consider expanding group-insured products if they show better performance
- Analyze risk-adjusted returns to confirm better recovery

Risk Management:

- Investigate why group-insured products perform differently
- Examine default rates in addition to loan amounts

Marketing Focus:

- Allocate more resources to better-performing product types
- Consider incentives to shift portfolio mix toward better-performing products

CONCLUSION

The home loan portfolio appears well-managed in terms of application processing and disbursal. However, delinquency and recovery patterns point to areas where tighter credit checks or better recovery mechanisms might help reduce long-term risks. The data supports a mostly salaried demographic, suggesting predictable income streams—a good base for financial products.