



Data Glacier

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Exploratory Data Analysis

Go-to-Market Insight for Cab Investment Firm

Vin Brun | November 11, 2024

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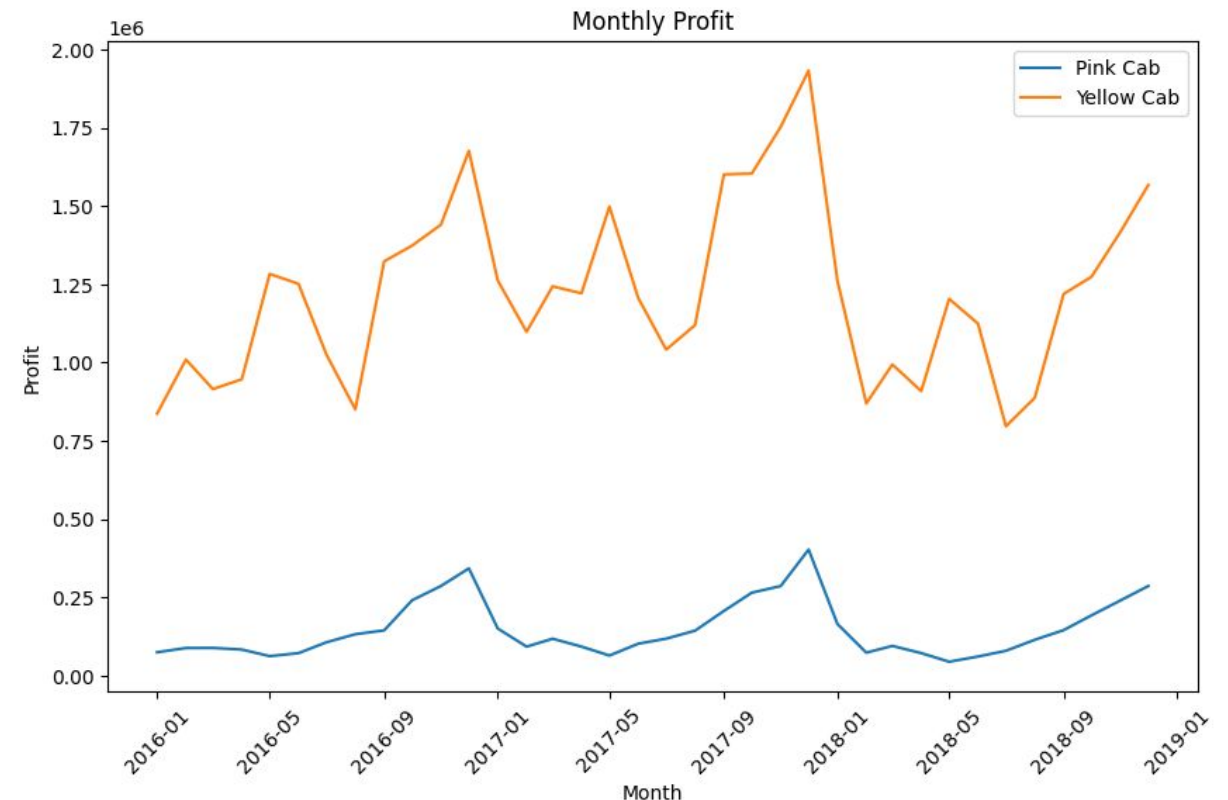
Executive Summary

Objective: Identify the best cab company for investment.

Key Findings:

- Yellow Cab outperforms Pink Cab in all key metrics: rides, revenue, profit, and customer retention.
- Seasonal trends show higher demand from October to December for both companies.
- Despite a slight decline in profit margins, Yellow Cab remains the more lucrative investment opportunity.

Recommendation: XYZ should invest in Yellow Cab.



Problem Statement

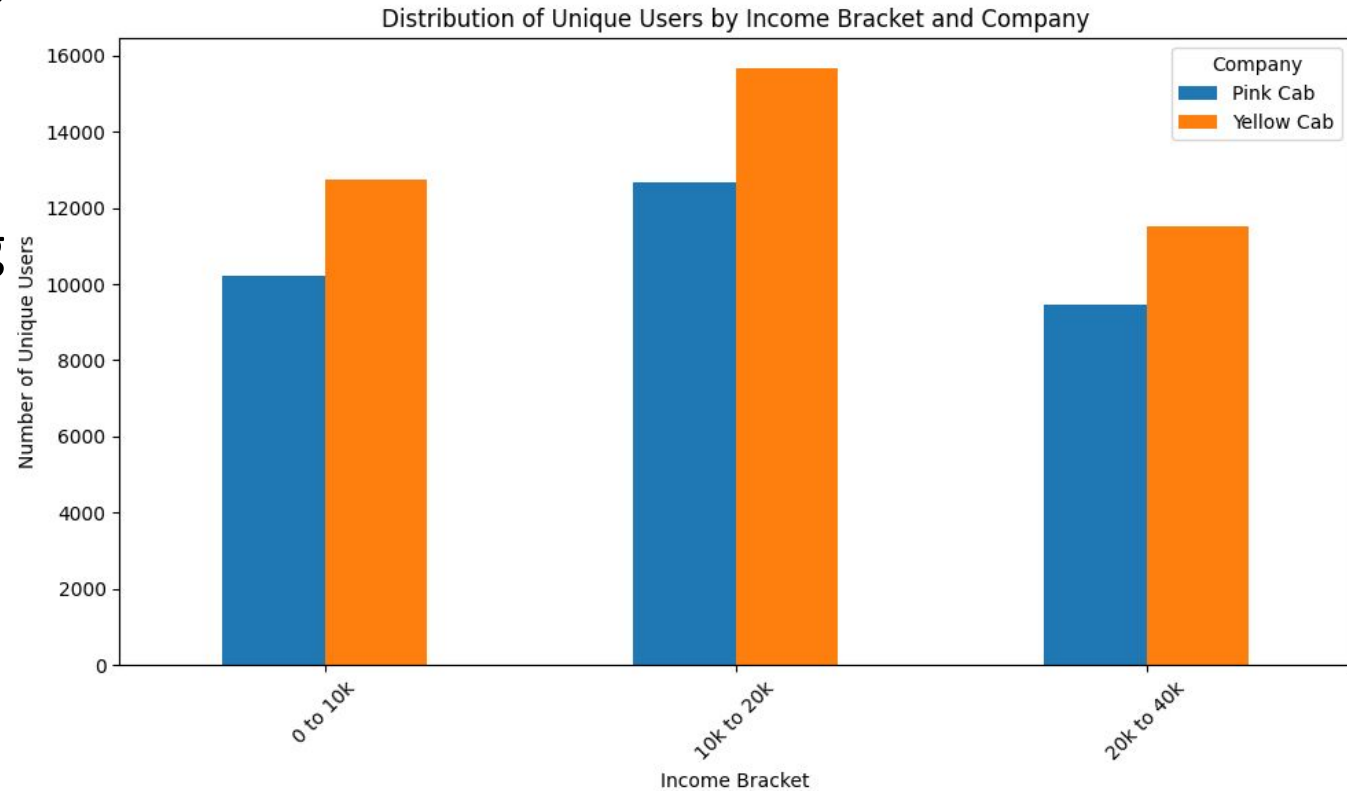
Problem: Determine whether Pink Cab or Yellow Cab is the better investment for XYZ.

- The cab industry has shown resilience against the rise of ride-hailing apps.
- Analyzing customer demographics, financial performance, and market share is crucial for informed decision-making.

Approach: Data Preparation

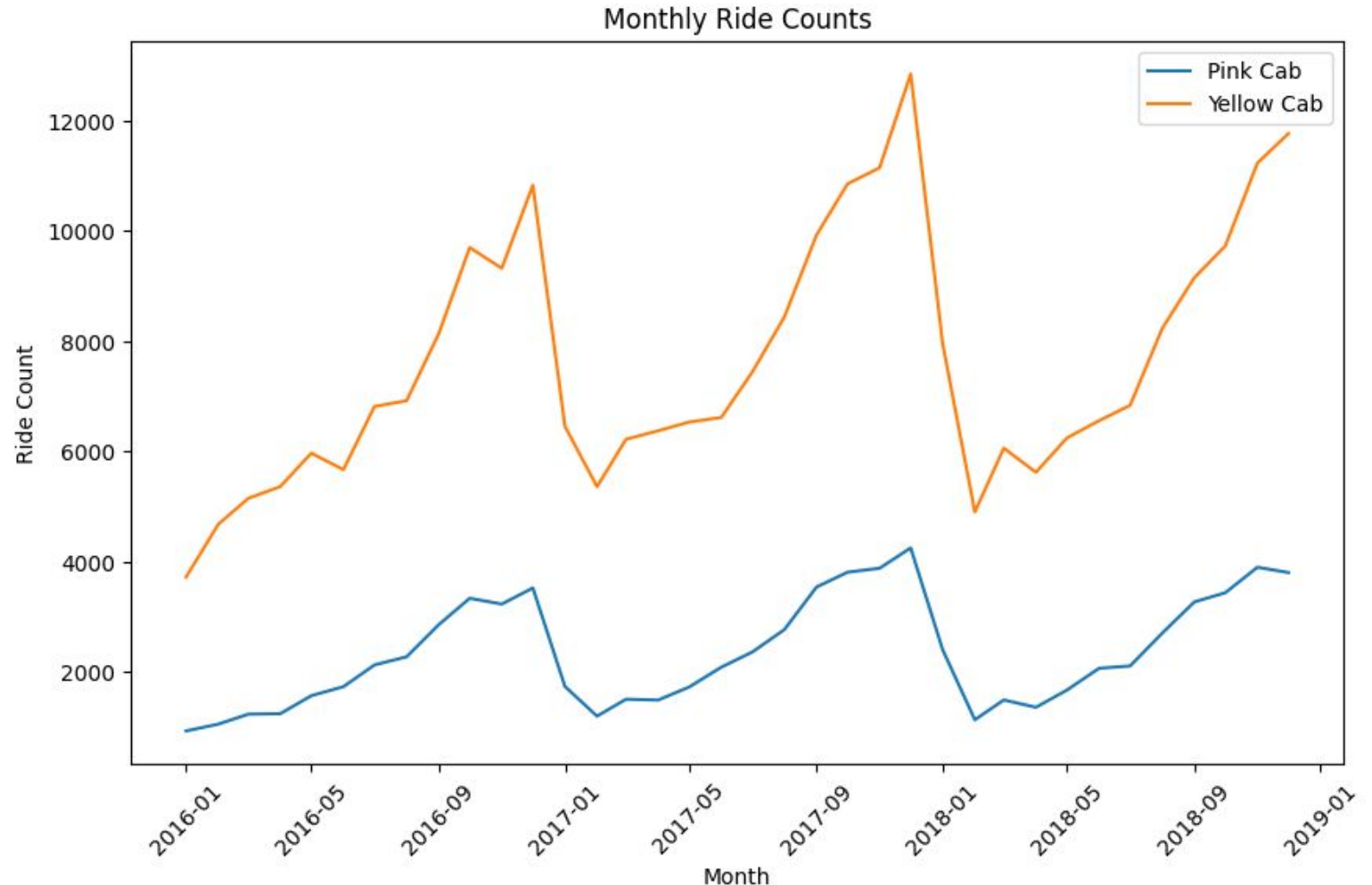
Merged datasets: Cab_Data, Customer_ID Transaction_ID, and City.

- Duplicates were removed, and missing values were handled.
- Key metrics, such as the Profit Margin Ratio and customer retention rates, were calculated.



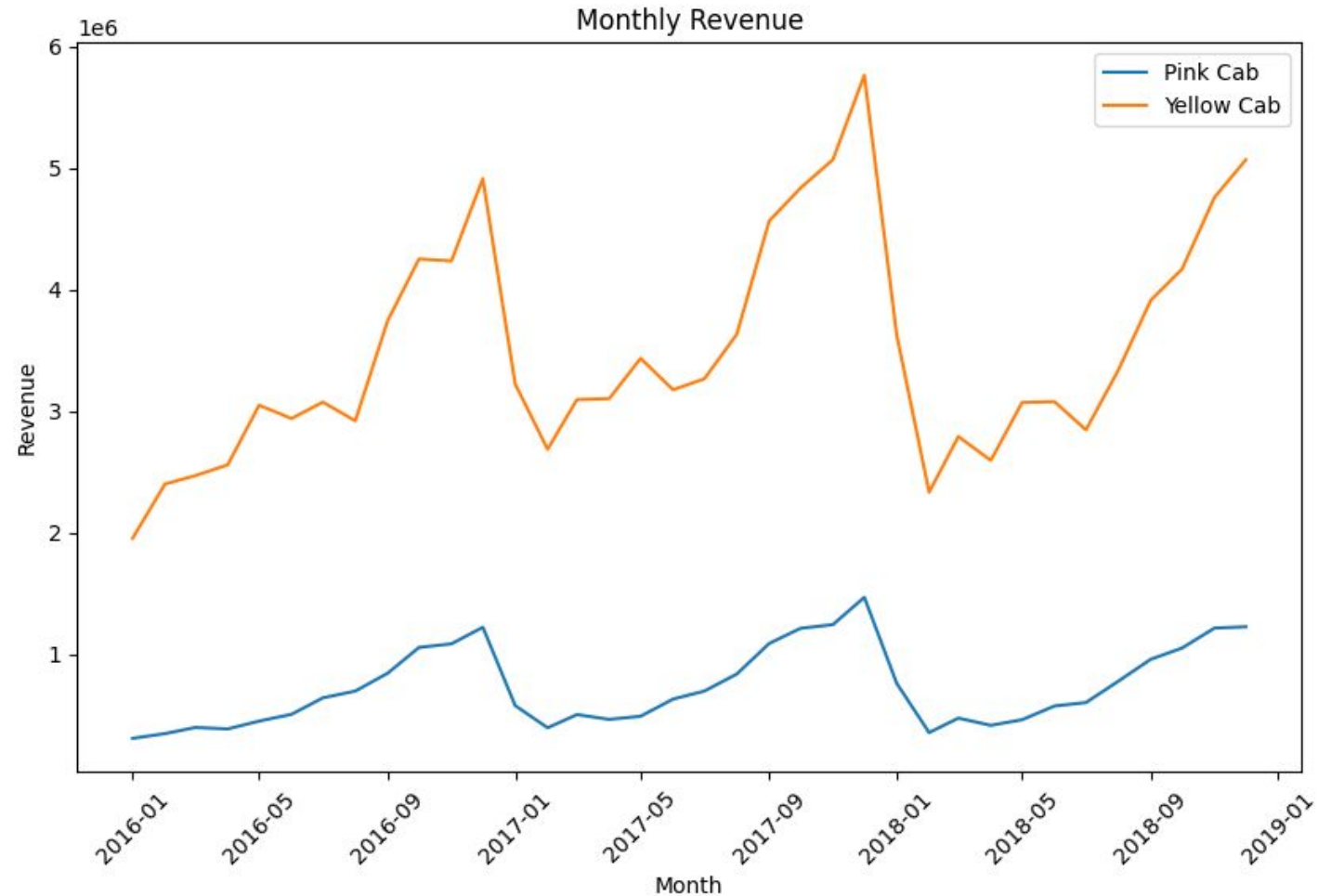
Approach: Analytical Techniques

- **Ratio Analysis:** Profit Margin Ratio.
- **Market Trends:** Analyzed seasonal patterns and geographic performance.
- **Customer Insights:** Retention and income segmentation.



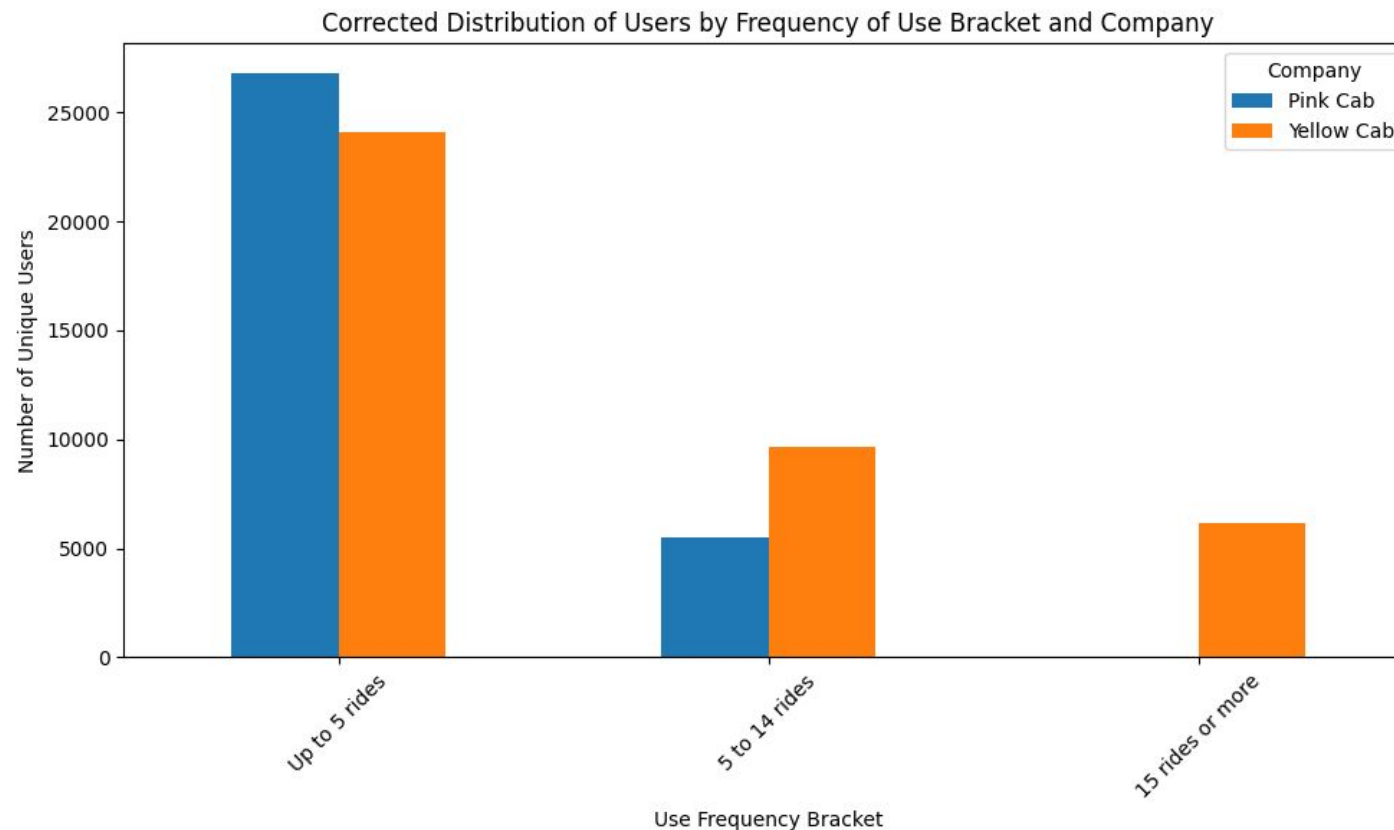
EDA: Key Metrics Overview

- **Yellow Cab** has higher revenue and profit across all months.
- **Pink Cab** consistently underperforms compared to Yellow Cab.



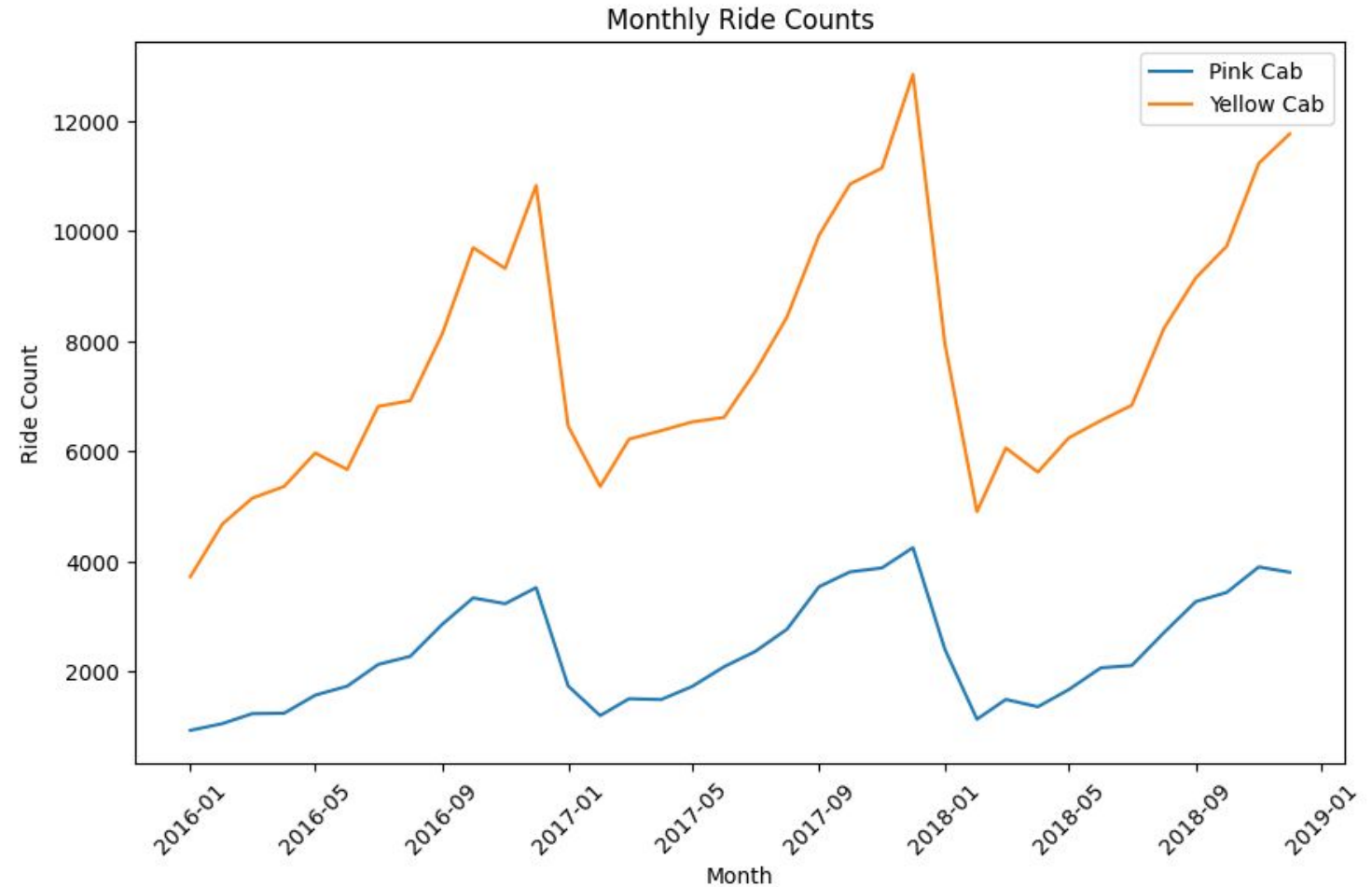
EDA: Customer Retention

- **Yellow Cab** retains 186% more customers with five or more rides compared to Pink Cab.



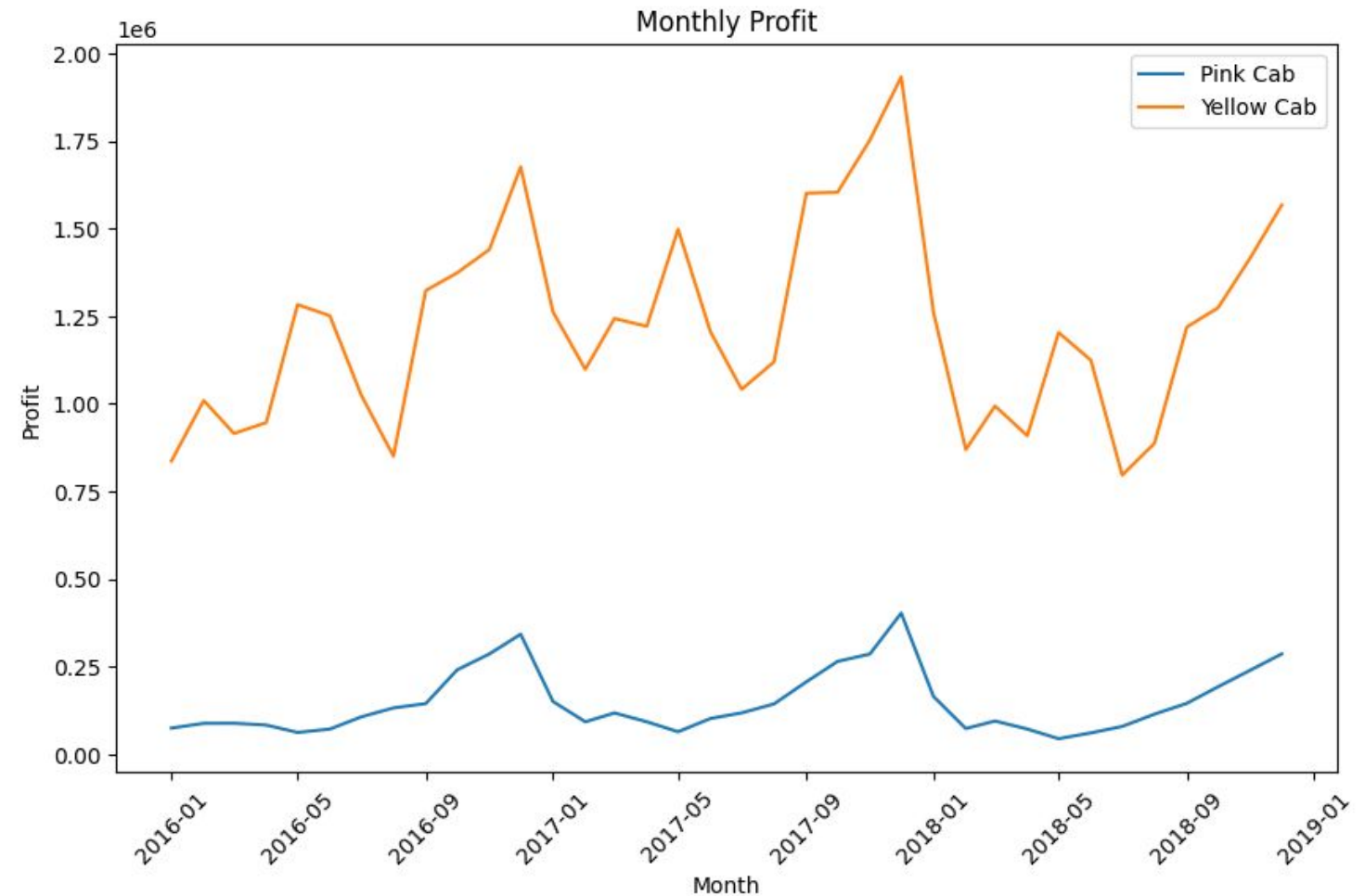
EDA: Market Trends

- **Seasonal peaks** are observed from October to December.
- **Both companies** exhibit similar seasonal trends.



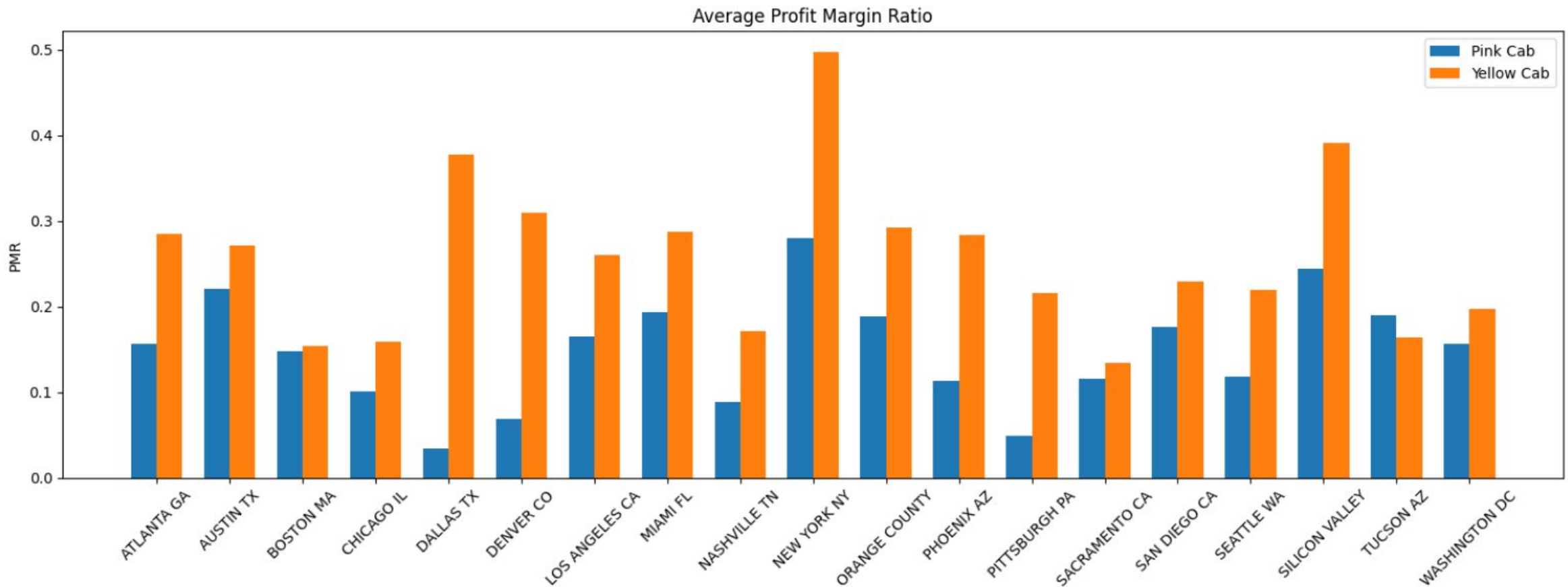
EDA: Profitability Insights

- **Although declining, Yellow Cab's profit margin ratio remains higher than Pink Cab's.**



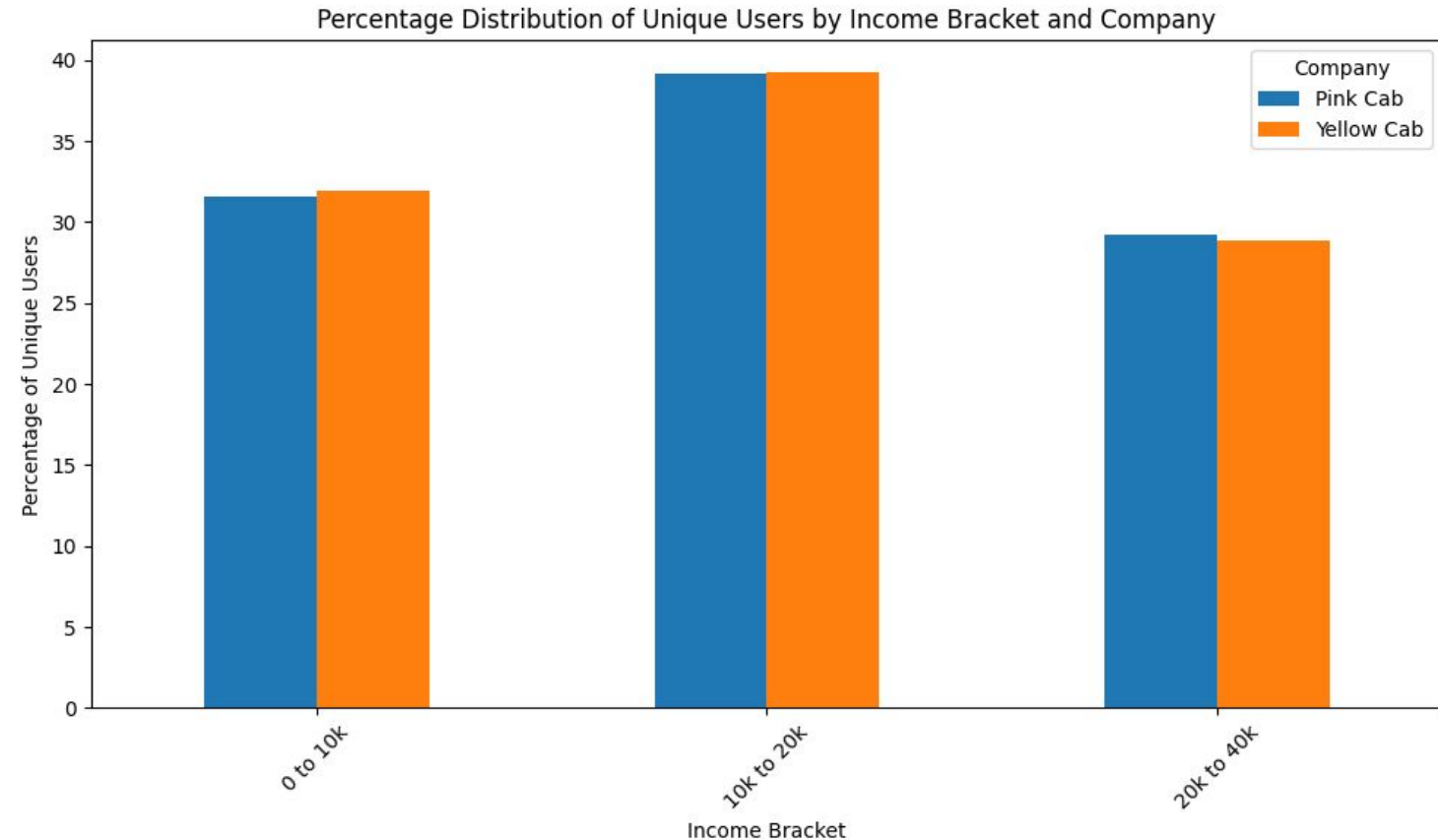
EDA: Geographic Performance

- **Yellow Cab** holds a dominant position in most major cities.



EDA: Income Segmentation

- **Similar income distribution** between companies suggests equivalent customer appeal.



EDA Summary

- **Yellow Cab** consistently outperforms Pink Cab in:
 - Ride counts, revenue, and profit.
 - Customer retention (especially recurring customers).
 - Geographic dominance in major cities.
- **Seasonal trends** show increased demand from October to December for both companies.
- **Profit margin ratios** indicate that Yellow Cab's profitability is higher, despite experiencing a slight decline over time.
- **Income distribution** is nearly **identical** for both companies, suggesting similar customer demographics.

Recommendations

Investment Recommendation:

- **Invest in Yellow Cab:** Higher revenue, profit, and customer retention rates.
- **Monitor** trends in profit margins and operational costs to ensure sustained profitability.
- **Capitalize** on seasonal peaks with targeted marketing and promotional activities.

Thank You