Retail Customer Retention Analytics – IKEA

Power BI Project Report

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Course: Data Science Nov 1st

Video Explanation Link

Introduction

IKEA is a globally recognized furniture retailer known for its affordable and stylish home products. With increasing competition from new online and local brands, retaining customers has become essential for long-term success. Although IKEA collects large volumes of customer data, existing reports mainly show past sales and lack insight into customer loyalty and churn.

This project focuses on analyzing customer retention patterns using transaction history, loyalty program data, and store performance records. The goal is to build an interactive Power BI dashboard that highlights key metrics such as churn rate, repeat purchases, and customer lifetime value (CLV), helping IKEA make data-driven decisions to strengthen customer loyalty.

Dataset Overview

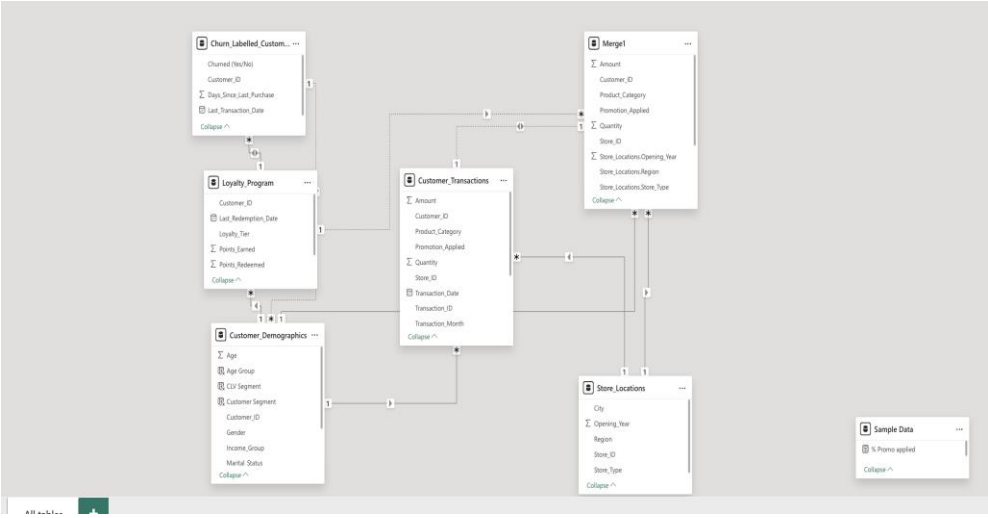
Five datasets were used:

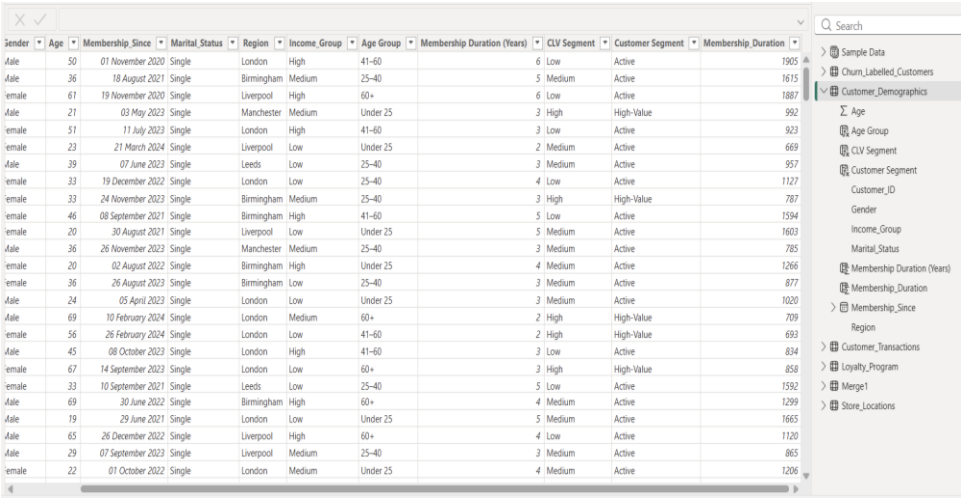
- **Customer Demographics** – Customer age, gender, region, income, and membership details.
- **Customer Transactions** – Purchase records including dates, spending, product categories, and store IDs.
- **Store Locations** – Store region, type, and opening year.
- **Loyalty Program** – Loyalty tiers, points earned and redeemed.
- **Churn Labelled Customers** – Identifies active and churned customers.

Task 1: Data Modeling and Cleaning

All datasets were loaded into Power BI. Duplicate records were removed, data types were corrected, missing values were handled, and new date-based columns were created for time analysis. Proper relationships were built between tables, ensuring smooth filtering and accurate reporting.

Screenshot Placeholder:





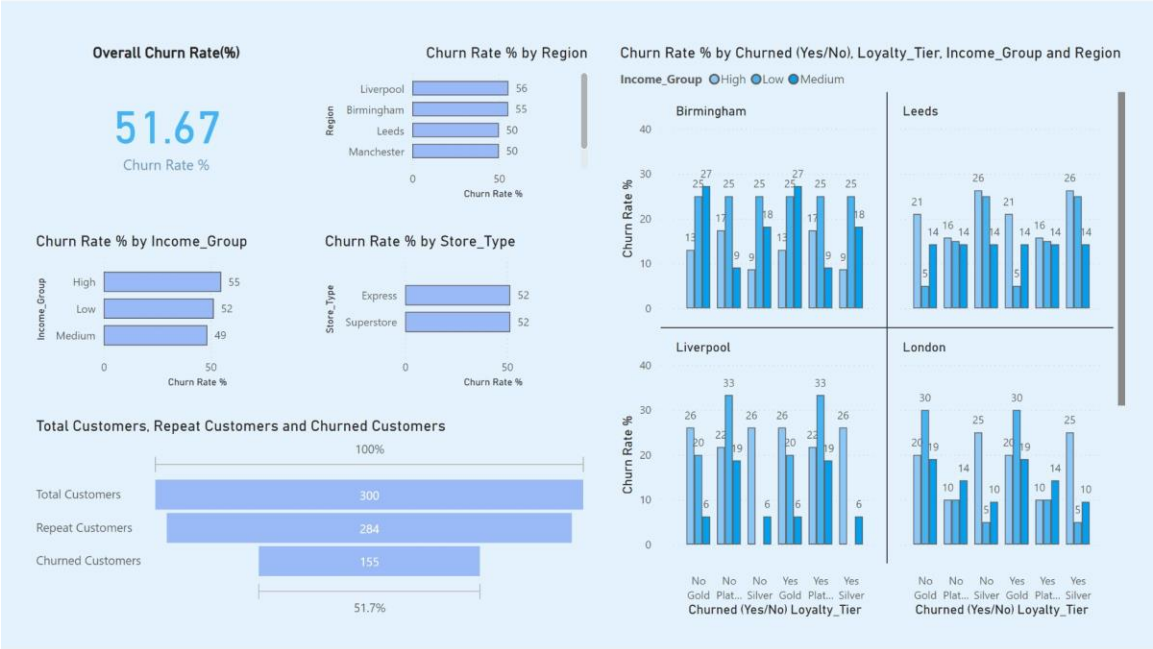
Insights / Observations:

After cleaning and modeling, the data became consistent and ready for analysis. Removing duplicates and correcting data types for improved report accuracy. Creating proper relationships between tables ensures smooth filtering across visuals.

Task 2: Churn and Retention Metrics

Churn rate measures and KPIs were created to track overall retention of health. Visuals showed churn trends by region, income group, and store type. A funnel chart illustrates customer movement from total customers to repeat buyers and churned users.

Screenshot:



Insights / Observations:

The churn rate KPI provides a quick view of overall customer retention health. Visualizing churn by region and income group helps identify specific customer segments with higher churn risk. The funnel chart clearly shows the drop from total customers to repeat and churned customers, highlighting where IKEA should focus on retention efforts. These insights support targeted marketing and loyalty strategies.

Task 3: Repeat Purchase Analysis

Customers were grouped into Low, Mid, and High-tier loyalty segments based on purchase frequency. Charts compared loyalty behavior across age groups and regions, and highlighted product categories preferred by loyal customers.

Screenshot:

Insights / Observations:

The repeat purchase analysis clearly highlights customer loyalty patterns. High-tier customers contribute frequent purchases and represent IKEA's most valuable segment. Comparing purchase frequency across regions and age groups helps identify markets with stronger loyalty behavior. Understanding product categories preferred by loyal customers provides useful insights for targeted promotions and personalized marketing strategies.

Task 4: Promotion & Loyalty Impact

Analysis compared spending with and without promotions and evaluated churn across loyalty tiers. Points earned versus redeemed were visualized to measure engagement.

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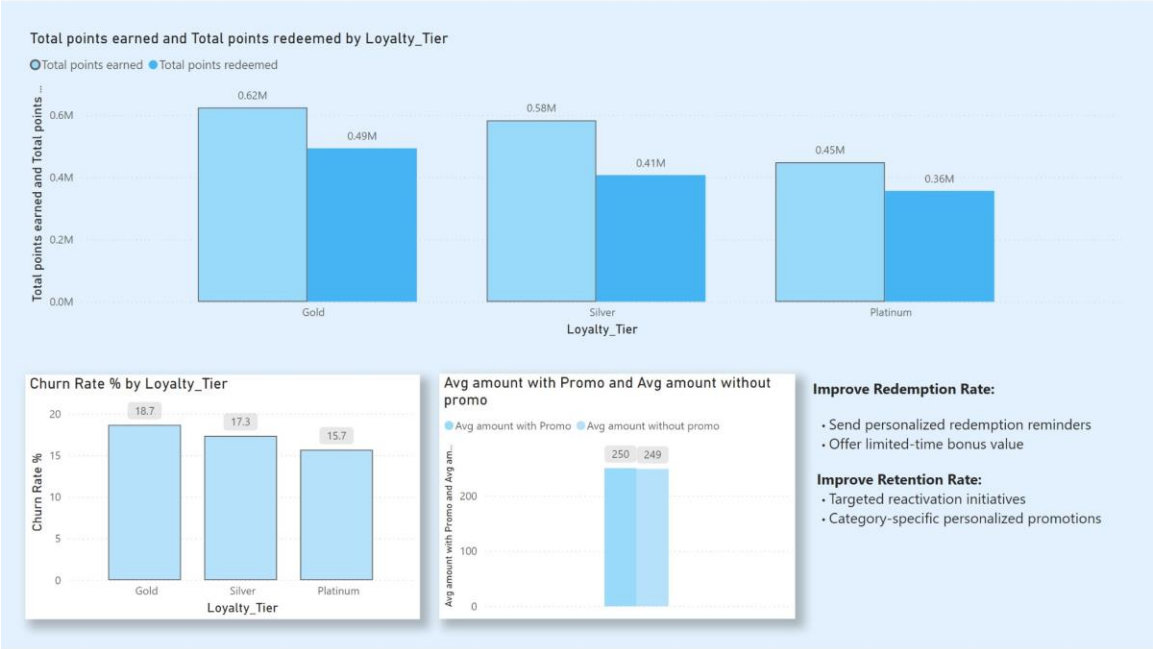


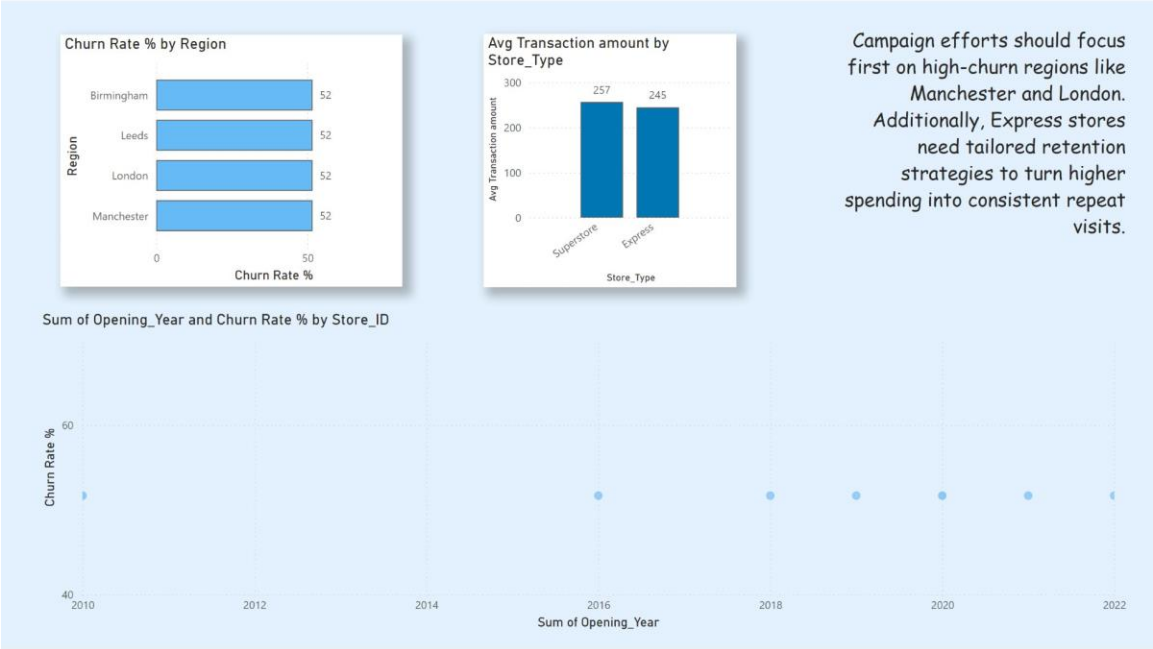
Insights / Observations:

The promotion analysis shows how frequently customers use promotional offers and whether promotions increase spending. Comparing churn rate across loyalty tiers helps identify which tier customers are more likely to stay loyal. The points earned versus redeemed chart highlights customer engagement with the loyalty program. These insights indicate opportunities to improve reward redemption and design better promotional campaigns to strengthen retention.

Task 5: Store Performance vs Retention

Store type, region, and opening year were analyzed against transaction value and churn rate.

Screenshot:



Insights / Observations:

The store-wise analysis highlights differences in customer retention across regions and store formats. Stores with higher average transaction values generally show better retention, indicating stronger customer engagement. The churn rate by region visual helps identify underperforming store areas where targeted marketing and localized loyalty campaigns can improve retention. The correlation between store opening year and retention provides insight into how newer and older stores perform in keeping customers engaged.

Task 6: Customer Value (CLV) Analysis

CLV was calculated based on total spending and membership duration. Customers were segmented into low, medium, and high-value groups.

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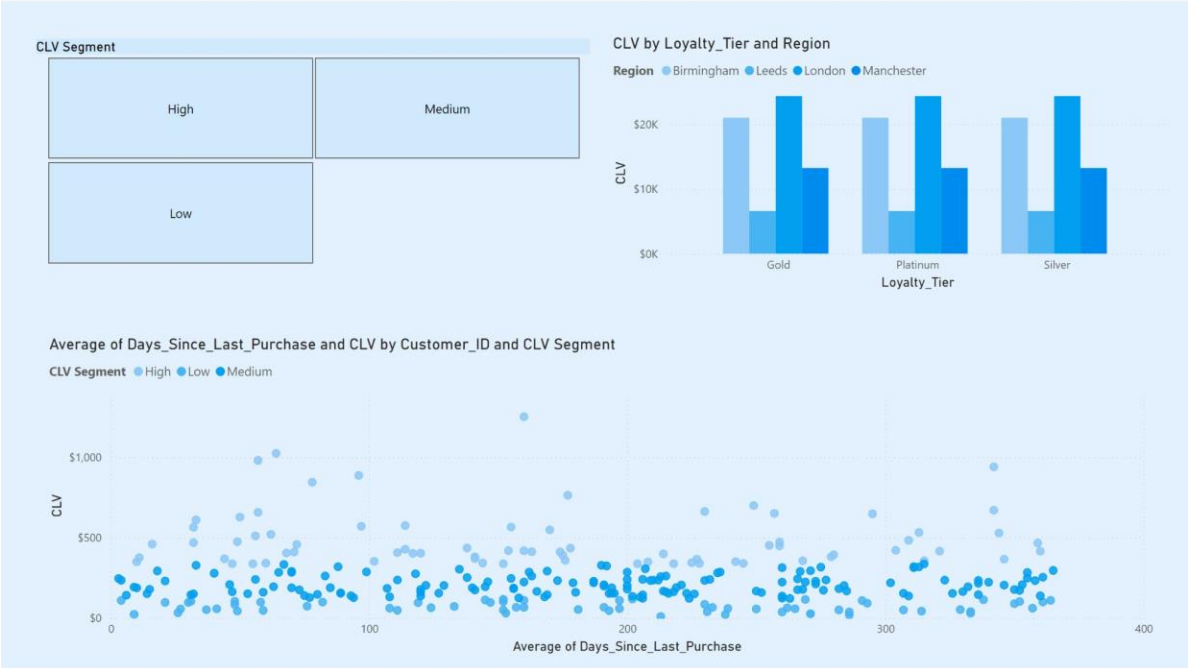


Insights / Observations:

The CLV analysis helps identify IKEA's most valuable customers. High CLV customers contribute significantly to revenue and show strong loyalty. Comparing CLV with days since last purchase helps detect high-value customers who are becoming inactive and may need re-engagement campaigns. CLV analysis by region and loyalty tier supports better targeting retention strategies and personalized offers.

Task 7: Final Dashboard and Executive Summary

The objective of this task is to design a complete multi-page Power BI dashboard that presents key customer retention insights in a clear and interactive way for business decision-makers.

A multi-page Power BI dashboard was designed:

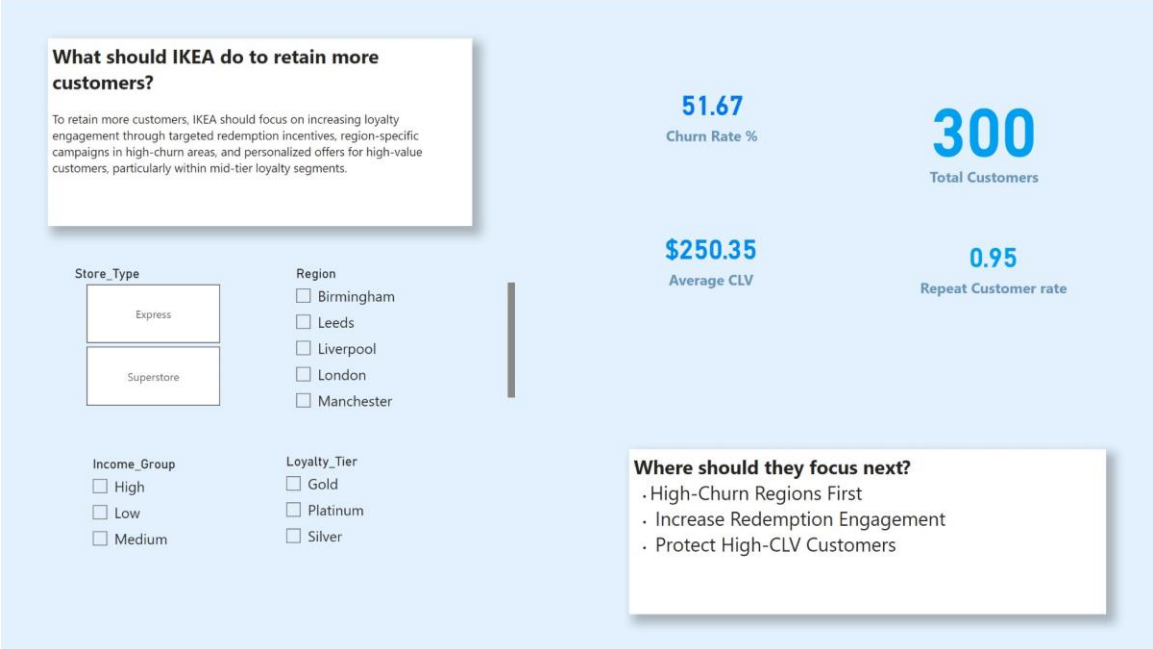
- **Overview KPIs:** Churn Rate, CLV, Repeat Purchase Rate
- **Loyalty & Promotions:** Loyalty tier performance and promotion impact
- **Store & Region Insights:** Store-wise retention trends

- **Customer Segmentation:** Churned, repeat, and high-value customers

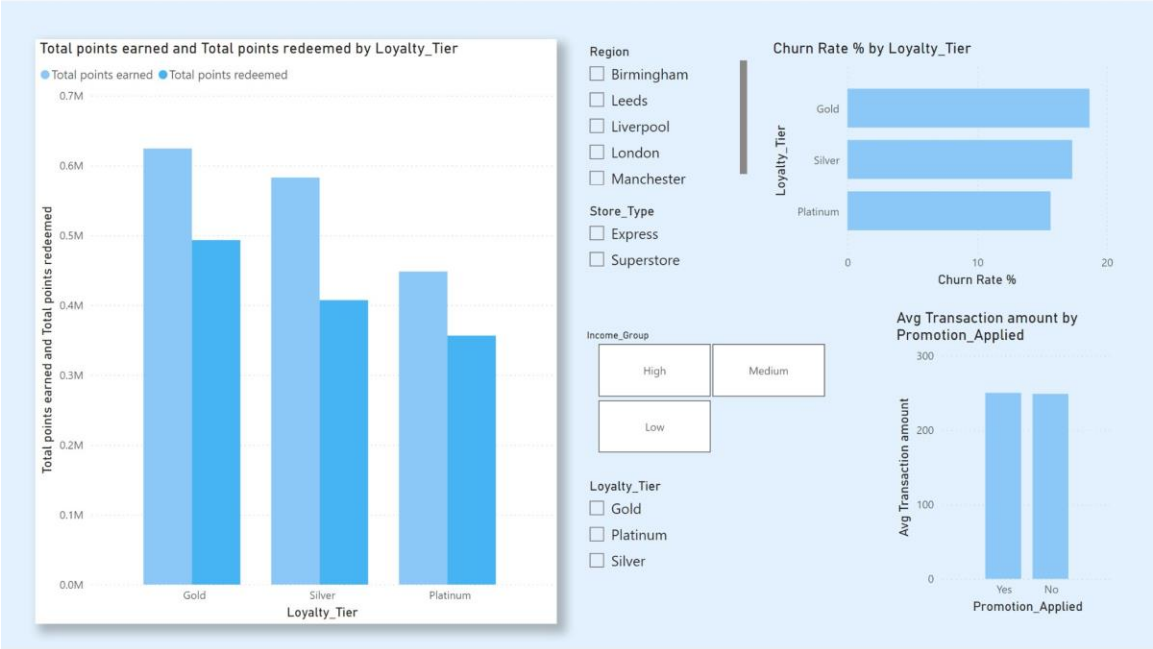
Interactive slicers allow dynamic exploration of all insights.

Screenshot:

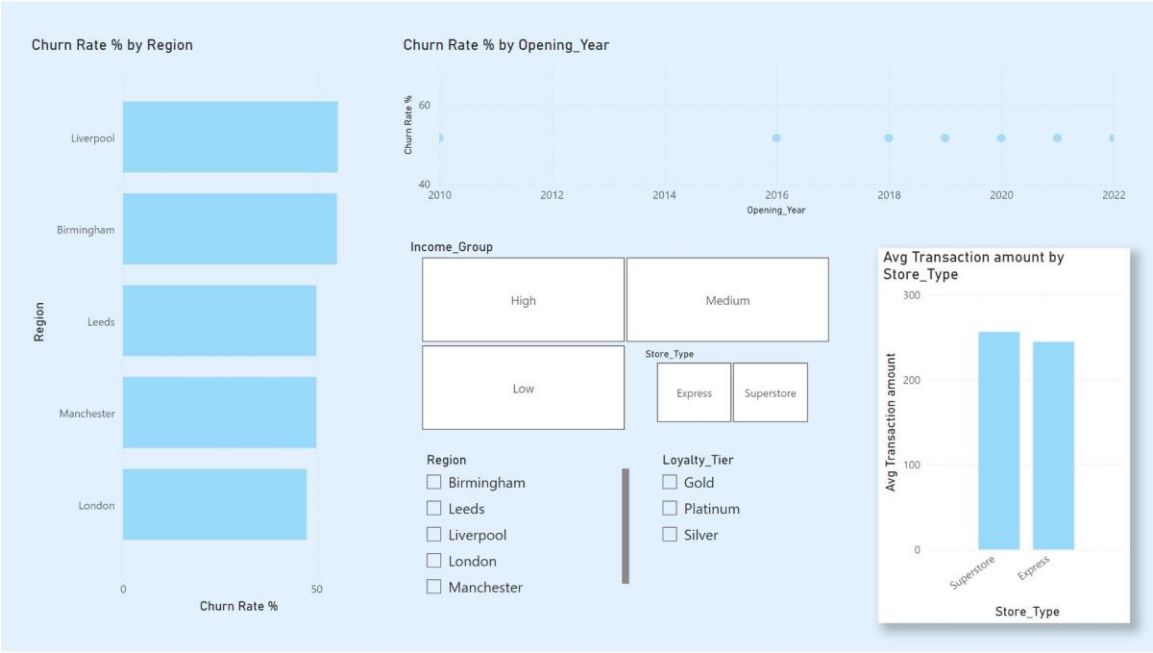
Overview KPIs



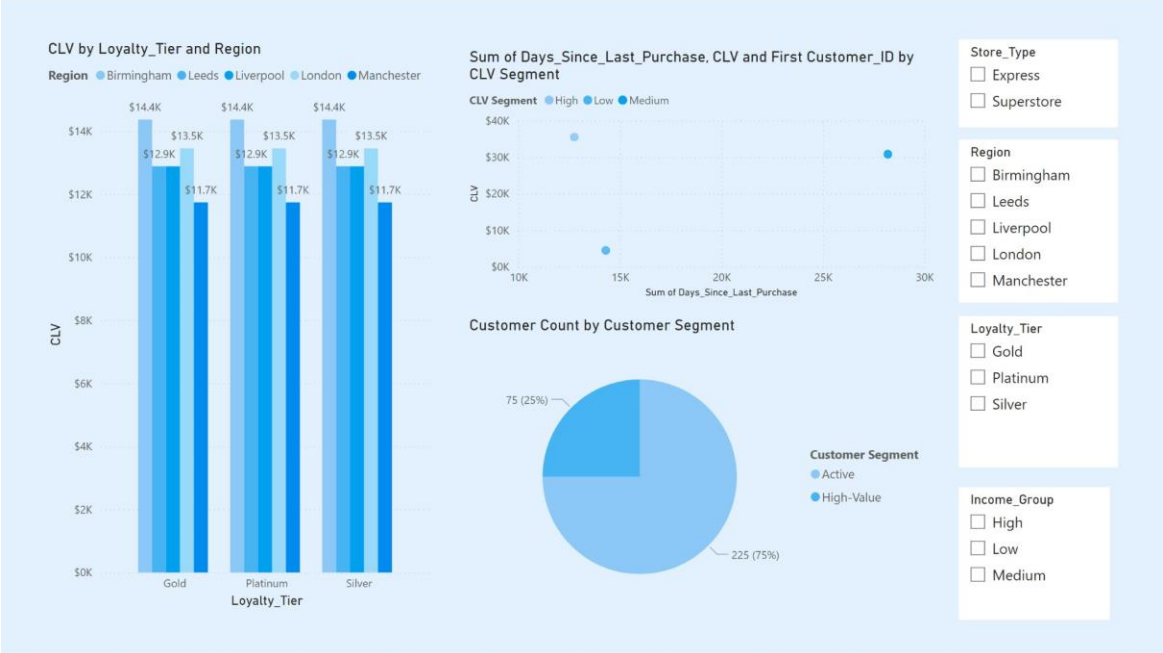
Loyalty & Promotions:



Store & Region Insights:



Customer Segmentation:



Insights / Observations:

The final dashboard provides a complete view of customer retention performance across demographics, loyalty tiers, promotions, and store regions. Interactive slicers allow users to explore specific segments and identify high-risk churn groups. The executive summary highlights key business recommendations, helping IKEA focus on improving loyalty rewards, targeted promotions, and store-level engagement strategies. This dashboard enables data-driven decision-making to enhance customer retention and long-term growth.

Conclusion

This project provides a clear view of IKEA's customer retention landscape. By combining churn analysis, loyalty behavior, promotion impact, and store performance, the dashboard supports data-driven decisions to improve customer engagement and long-term growth. Like carefully arranging furniture in a room, each insight fits together to build a stronger foundation for customer loyalty.

8. Video Explanation Link

https://www.loom.com/share/bee5761b6b0e49008776a0a8ce55ea18