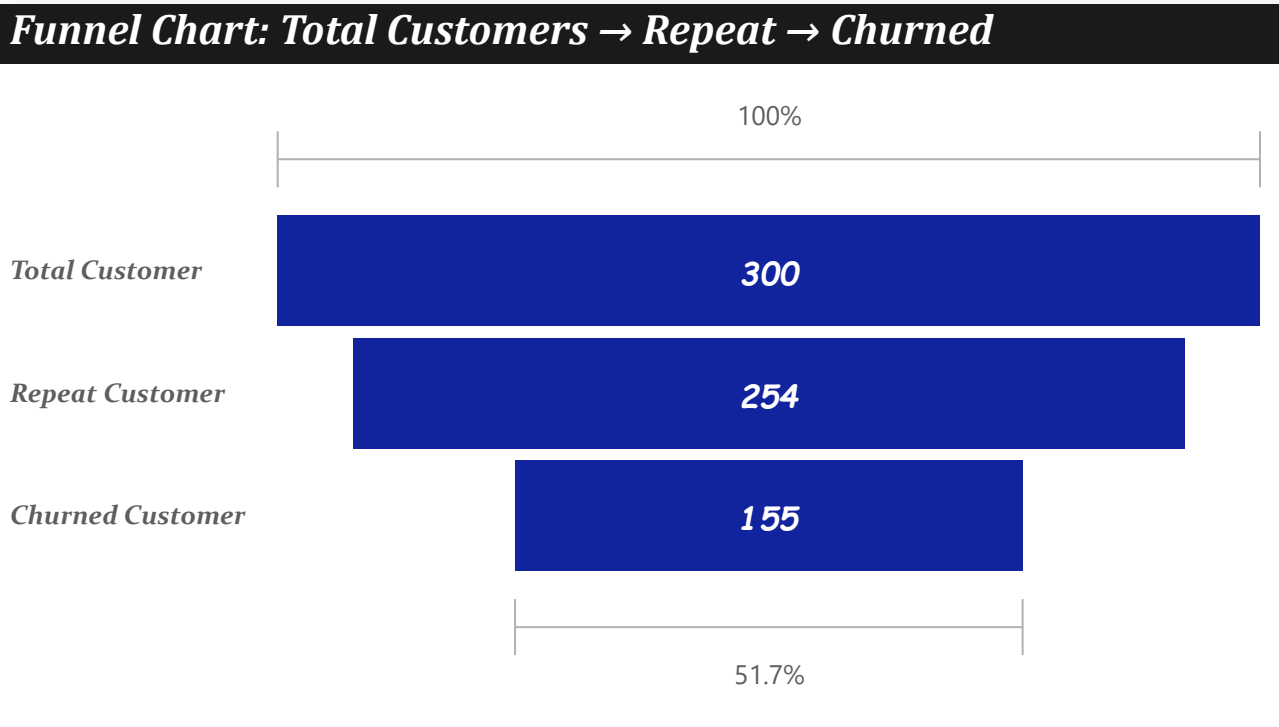
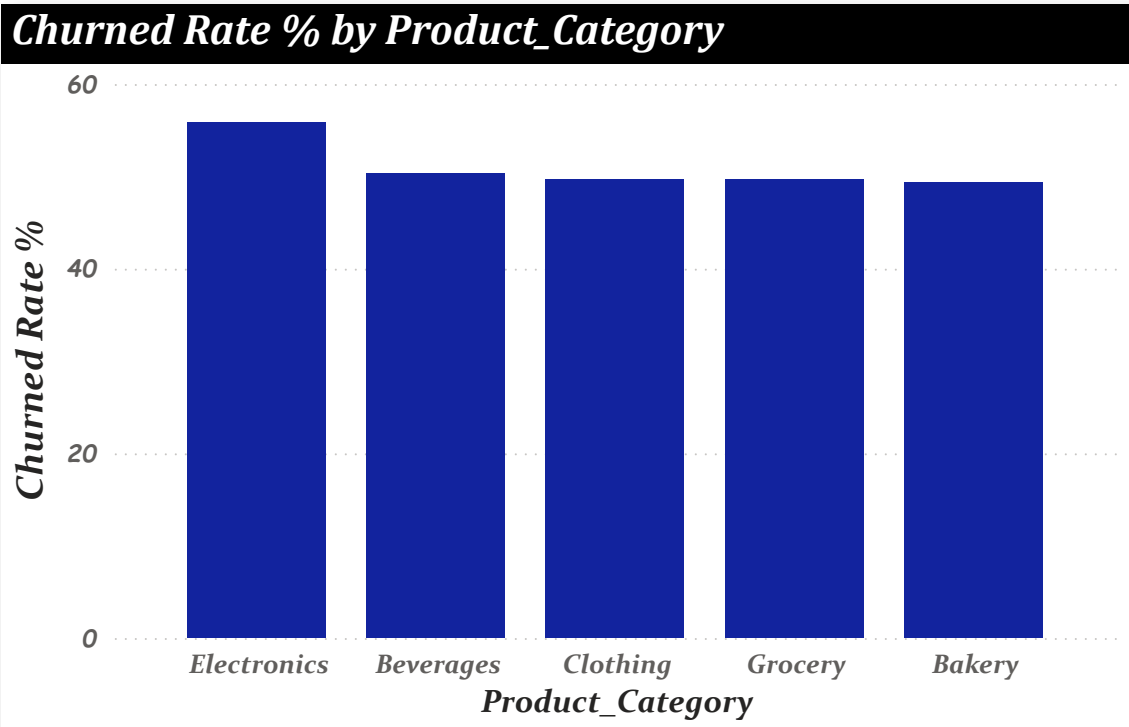
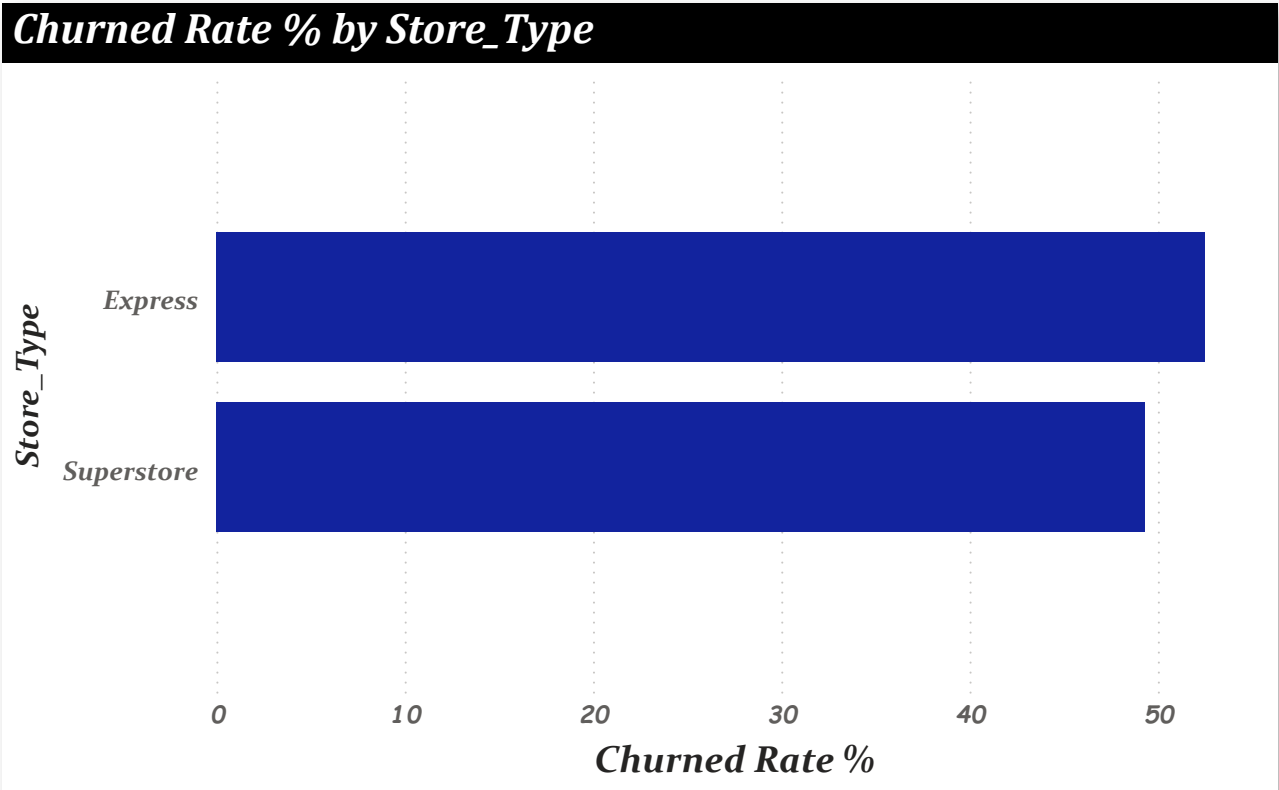
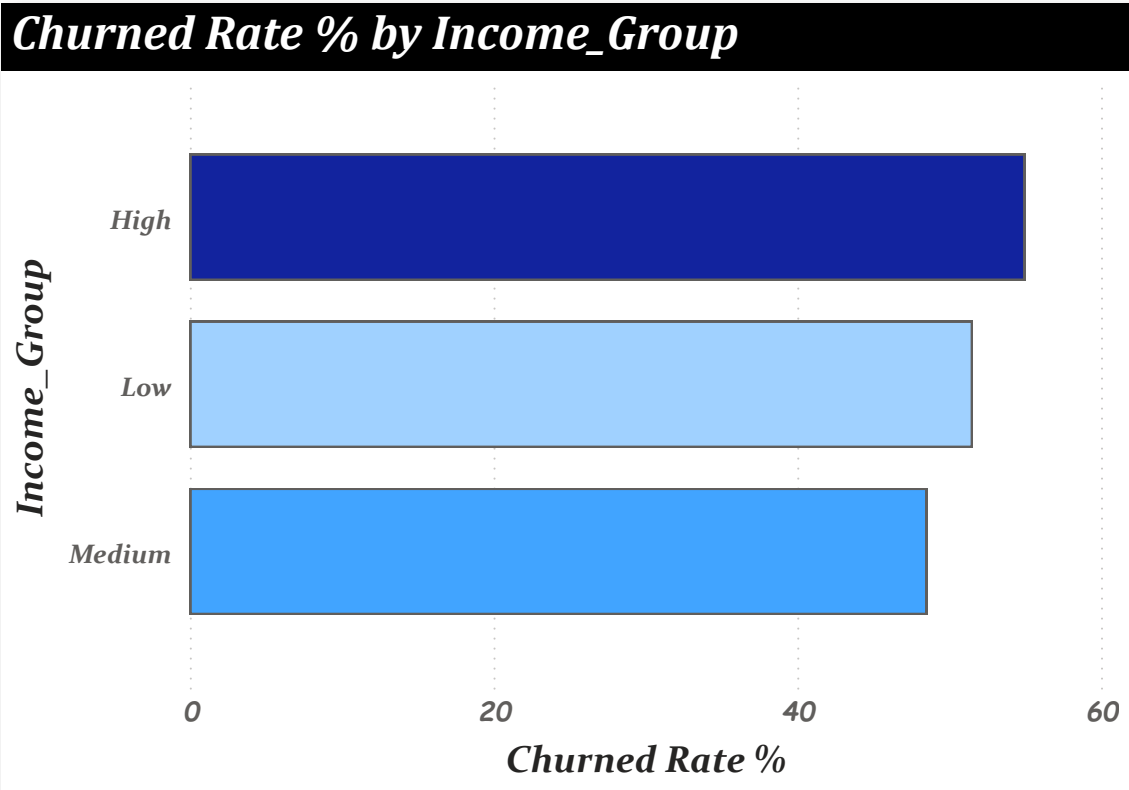
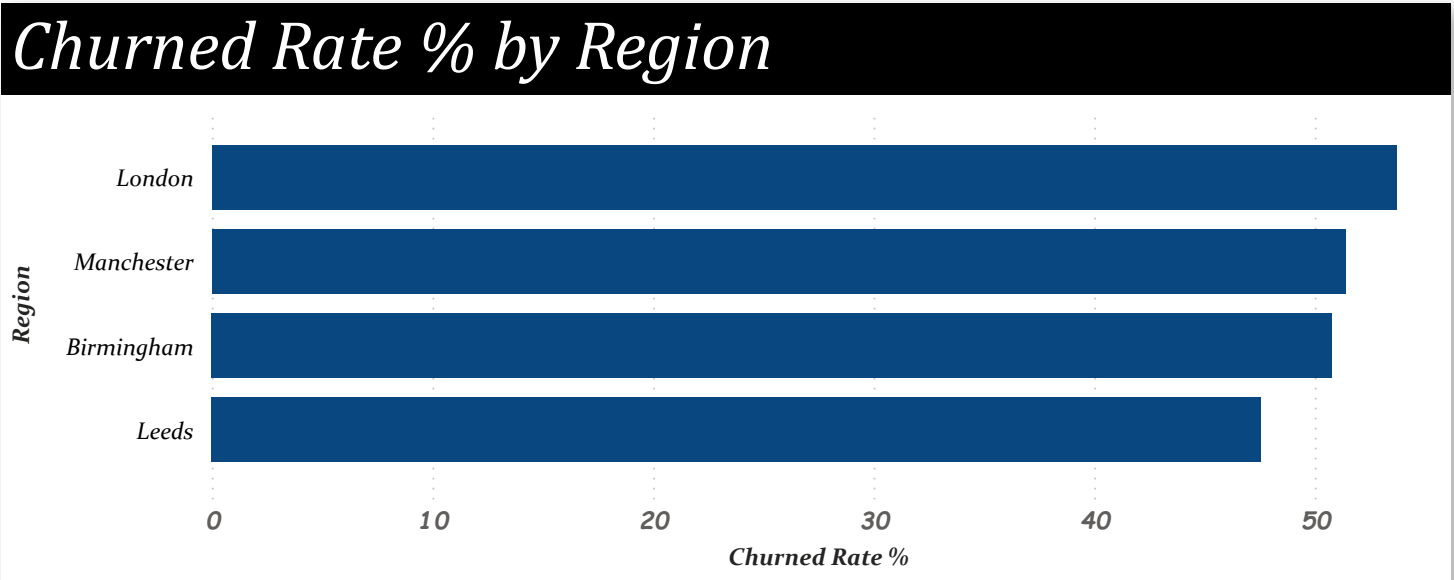
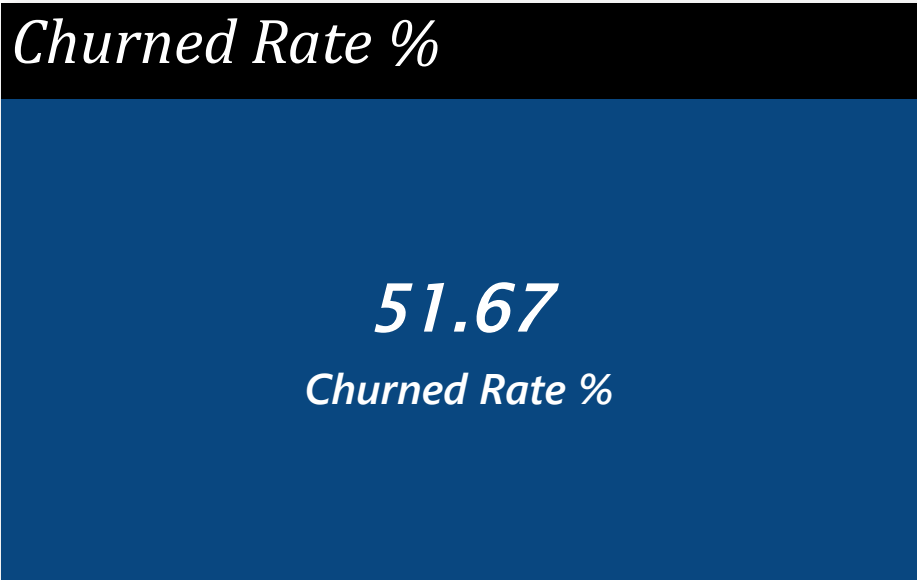


Task 1: Data Modeling and Cleaning

The objective of Task 1 is to prepare clean, structured, and analysis-ready data for customer retention analytics. The Following Steps has been mentioned below:

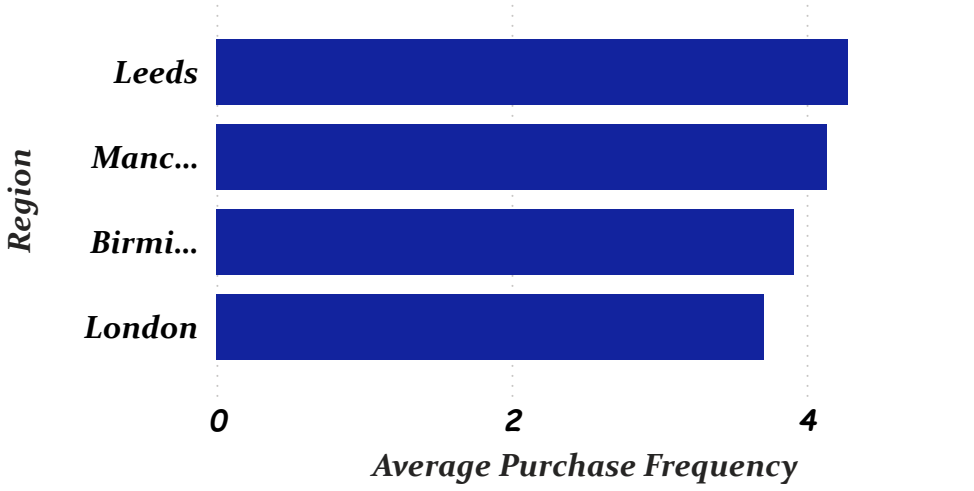
- *Multiple datasets related to customers, transactions, stores, loyalty programs, and churn were loaded into Power BI using the Power Query Editor.*
- *Duplicate records were removed to avoid double counting and ensure data accuracy.*
- *All date columns were converted to proper Date data types, and numeric columns such as transaction amount and loyalty points were standardized.*
- *Missing and null values were handled appropriately to maintain data consistency.*
- *Calculated columns were created using DAX to compute membership duration and extract year and month from transaction dates.*
- *Proper one-to-many and many-to-one relationships were established in the data model.*

Task 2: Churn and Retention Metrics

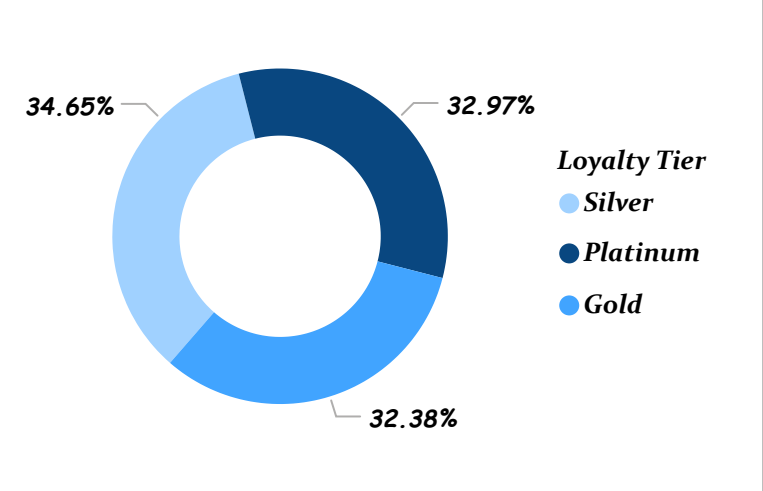


Task 3: Repeat Purchase Analysis

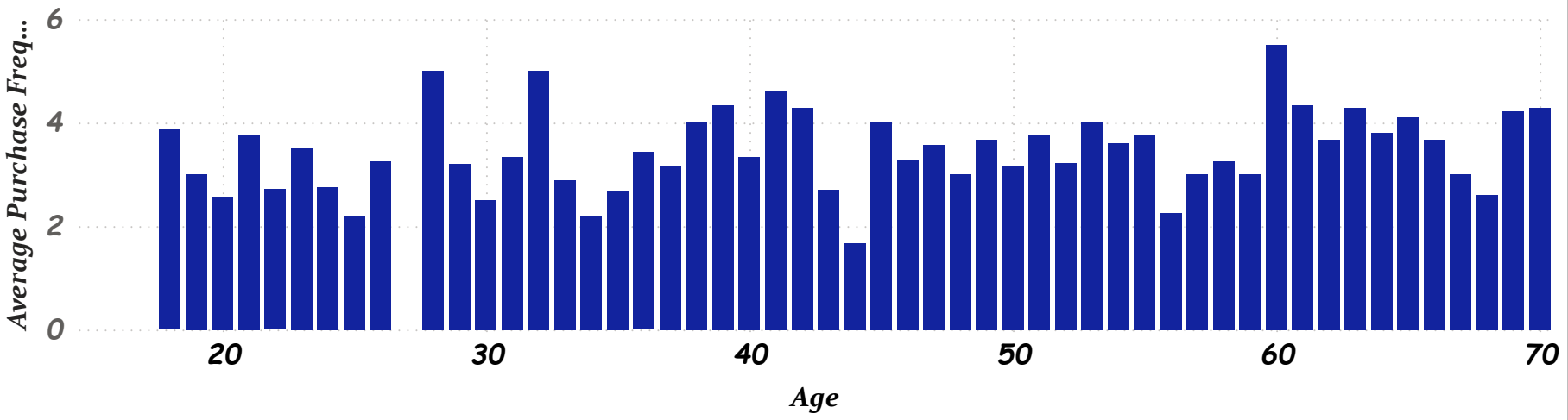
Average Purchase Frequency by Region



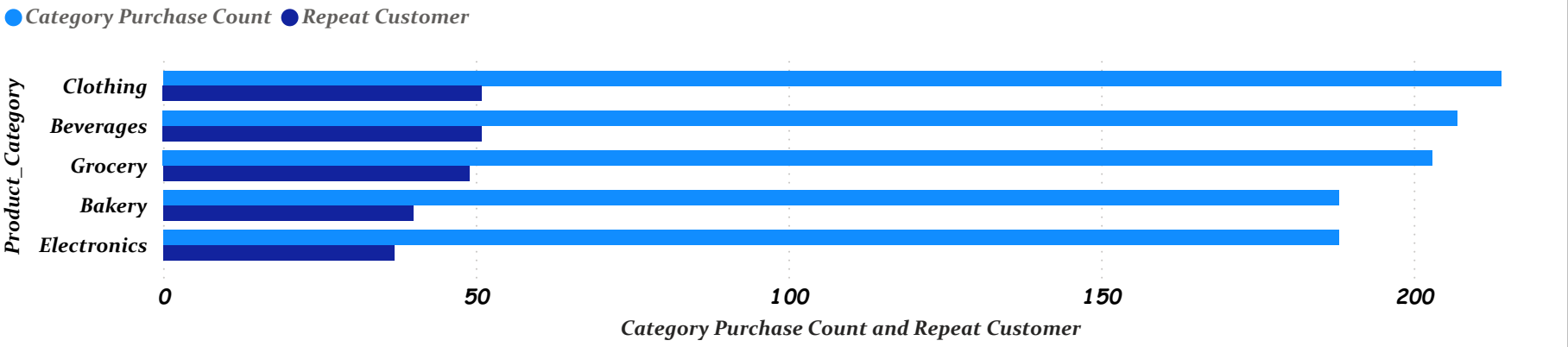
Average Purchase Frequency by Loyalty_Tier



Average Purchase Frequency by Age



Category Purchase Count and Repeat Customer by Product_Category

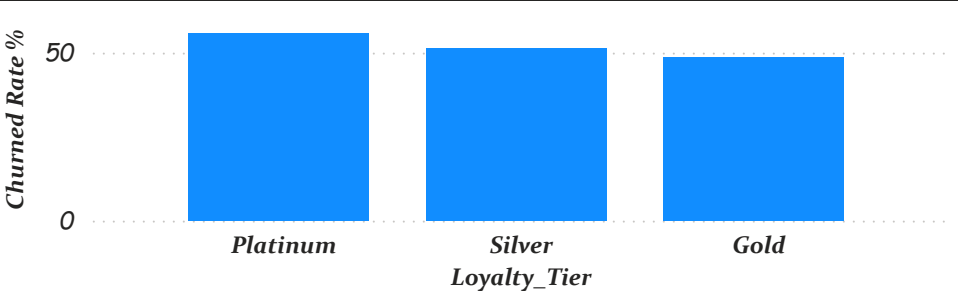


Identify product categories most frequently bought by loyal customers

Loyal customers most frequently purchase **Grocery, Clothing, and Bakery products**. These categories show strong repeat behavior and stable customer engagement, while Electronics shows lower loyalty and requires improvement strategies.

Task 4: Promotion & Loyalty Impact

Churned Rate % by Loyalty_Tier



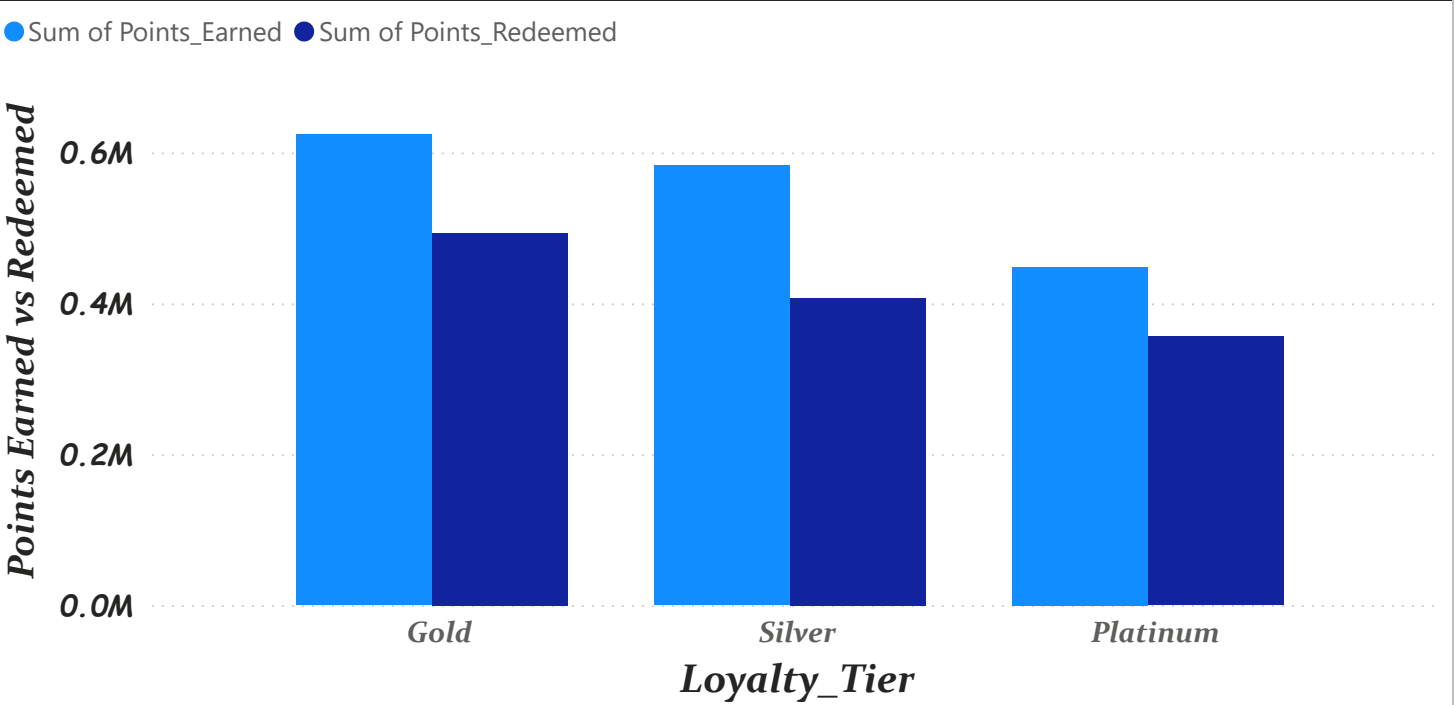
Silver Tier (Low Engagement / High Churn)

- Simplify redemption by offering low minimum points rewards
- Provide frequent, small-value promotions to encourage repeat visits
- Send reminder notifications for unused or expiring points
- Introduce welcome-back offers after inactivity

Gold Tier (Moderate Loyalty / High Potential)

- Offer bonus points on repeat purchases
- Enable faster redemption options on popular products
- Provide personalized offers based on purchase history
- Introduce tier upgrade incentives

Points Earned vs Redeemed by Tier

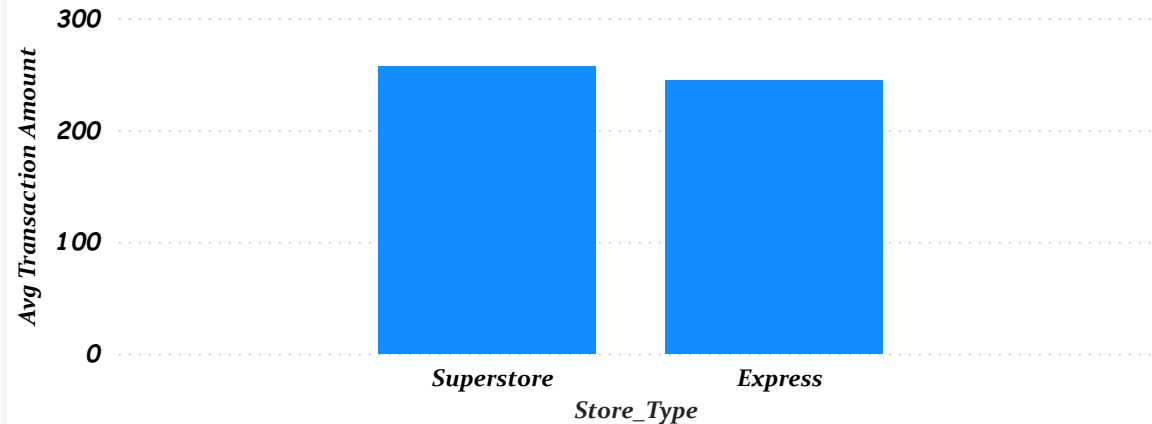


Platinum Tier (High Loyalty / Low Churn)

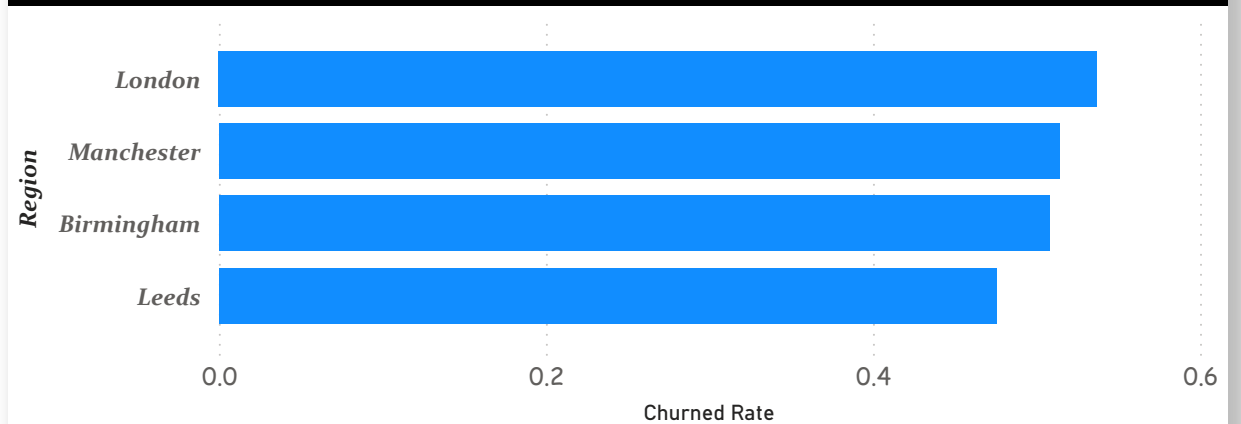
- Provide exclusive, non-discount rewards (VIP access, priority service)
- Offer premium redemption options instead of frequent discounts
- Recognize loyalty through status benefits and appreciation rewards
- Avoid over-promotion to protect customer experience and margins

Task:5 Store Performance vs Retention

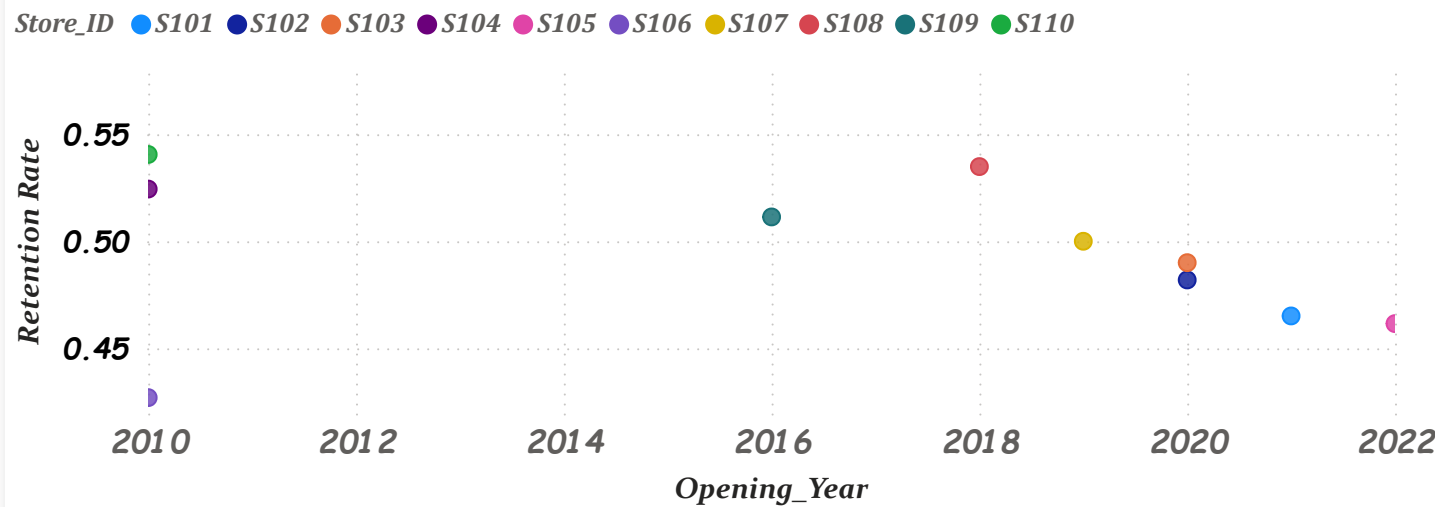
Avg Transaction Amount by Store_Type



Churned Rate by Region



Correlation: Store Opening Year vs Retention

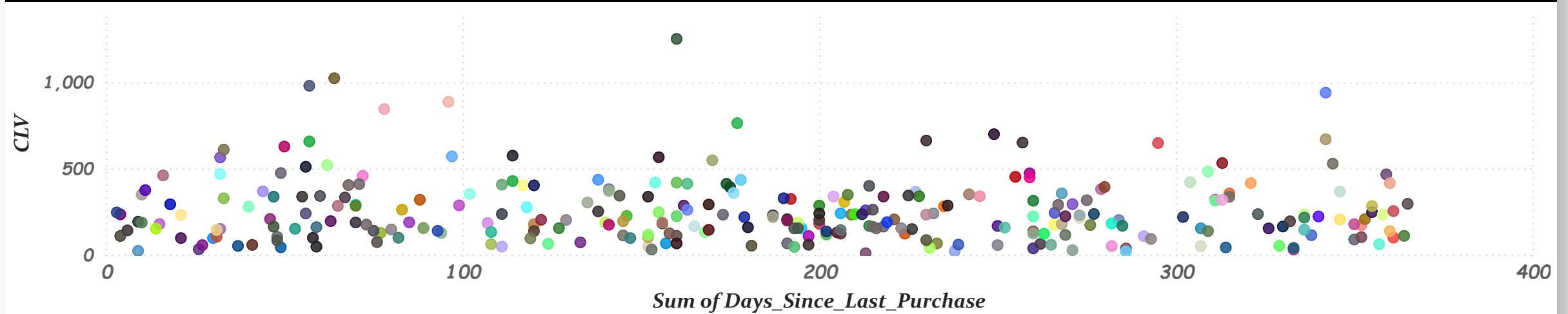


Recommendation where Store run there Campaign.

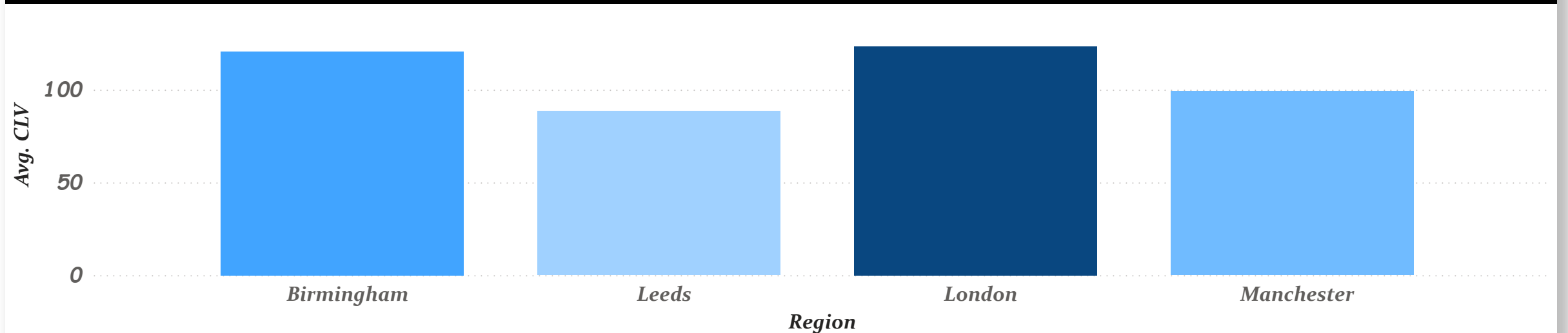
- Run the Campaigns with the **region like London & Manchester** due to the high churn Customer.
- **Improve Service quality** in all over the region.
- Introduce the use of **Loyalty bonus on higher bill amount**.
- Introduce the offers and trained the staff **help customer for the cross-selling**.
- **Provide more points** for the first purchases in the newly opened stores.
- Add region based discounts in the **express stores**.

Task 6: Customer Value (CLV) Analysis

Sum of Days_Since_Last_Purchase and CLV



Avg. CLV by Region



Overview KPIs (Churn, CLV, Repeat Rate)

300

Total Customer

249.35K

Total Amount Spent

51.67

Churned Rate %

254

Repeat Customer

250.35

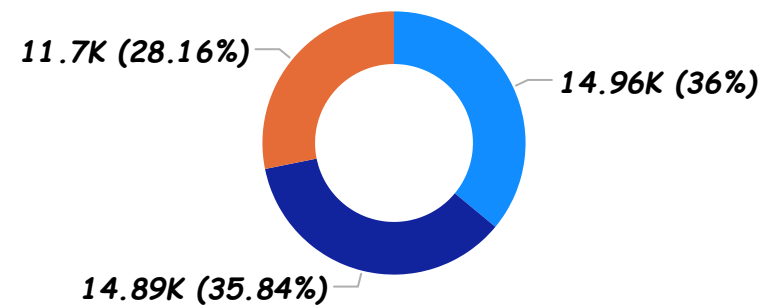
Avg. CLV

Churned Rate % by Region



Customer Distribution by Loyalty Tier

● Silver ● Gold ● Platinum



Region

- ☐ Birmingham
- ☐ Leeds
- ☐ London
- ☐ Manchester

Loyalty_Tier

- ☐ Gold
- ☐ Platinum
- ☐ Silver

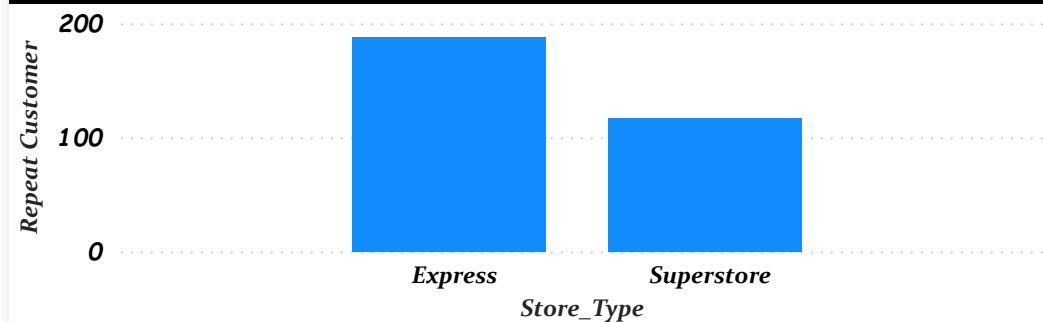
Income_Group

- ☐ High
- ☐ Low
- ☐ Medium

Store_Type

- ☐ Express
- ☐ Superstore

Repeat Customer by Store_Type

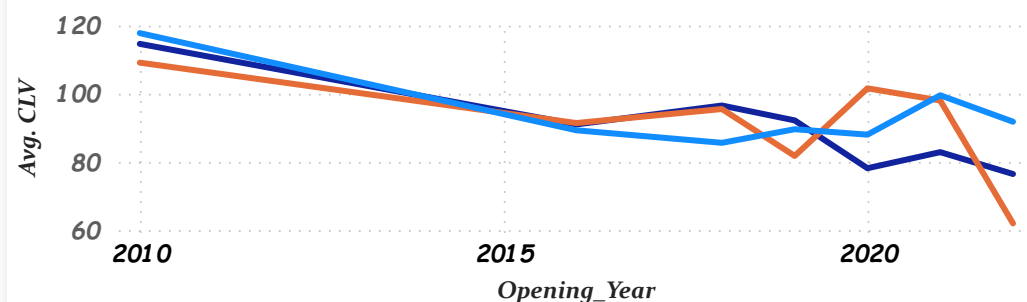


Where should they focus next?

- Focus on customers with declining purchase frequency to **improve retention**.
- Prioritize low-sales locations by implementing targeted **local marketing strategies**.
- Enhance **reward redemption, engagement strategies**, and personalized incentives.

Avg. CLV by Opening_Year and Loyalty_Tier

Loyalty_Tier ● Gold ● Platinum ● Silver

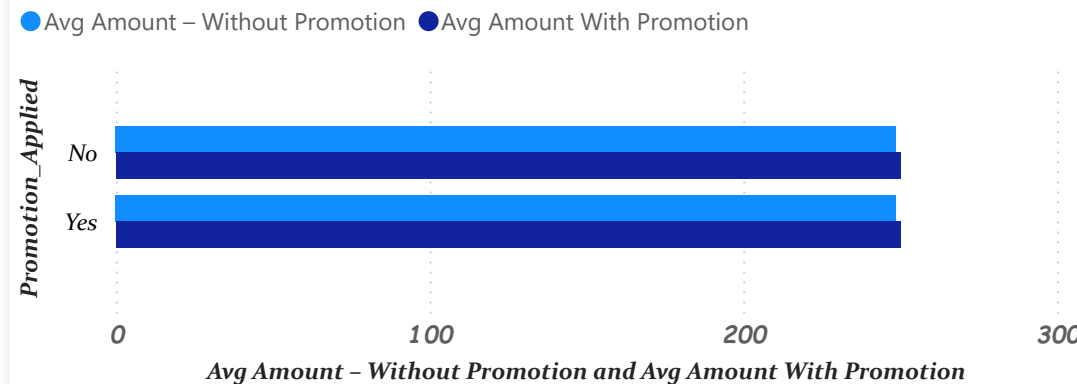


What Should Tesco Do to Retain More Customers?

- Enhance loyalty benefits to increase **retention and repeat purchases**.
- Deliver **targeted discounts** based on customer behavior and preferences.
- Implement localized strategies to **boost sales in underperforming regions**.

Loyalty & Promotion Impact

Average Purchase Amount: With vs Without Promotion



51.67

Churned Rate %

0.51

% Promotion Usage

51.00

% Promotion Trans...

254

Repeat Customer

Region

- ☐ Birmingham
- ☐ Leeds
- ☐ London
- ☐ Manchester

Loyalty_Tier

- ☐ Gold
- ☐ Platinum
- ☐ Silver

Income_Group

- ☐ High
- ☐ Low
- ☐ Medium

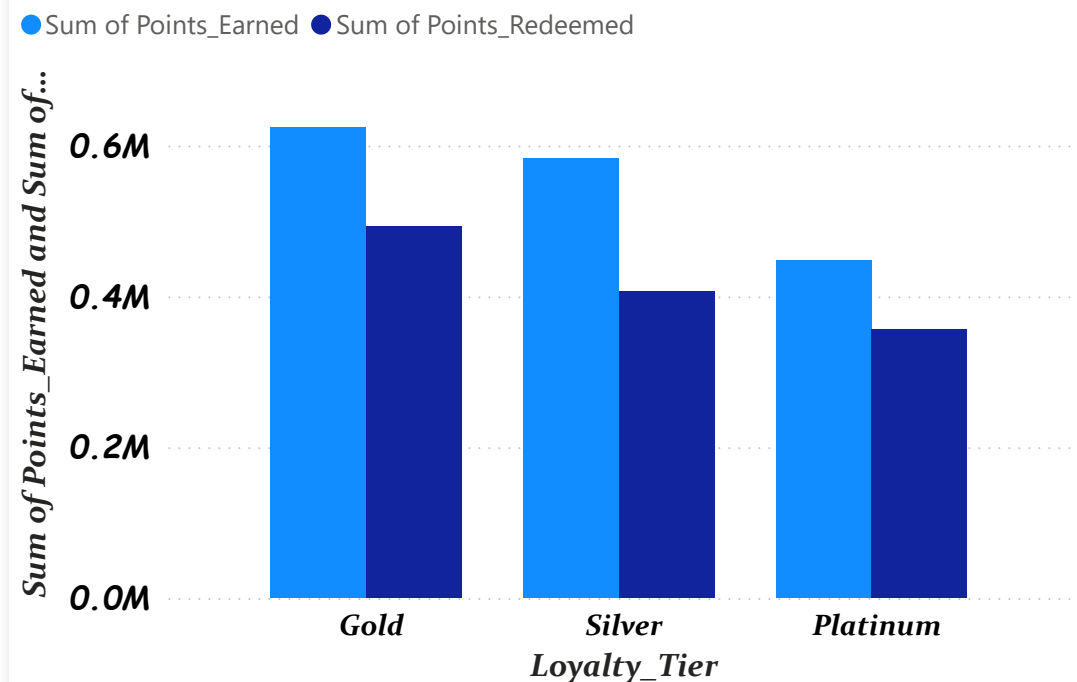
Store_Type

- ☐ Express
- ☐ Superstore

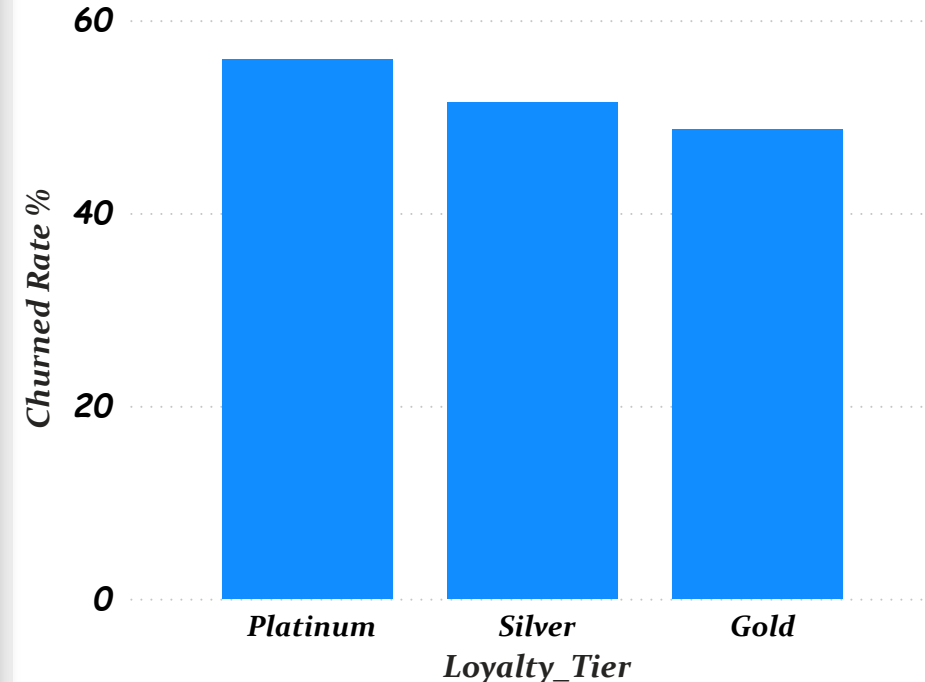
Product_Categ...

- ☐ Bakery
- ☐ Beverages
- ☐ Clothing
- ☐ Electronics
- ☐ Grocery

Point earned by Loyalty Tier



Churned Rate % by Loyalty_Tier



What Should Tesco Do to Retain More Customers?

- Enhance **reward structure** to increase engagement and customer retention.
- Target inactive customers** with personalized offers and incentives.
- Offer **higher reward points** to encourage repeat purchases.

Where should they focus next?

- Focus marketing efforts where **churn % is high**.
- Focus on customer redeemed points for the use of the points in every purchase.
- Identify **product categories** with low repeat customers.

Store and Region Insights

249.35K

Total Revenue

300

Total Customer

254

Repeat Customer

51.67

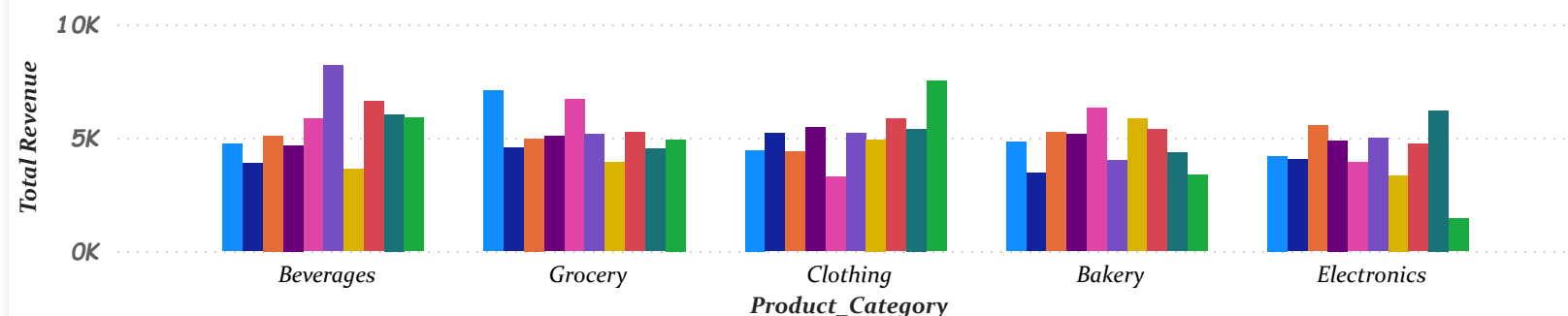
Churned Rate %

10

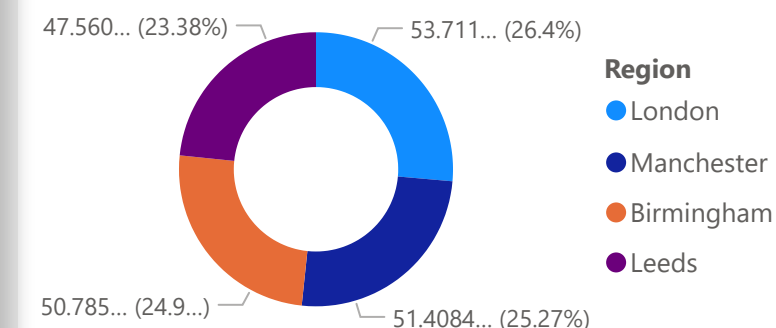
Total Store

Total Revenue by Product_Category and Store_ID

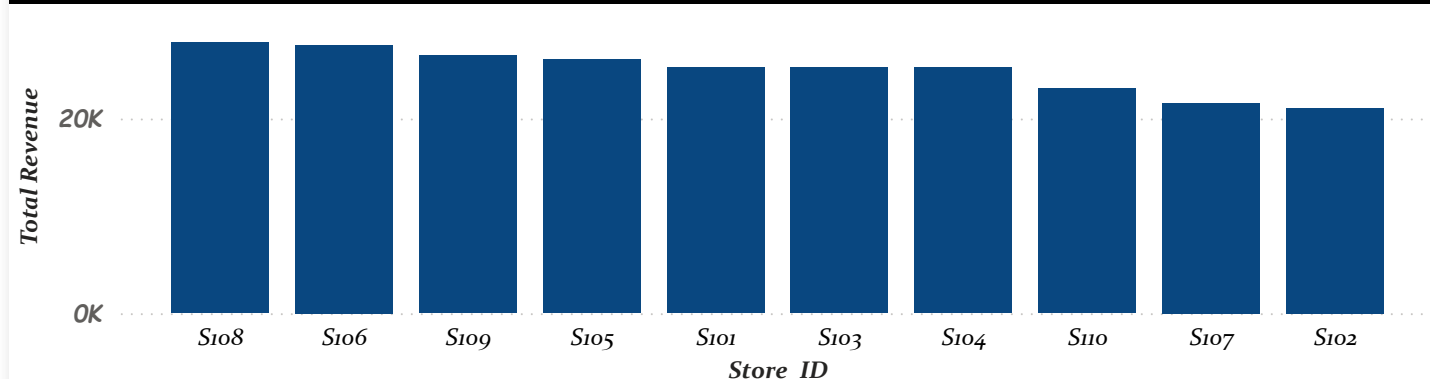
Store_ID ● S101 ● S102 ● S103 ● S104 ● S105 ● S106 ● S107 ● S108 ● S109 ● S110



Churned Rate % by Region



Total Revenue by Store_ID



Avg Transaction Amt. by Store_Type



What Should Tesco Do to Retain More Customers?

- Focus on **product categories generating high revenue** with the stores.
- TESCO should improve **service quality, product availability** and so on.
- TESCO should **run region-specific offers** and promotions help to reduce regional customers.

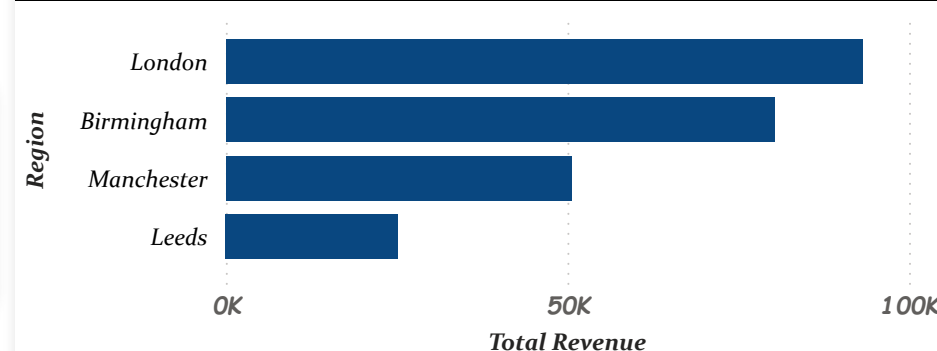
Store_Type

- ☐ Express
- ☐ Superstore

Region

- ☐ Birmingham
- ☐ Leeds
- ☐ London
- ☐ Manchester

Total Revenue by Region



Where should they focus next?

- Focus marketing on **categories that generate the most revenue**.
- Analyze regions with moderate revenue but **strong customer base**.
- Expand **inventory and promotional activities** in those locations.

Income_Group

- ☐ High
- ☐ Low
- ☐ Medium

Loyalty_Tier

- ☐ Gold
- ☐ Platinum
- ☐ Silver

Customer Segmentation

155

Churned Customer

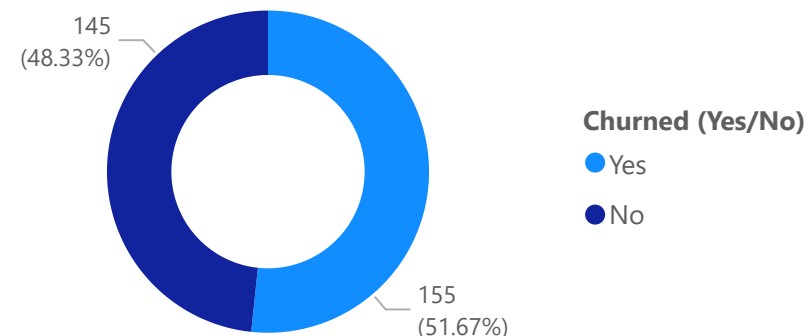
300

Total Customer

254

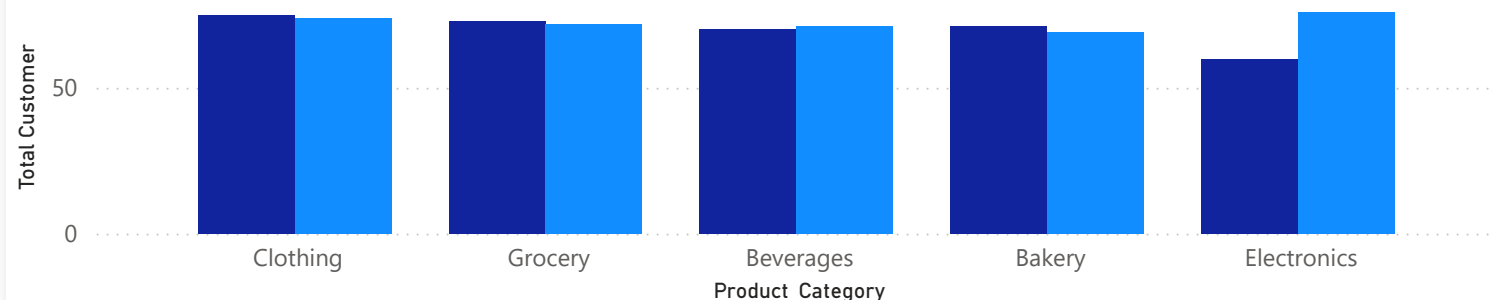
Repeat Customer

Total Customer by Churned (Yes/No)



Total Customer by Product_Category and Churned (Yes/No)

Churned (Yes/No) ● No ● Yes



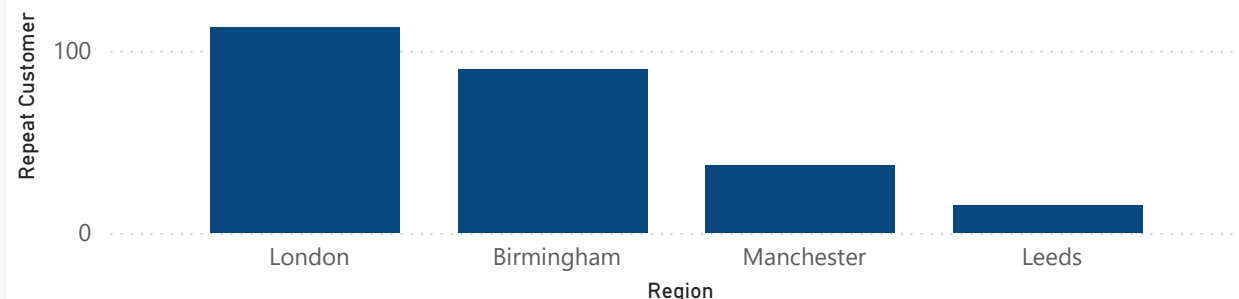
Store_Type

- ☐ Express
- ☐ Superstore

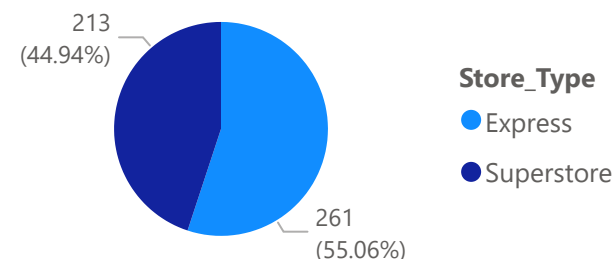
Loyalty_Tier

- ☐ Gold
- ☐ Platinum
- ☐ Silver

Repeat Customer by Region



Total Customer by Store_Type



Income_Group

- ☐ High
- ☐ Low
- ☐ Medium

What Should Tesco Do to Retain More Customers?

- **Increase customer interaction** through improved rewards.
- Enhance service quality and product availability **in express**

Where should they focus next?

- Boost sales through **promotions and strategic pricing** in electronics.
- Implement targeted campaigns to improve retention in **Leeds and Manchester**.
- Develop **retention strategies** to minimize overall customer attrition

Region

- ☐ Birmingham
- ☐ Leeds

Project Explanation Video

Can Copy and paste to see either.

<https://drive.google.com/file/d/1zuCGfsKqCLGQsWB46rtHmmNY3gZBBova/view?usp=sharing>