

Executive Summary

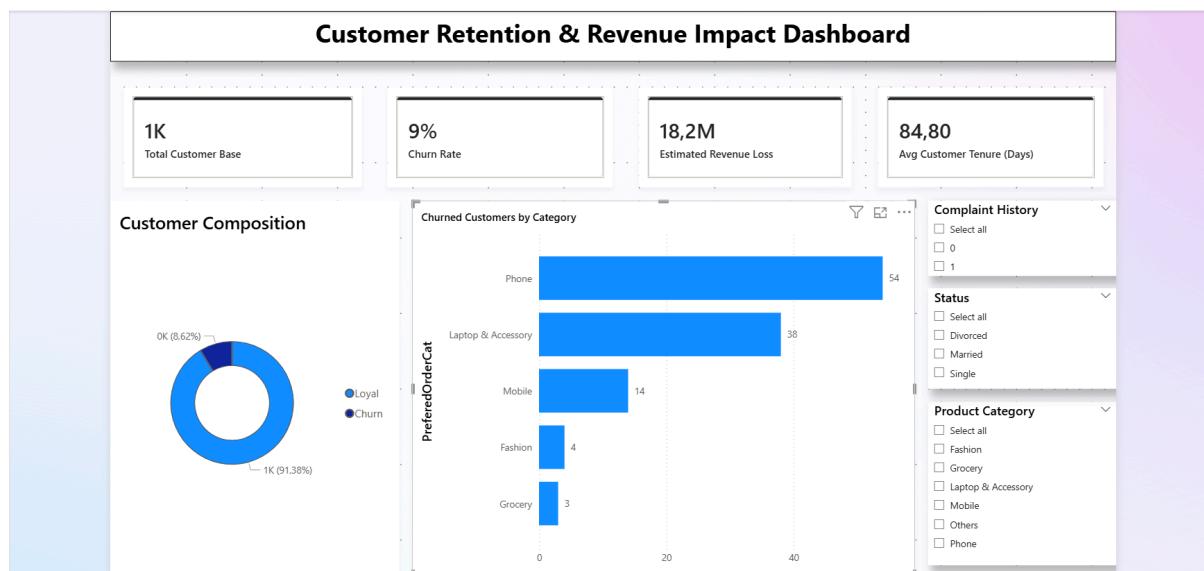
1.1 Project Overview

This project aims to analyze and predict customer churn patterns within a large-scale e-commerce platform. By leveraging historical customer data, the analysis identifies key behavioral drivers and financial impacts associated with customer attrition. The primary objective is to provide stakeholders with actionable insights to optimize retention strategies and safeguard annual revenue.

1.2 Key Performance Indicators (KPIs)

Based on the **Executive Customer Retention Overview**, the current health of the customer base is summarized as follows:

- Total Customer Base:** 1,000 active customers.
- Current Churn Rate:** 9%, indicating a significant segment of the population is transitioning away from the platform.
- Estimated Revenue Loss:** **\$18.2M**, representing the total historical spend of churned customers that is no longer being captured.
- Average Customer Tenure:** 84.8 days, suggesting that churn often occurs within the first three months of the customer lifecycle.



1.3 Strategic Highlights

The preliminary analysis from the executive dashboard reveals critical areas of concern:

- Category Vulnerability:** The **Phone** category is the highest contributor to churn, accounting for 54 lost customers, followed closely by **Laptop & Accessory** with 38.
- Churn Composition:** While 91.38% of the base remains loyal, the 8.62% churn segment represents a substantial financial leak that requires immediate strategic intervention.

1.4 Data Integrity & Quality Assurance

To ensure the accuracy of financial reporting, a rigorous data auditing process was conducted:

- **Outlier Remediation:** Initial data assessments identified extreme anomalies in the `TotalSpend` column (reaching quadrillion scales).
- **Filtering Methodology:** A threshold filter of `<$500,000` was implemented via Power Query. This removed technical noise while preserving high-value legitimate transactions, resulting in the stabilized and realistic **\$18.2M** revenue loss figure seen in the final report.