

Executive Summary – Customer Churn Analysis

The Customer Churn Analysis project was designed to understand the key drivers behind customer attrition and identify actionable strategies to improve retention rates. The dataset contained information on customer demographics, account details, subscription plans, and service usage patterns.

1. Data Overview:

The dataset comprised thousands of customer records, including features like gender, tenure, contract type, monthly charges, payment method, and churn status.

Approximately 26% of customers churned, indicating a significant business concern.

2. Key Insights:

Contract Type: Customers with month-to-month contracts accounted for ~88% of total churn. Customers with long-term contracts (1–2 years) had churn rates below 10%.

Payment Methods: Electronic check users had the highest churn (~45%), compared to credit card users (~15%).

Tenure Impact:

Customers with tenure less than 12 months churned at 3x higher rates compared to loyal customers (>24 months).

Monthly Charges:

Customers with higher monthly charges (> \$80) had ~2x higher churn than low-paying customers.

Demographics:

Gender had minimal impact on churn rates, but senior citizens churned more (~40%) than non-senior customers (~24%).

3. Visual Analysis:

Bar Charts for churn by contract type and payment method clearly highlighted risk groups.

Heatmaps revealed correlations: Churn positively correlated with monthly charges and negatively with tenure. Pie Charts showed churn contribution by gender and senior citizen status.

Stacked Bar Charts displayed churn across service categories (internet, streaming, tech support).

4. Business Implications

Customer Retention: Encourage long-term contracts through discounts and incentives.

Pricing Strategy: Introduce tiered pricing for high-charge customers to reduce dissatisfaction.

Payment Method Optimization: Offer loyalty rewards or convenience options for electronic check users, the most at-risk group.

Onboarding Experience: Implement personalized offers and better customer support for new customers to reduce early churn.

5. Recommendations:

Launch loyalty programs for customers with low tenure.

Provide bundled services at discounted rates to high-charge customers.

Monitor senior citizens and electronic check users closely for early intervention.