

Executive Summary and Recommendation

This analysis evaluates patterns in customer churn using data exploration, transformation, and rich visualizations. The insights highlight customer segments at risk and areas where strategic interventions can reduce attrition and improve satisfaction.

Key Insights and Observations

1. Churn Rate Overview

A pie chart analysis shows that 26.54% of customers have churned.

This level of churn reflects a need for deeper customer engagement and targeted retention strategies.

2. Demographics & Churn

Senior Citizens (aged 65+) are significantly more likely to churn:

Among seniors, ~42% have churned, compared to ~23% among non-seniors.

Gender has no major impact on churn based on your grouped bar charts.

3. Tenure Duration

Customers with short tenure (1–2 months) show much higher churn rates than long-term users.

Those with tenure over 20 months exhibit strong loyalty, showing lower than 10% churn.

This trend indicates that retention efforts should focus especially on new users during their first few months.

4. Contract Type Impact

Contract type plays a major role:

Month-to-month customers have a 45% churn rate.

In contrast, 1-year contracts have around 11% churn, and 2-year contracts only 3–5% churn.

Encouraging longer-term contracts can significantly reduce churn.

5. 🌐 Service Subscription Trends

Most users subscribe to:

PhoneService

InternetService (mostly DSL or Fiber optic)

Churn patterns by Internet type:

Fiber optic users have higher churn (~30%).

DSL users churn less (~19%).

Customers with no internet churn the least (~8%).

6. 🛡️ Add-On Services Reduce Churn

Services like OnlineSecurity, OnlineBackup, and TechSupport strongly influence churn:

Customers without these services have up to 30–35% churn.

Those with them average around 10–15% churn.

StreamingTV, StreamingMovies, and DeviceProtection users also churn less (~18%), showing that entertainment and protection bundles promote stickiness.

7. 🇺🇸 Payment Method Behavior

Churn by payment method:

Electronic Check users have the highest churn (around 42%).

Credit Card, Bank Transfer, and Mailed Check users have lower churn (typically 10–20%).

This implies a possible trust or friction issue with electronic payments.

Strategic Recommendations

1. Strengthen onboarding and early-stage engagement for customers within their first 3 months.
2. Offer incentives for long-term contracts, especially targeting senior citizens and monthly subscribers.
3. Bundle essential services like security, support, and entertainment to increase customer stickiness.
4. Investigate and address concerns around Fiber optic internet quality or pricing competitiveness.
5. Promote or default to more reliable payment options to reduce churn from Electronic Check users.
6. Create targeted retention campaigns for high-risk groups: seniors, month-to-month users, and new customers without add-on services.