

# Telecom Customer Churn Analysis

## summary

This exploratory analysis was conducted on the Telecom Customer Churn dataset to identify the key factors driving customer attrition. The dataset revealed that **26.5% of customers have churned**, highlighting churn as a significant business challenge.

### Key Insights (in % terms)

#### 1. Overall Churn

- **26.5% of customers** have left the service, while **73.5% remain active**.

#### 2. Demographics

- **Senior Citizens** represent a smaller share of the customer base, but their churn rate is **significantly higher (~42%)** compared to non-senior citizens (~24%).
- **Gender** shows little variation in churn, with churn percentages for males and females nearly equal (around **26–27%**).

#### 3. Tenure

- Customers with **1–2 months of tenure** show very high churn (over **50%**).
- Customers with **long tenure (60+ months)** have a much lower churn rate (below **15%**), showing strong loyalty.

#### 4. Contract Type

- **Month-to-month contracts** have the highest churn rate (**43%**).
- **One-year contracts** show a much lower churn (**11%**), and **two-year contracts** have the least churn (**3%**).

#### 5. Services & Features

- Customers without **value-added services** (like Online Security, Device Protection, Tech Support) are more likely to churn.

- Customers with these services tend to stay, with churn rates reduced by **10–15%** compared to those without.

## 6. Payment Method

- Customers using **electronic check** as a payment method are far more likely to churn (around **45%**) compared to those using bank transfers, credit cards, or mailed checks (below **20%**).

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# Recommendations

**Early Retention Focus** – Engage customers in their **first 2–3 months** with loyalty programs, discounts, or personalized offers to reduce high early churn.

**Contract Incentives** – Promote **long-term contracts** by offering bundled discounts or extra benefits, as these significantly lower churn risk.

**Upsell Value-Added Services** – Encourage adoption of **security, backup, and support services**, which correlate with higher retention.

**Senior Citizen Programs** – Tailor **senior-friendly plans** and dedicated support to reduce churn in this vulnerable segment.

**Payment Method Strategy** – Provide **incentives to move away from electronic check** payments toward more stable options like credit card or bank transfer.