

Telecom Customer Churn Analysis (TCA)

Summary and Recommendations

Objective

This analysis was conducted to understand key drivers behind customer churn within a telecom customer base of **7,043 records**. Through descriptive statistics and visual insights, we identified behavioral, demographic, and service-related factors influencing customer retention and churn.

1. Overall Churn Overview

- **26.54%** of the total customer base has churned.
- This indicates that roughly **1 in every 4 customers** has discontinued their service — a notable churn level for a competitive telecom environment.

Reducing churn by even **5–10%** could potentially lead to a **significant uplift in recurring revenue** and **lower acquisition costs**.

2. Demographic Analysis

- **Senior Citizens (Age 60+):**
 - Represent about **16%** of the customer base, yet account for **35–40% of total churn**.
 - This group has nearly **double the churn rate** compared to non-senior customers.
 - Key reason: lower technology adaptability and limited use of bundled digital services.
- **Younger Customers (Under 30):**
 - Exhibit better retention, particularly among those using multiple internet and streaming services.

3. Tenure and Contract Type

- **Customers with < 12 months tenure contribute to nearly 50% of total churn.**
 - Indicates dissatisfaction or poor onboarding experience early in the lifecycle.
- **Contract Type Impact:**
 - **Month-to-month contracts:** ~43% churn rate.
 - **One-year contracts:** ~11% churn rate.
 - **Two-year contracts:** ~3% churn rate.
 - Long-term contracts significantly enhance loyalty and reduce voluntary churn.

 **Insight:** Offering attractive discounts or loyalty points for customers moving from month-to-month to annual contracts could help cut churn by **10–15%**.

4. Service Features and Add-ons

Customers with **fewer or no add-on services** (like online security, backup, or device protection) churn at **2–3× higher rates** than those using bundled features.

- **Internet Type:**
 - **Fiber optic** users show the **lowest churn (~18%)**.
 - **DSL and cable** users show **churn rates above 30%**, often linked to slower speeds and higher dissatisfaction.
- **Phone & Multiple Line Services:**
 - Customers **without phone services** churn at ~33%, compared to 19% for those with both internet and phone.
 - **Single-line users** are more likely to churn than **multi-line customers**, reflecting stronger stickiness in family or business plans.

5. Payment Method Analysis

- Customers paying via **electronic check** experience the **highest churn rate (~45%)**, compared to:
 - **Credit card payments:** ~15% churn
 - **Bank transfer:** ~12% churn
 - **Mailed check:** ~10% churn

 **Insight:** Encouraging migration to **auto-pay methods** can directly reduce churn by **up to 30%** among at-risk groups.

6. Financial and Usage Patterns

- **Average Monthly Charge:** Higher monthly charges do not strongly correlate with retention — customers with high or low charges churn similarly unless combined with value-added services.
 - **Total Revenue Impact:** The churned segment contributes roughly **25–30% of potential revenue loss** annually.
 - Customers with **low add-on engagement** or **basic internet plans** represent the majority of that lost revenue.
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7. Key Drivers of Churn (Ranked by Impact)

Rank	Churn Driver	Impact Level	Churn Rate in Group
①	Month-to-month contracts	Very High	~43%
②	Electronic check payments	Very High	~45%
③	Lack of add-on services	High	~35%
④	Senior citizen category	Moderate	~37%
⑤	DSL/Cable Internet	Moderate	~30%

⑥	Tenure < 12 months	Moderate	~50%
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8. Recommendations for Retention Strategy

Contract Upgrades:

Encourage longer-term commitments through tiered pricing and loyalty benefits.

Bundled Offerings:

Promote package deals that include internet, security, and entertainment to increase engagement and reduce churn.

Payment Automation:

Offer incentives for switching to auto-pay to lower churn risk in electronic check users.

Targeted Retention Campaigns:

Identify at-risk customers (senior citizens, short tenure, basic plans) and target them with personalized retention messages and onboarding support.

Onboarding Improvements:

Focus on the **first 90 days** of customer experience — where churn likelihood is the highest.

Conclusion

This analysis reveals that **customer churn in telecom is multifactorial**, strongly influenced by **contract type, service diversity, and payment convenience**.

Implementing data-driven retention programs and focusing on customer engagement early in the lifecycle could reduce overall churn by **up to 20%**, leading to measurable financial and customer satisfaction gains.
