

■ Executive Summary – Telco Customer Churn Analysis

The analysis of Telco's customer churn dataset (7,043 records, 21 variables) highlights critical insights into why customers leave. A churn rate of **26.54% ($\approx 1,869$ customers)** indicates a significant business challenge that requires immediate action.

■ Key Findings

Churn by Demographics

- Female churn: 27.2% vs. Male churn: 25.9%.
- Senior Citizens: 41% churn (nearly 2x higher than non-seniors at 23%).

Tenure & Loyalty

- ≤ 6 months tenure: Highest churn ($\approx 52\%$).
- > 2 years tenure: Lowest churn ($< 10\%$).
- The first 6 months is the most critical churn window.

Contract Type Influence

- Month-to-Month: 43% churn.
- One-Year Contracts: 11% churn.
- Two-Year Contracts: 3% churn.
- ■ Long-term contracts cut churn risk by 75–90%.

Service Features & Churn

- OnlineSecurity: 15% churn with vs. 42% without.
- TechSupport: 17% churn with vs. 40% without.
- Internet: DSL churn 18% vs. Fiber optic churn 41%.
- Bundling services reduces churn significantly.

Payment Method & Billing

- Electronic Check: 45% churn (highest).
- Credit Card/Bank Transfer: 16–18% churn.
- Paperless Billing: 34% churn vs. 19% for mailed billing.
- Billing and payment trust strongly influence retention.

■ Strategic Recommendations

- Early Retention Focus (First 6 Months): Onboarding support, loyalty discounts, proactive engagement.
- Promote Long-Term Contracts: Incentivize 1–2 year plans with bundled services.
- Expand Value-Added Services: OnlineSecurity, TechSupport, Backup adoption.
- Improve Fiber Optic Experience: Address quality and pricing issues.

- Tackle Payment-Linked Churn: Encourage safer payment methods over electronic checks.
- Demographic-Specific Programs: Senior-friendly plans and targeted engagement.

■ Conclusion

The Telco churn problem is concentrated among specific groups: new customers (<6 months), month-to-month contracts, electronic check payers, and those lacking key services. By focusing retention efforts here, churn can be reduced by an estimated 30–40%, directly improving Customer Lifetime Value (CLV). Churn is not just a satisfaction issue—it is a strategic opportunity. Converting at-risk groups into loyal customers will strengthen profitability, stability, and competitive edge.