

Executive Summary – Customer Churn Analysis

This analysis explores customer churn behavior in a telecom dataset containing 7,043 customers and 21 variables. The goal is to identify key churn drivers and provide actionable recommendations.

Key Findings

1. Churn Overview

- Overall churn rate: ~26.5% (about 1 in 4 customers leave).
- Indicates a moderate-to-high retention issue for the business.

2. Impact of Value-Added Services

Customers lacking extra services are far more likely to churn:

- Online Security: With = 15% churn, Without = 42% churn
- Tech Support: With = 16% churn, Without = 42% churn
- Online Backup: With = 22% churn, Without = 40% churn

Insight: Customers with at least one support or protection service are 2–3x less likely to leave.

3. Internet Service Type

- Fiber Optic users: 42% churn
- DSL users: 23% churn
- No Internet Service: ~7% churn

Insight: Fiber optic users churn at nearly double the rate of DSL users, suggesting dissatisfaction with pricing, speed consistency, or service quality.

4. Payment Method Influence

- Electronic Check: 45% churn (highest)
- Credit Card / Bank Transfer / Mailed Check: 15–20% churn

Insight: Customers using electronic checks are over twice as likely to churn. This may reflect transaction trust issues, higher fees, or lower financial stability.

5. Tenure and Customer Lifecycle

- New Customers (<12 months tenure): ~60% churn
- Medium Tenure (1–3 years): ~35% churn
- Long-Term Customers (>5 years): <10% churn

Insight: The first year is critical for retention. Once customers stay beyond ~2 years, loyalty increases significantly.

6. Charges and Revenue Impact

- Customers with higher monthly charges (>₹90): >40% churn, especially with fewer bundled services
- Customers with lower charges (~₹20–40): <20% churn

Insight: Customers paying more but receiving fewer benefits feel dissatisfied and leave faster.

Strategic Recommendations

1. Boost Value-Added Service Adoption through bundles and discounts.
2. Improve Fiber Optic Experience (pricing, outages, loyalty discounts).
3. Reduce Churn in Electronic Check Users by incentivizing auto-debit options.
4. Retain New Customers (<1 year) with onboarding programs and free add-ons.
5. Revenue Management: Ensure higher charges include bundled benefits to maintain value perception.

Business Impact

- Potential churn reduction: from ~26.5% to under 15%.
- Customer Lifetime Value: expected rise by 30–40%.
- Revenue uplift: bundling services could increase ARPU while improving retention.

This analysis provides clear visibility into who is churning and why, giving the company a roadmap for retention, pricing strategy, and service improvements.