

Executive Summary: Telco Customer Churn Analysis

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Overview

The Telco Customer Churn analysis examines patterns and factors that influence customer attrition using a dataset of customer demographics, service details, account information, and churn status.

Objectives

- Identify overall churn rate.
- Understand customer segments with high churn.
- Examine relationships between churn and tenure, contract type, payment method, services subscribed.
- Provide actionable insights to improve customer retention.

Key Insights

1. Overall Churn Rate

- 26.54% of customers have churned.

2. Churn by Customer Segment

- Senior Citizens: Approximately 41% churn rate vs. 23% for non-seniors.
- Contract Type:
 - Month-to-month: ~43% churn rate.
 - One-year: ~11%.
 - Two-year: ~3%.
- Payment Method:
 - Electronic Check: ~45% churn.
 - Other methods (bank transfer, credit card, mailed check): less than 20% churn.
- Tenure:
 - Customers with <2 months tenure are most likely to churn.
 - Long-term customers (more than 2 years) show significantly lower churn.

3. Churn by Service Subscription

- Customers without online security, tech support, or other bundled services are more prone to churn.

4. Churn by Gender

- Churn rate is similar across genders (~26%).

Visualizations Summary

- Pie Chart: Showed 26.54% churn rate overall.
- Bar Charts: Highlighted churn differences across contract type, payment method, senior citizen status.
- Stacked Bar Charts: Demonstrated proportion of churn among senior citizens.
- Histograms: Illustrated churn distribution across tenure (higher churn for newer customers).
- Count Plots: Explored churn by categorical variables including gender, payment method, and additional services.

Strategic Recommendations

- Strengthen onboarding and engagement in the first 2 months.
- Target retention campaigns towards month-to-month contract customers and senior citizens.
- Offer incentives to switch to longer-term contracts.
- Promote stable payment methods (bank transfer, credit card).
- Upsell bundled services (online security, tech support) to increase customer stickiness.

Conclusion

Churn is driven by short-term contracts, electronic payment preferences, lack of bundled services, and shorter tenure. By addressing these factors, the company can significantly improve retention and customer lifetime value.