



Executive Summary: Telco Customer Churn Analysis

This report explores customer churn trends using transactional and service data from a telecom company. The goal is to pinpoint why customers leave and what factors can enhance retention. The analysis involves data preprocessing, insightful visualizations, and key statistical findings.



Key Insights:

1. Overall Churn Rate:

- About **26.54%** of customers have churned — a significant portion requiring focused retention strategies.

2. Demographics and Churn:

- **Senior Citizens** are more likely to churn than younger customers.
- Churn is significantly **higher in customers with short tenure (1–2 months)**, indicating early dissatisfaction or unmet expectations.

3. Service Contracts:

- Customers with **Month-to-Month contracts** show the **highest churn rate**, while those with **One or Two-Year contracts** have much **lower churn**, reflecting the role of long-term engagement.

4. Internet Service Dependency:

- Customers **not using internet-based services** (e.g., Online Security, Tech Support) tend to be **more stable**.
- However, those who **do use services like StreamingTV and StreamingMovies** are **less likely to churn**, suggesting that **value-added services** improve satisfaction.

5. Service Usage and Churn:

- Across multiple service categories, the **"No" group (not using a service)** exhibits **higher churn** than those who use the services.

- This indicates that **lack of engagement or perceived value** in the services may lead to customer exits.

6. Payment Methods:

- Customers who pay via **Electronic Check** have a **notably higher churn rate** than those using other payment methods (like credit card or bank transfer), possibly due to lower automation or user friction.

Visual Highlights:

- Countplots and percentage-based stacked bar charts visually reinforce churn trends across contract types, service usage, and demographics.
- Strong visual contrasts emphasize the relationship between **engagement and retention** — customers using more services are clearly **more loyal**.

Key Takeaways & Strategic Actions

1. Retain Early Customers: Improve onboarding and engagement for customers in the first 3 months.
2. Convert to Long-Term Contracts: Offer incentives for upgrading from month-to-month to yearly plans.
3. Promote Internet-Based Add-ons: Provide bundled offers with security, backup, and entertainment features.
4. Target At-Risk Demographics: Tailor support and communication for Senior Citizens.
5. Discourage Manual Payment: Encourage auto-pay setups with small discounts or loyalty points.

Conclusion:

Your analysis clearly identifies churn-prone segments and key churn drivers. By focusing on:

- Long-term contracts,
- Increasing service usage (especially internet-based features),

- Targeting senior citizens with better onboarding and support,
- Addressing friction in payment methods,

...the telecom provider can improve customer satisfaction and reduce churn.