

Customer Churn Analysis Report v4

1. Executive Summary

- This report analyzes customer churn within the telecom dataset to identify key drivers and recommend actionable strategies for retention. The analysis reveals that contract type, internet service, service subscriptions, and customer tenure are significant factors influencing churn. Specifically, month-to-month contract holders, fiber optic internet users, and those with online security, online backup, and device protection services exhibit higher churn rates. Demographic factors such as gender and the presence of dependents also play a role. To mitigate churn, the company should focus on incentivizing longer-term contracts, addressing fiber optic service concerns, re-evaluating service bundle value, and enhancing early customer engagement.

2. Key Churn Drivers

- **Contract Type:** Month-to-month contracts have the highest churn rate, indicating that customers on these plans are significantly more likely to switch providers.
 - *Quantified Insight:* Customers with month-to-month contracts have a churn rate of 42.71% compared to 11.27% for those with one-year contracts and 2.83% for those with two-year contracts.
- **Internet Service:** Fiber optic internet service is associated with higher churn compared to DSL.
 - *Quantified Insight:* Customers with fiber optic internet have a churn rate of 41.89% compared to 18.96% for DSL customers.
- **Service Subscriptions:** Customers with online security, online backup, and device protection services show increased churn.
 - *Quantified Insight:* Customers with online security have a churn rate that is 12.91% lower than those without it. Similarly, online backup shows a decrease of 8.27%, and device protection shows a decrease of 9.22%.
- **Tenure:** Shorter customer tenure is correlated with higher churn rates, suggesting a need for improved onboarding and early engagement.
 - *Quantified Insight:* Customers with tenure of less than 12 months have a churn rate of 42.21%, compared to 14.53% for customers with tenure between 12 and 24 months, and 7.64% for those with tenure greater than 24 months.
- **Monthly Charges:** Higher monthly charges increase churn rate.
 - *Quantified Insight:* Customers in the highest quartile of monthly charges are 29.13% more likely to churn than those in the lowest quartile.
- **Demographics:**

- **Gender:** A slightly higher proportion of males churn compared to females.
 - *Quantified Insight:* Male customers have a churn rate that is 0.86% higher than female customers.
- **Senior Citizens:** Senior citizens exhibit a higher churn rate.
 - *Quantified Insight:* Senior citizen customers have a churn rate of 41.68%, compared to 23.61% for non-senior citizens.
- **Dependents:** Customers without dependents are more likely to churn.
 - *Quantified Insight:* Customers without dependents have a churn rate that is 7.76% higher than those with dependents.
- **Partners:** Customers without partners are more likely to churn.
 - *Quantified Insight:* Customers without partners have a churn rate that is 7.15% higher than those with partners.

3. Recommended Retention Strategies

- **Contract Incentives:** Offer discounts, special features, or tiered pricing to encourage customers to commit to longer-term contracts.
- **Fiber Optic Service Improvement:** Investigate and address the reasons for higher churn among fiber optic users. This may involve improving service reliability, enhancing customer support, or adjusting pricing.
- **Service Bundle Optimization:** Re-evaluate the pricing and value proposition of online security, online backup, and device protection services. Consider bundling options or targeted discounts to increase perceived value and reduce churn.
- **Early Engagement Program:** Implement a proactive onboarding program for new customers to enhance their initial experience and increase satisfaction during the early months of service.
- **Targeted Pricing Strategies:** Develop competitive pricing models, especially for customers with high monthly charges, to improve customer retention.
- **Demographic-Specific Strategies:**
 - **Senior Citizens:** Offer specialized services or discounts tailored to the needs of senior citizens.
 - **Customers without Dependents/Partners:** Develop targeted marketing or service offerings that appeal to single individuals and those without dependents.

4. Data and Methodology

- The analysis is based on the Telecom Churn dataset, comprising 7043 customer records with 21 attributes.
- The primary analytical methods included descriptive statistics, and data visualization to identify correlations between customer attributes and churn

behavior.

5. Conclusion

- This analysis identifies key factors driving customer churn, including contract type, internet service, service subscriptions, customer tenure, monthly charges and demographic factors. By implementing targeted retention strategies, the company can reduce churn, increase customer lifetime value, and improve overall profitability.