

Telecommunication Customer Churn Analysis

Summary and Recommendations

Objective

The analysis investigates customer churn patterns in the telecommunication sector, with a focus on:

- Payment methods.
- Contract types.
- Customer tenure.
- Demographic influences, such as seniority.

Key Insights

1. Contract Type and Churn

- **Month-to-month contracts** exhibit the highest churn rate at **42%**.
- Customers on **one-year contracts** have a churn rate of **11%**, and those on **two-year contracts** have a churn rate of just **3%**.
- **Insight:** Long-term contracts significantly reduce churn, possibly due to the stability they offer to both the customer and the company.

2. Payment Methods and Churn

- Customers paying via **electronic checks** experience the highest churn rate of **45%**.
- Other payment methods such as **credit cards**, **bank transfers**, and **mailed checks** have lower churn rates, averaging between **15%-18%**.
- **Insight:** Issues like perceived lack of security or inconvenience with electronic checks may contribute to this trend.

3. Tenure and Churn

- Customers with **less than one year of tenure** exhibit a **50% churn rate**, the highest across all groups.
- The churn rate decreases with longer tenure:
 - **1–3 years: 35%** churn rate.
 - **More than 3 years: 15%** churn rate.
- **Insight:** Early engagement and satisfaction within the first year are critical for long-term retention.

4. Internet Service Type

- Customers using **Fiber Optic services** have a churn rate of **30%**, compared to **20%** for **DSL services**.

- **Insight:** Fiber optic users may be dissatisfied with service quality or face strong competition in the market.

5. Senior Citizens and Churn

- **Senior citizens (65+)** have a higher churn rate of **41%**, compared to **26%** among younger customers.
- **Insight:** Targeted customer service and personalized engagement may be required for this demographic.

Visualizations and Data Insights

1. Bar Charts and Line Graphs:

- Churn by payment method clearly shows a stark difference, with electronic checks leading to **three times** the churn rate compared to traditional methods.
- Tenure vs. churn rate demonstrates a steady decline in churn as tenure increases.

2. Percentage Distribution:

- **Payment Methods:** Electronic checks (**45%**), Credit Cards (**15%**).
- **Contract Types:** Month-to-month (**42%**), One-year (**11%**), Two-year (**3%**).
- **Tenure:** Less than 1 year (**50%**), More than 3 years (**15%**).

Recommendations

1. Promote Long-Term Contracts:

- Offer discounts or additional benefits for customers opting for one- or two-year contracts.
- Highlight cost savings and additional perks.

2. Enhance Payment Method Convenience:

- Address security concerns and improve ease-of-use for electronic check systems.
- Encourage customers to transition to credit card or bank transfer payments.

3. Focus on Early Engagement:

- Provide a seamless onboarding process.
- Offer personalized offers or rewards within the first year to boost satisfaction and loyalty.

4. Special Programs for Senior Citizens:

- Launch retention campaigns targeting seniors, such as dedicated support lines or exclusive offers.

5. Improve Fiber Optic Customer Satisfaction:

- Address common complaints such as speed and reliability.
- Offer competitive pricing or loyalty rewards.

Conclusion

This analysis highlights the critical factors driving customer churn in the telecommunication sector, including contract types, payment methods, customer tenure, and demographic nuances. The findings emphasize that strategic interventions can significantly mitigate churn:

1. **Retaining customers on longer contracts** provides stability for the company while offering perceived value to customers.
2. **Enhancing early engagement efforts** is pivotal, as the first year of service represents the highest risk for churn.
3. Addressing **payment-related concerns**, particularly around electronic checks, and offering more secure and convenient options can build trust and loyalty.
4. Tailoring retention programs to **senior citizens and specific service types** like Fiber Optic users ensures that diverse customer needs are met effectively.