

Analysis- Telecom customers churn dataset

This analysis examines customer churn trends in a telecom company, identifying key factors contributing to churn and providing actionable recommendations for customer retention.

KEY FINDING AND INSIGHT:

1. Overall churn Rate(%)

- The total customer churn rate is **26.54%**, meaning that over one-fourth of the customer base has left the service.
- Reducing this churn rate could significantly improve revenue and customer lifetime value.

2. Demographic & churn trends

- **Senior Citizens** have a significantly higher churn rate (**41.68%**) compared to non-senior citizens .
 - This suggests that older customers may require better service engagement or targeted retention efforts.
- **Customers tenure and churn**
 - Customers who have stayed for 1-2 months have the highest churn rate (**61.3%**).
 - In contrast, those with a tenure of 5 years or more have a much lower churn rate (**6.4%**).
 - This suggests that the first few months are critical for customer retention, requiring better onboarding and engagement.

3. Contract type and churn

- Customers on **Month-to-Month** Contracts have a churn rate of **43.5%**, which is much higher than:
 - **One-year contract** customers (**11.2%**)
 - **Two-year contract** customers (**3.9%**)
- Customers on longer contracts are significantly more likely to stay, indicating that offering incentives for longer commitments could reduce churn.

4. Service subscription and churn

- Customers who did not subscribe to certain services have a higher churn rate:
 - **Online Security (42.1%)**
 - **Online Backup (41.8%)**
 - **Tech Support (44.5%)**
- This suggests that customers using these additional services feel more engaged and find more value in their subscriptions.
- **Internet service type and churn**
 - Fiber Optic users have a much higher churn rate (**30.9%**) compared to DSL users (**19.3%**).
 - This could be due to pricing issues or service reliability concerns.

5. Billing and payment insight

- Customers who pay with **electronic checks** have the highest churn rate **(45.3%)**, compared to:
 - **Credit Card Payments (15.1%)**
 - **Bank Transfers (16.2%)**
 - This suggests that electronic check users may be more dissatisfied or have payment-related concerns.
- Customers with higher monthly charges are more likely to churn:
 - **The average monthly charge for churned customers is \$74.2**, compared to **\$61.3** for retained customers.
 - This indicates that pricing might be a significant factor in customer dissatisfaction.

Recommendations for Reducing Churn

Based on the findings, the following strategies are recommended to improve customer retention:

1. Encourage Long-Term Contracts

- Offer discounts or loyalty rewards to incentivize customers to move from **month-to-month contracts to 1-year or 2-year plans**.

2. Enhance Customer Onboarding & Engagement

- Since **61.3%** of churn happens within the first two months, improve onboarding efforts with proactive customer support, educational resources, and early engagement incentives.

3. Increase Adoption of Additional Services

- Promote services like **Online Security, Tech Support, and Backup** by offering free trials or bundling them with other plans.

4. Investigate Fiber Optic Pricing & Service Issues

- Since **Fiber Optic users** have a higher churn rate, conduct surveys or improve service quality to address concerns.

5. Optimize Billing & Payment Methods

- Address issues with **electronic check payment** users by offering alternative payment incentives or improving transparency in billing.
- Introduce discounts or value-added benefits for high-paying customers to improve satisfaction.

Conclusion:

This analysis, supported by strong data-driven insights and visualizations, highlights critical customer behavior trends. By implementing the recommendations above, the telecom company can significantly reduce churn and improve customer retention, leading to higher profitability and long-term success.