

Summary and Recommendations


Objective

The objective of this analysis is to understand customer churn patterns within a telecommunications company. The goal is to uncover key insights regarding which customer demographics, contract types, services, and payment methods are most associated with churn, thereby informing targeted retention strategies.

Key Insights


1. Contract Type and Churn

- Monthly contracts have the highest churn rate.
- Yearly and two-year contracts show significantly lower churn, indicating customers are more loyal when they are in longer-term commitments.

 Recommendation: Promote long-term contracts by offering discounts or bundled services to monthly subscribers.


2. Payment Methods and Churn

- Customers using Electronic Check are more likely to churn.
- Credit card and bank transfer users show greater loyalty.

 Recommendation: Encourage electronic check users to switch to more stable payment options via incentives or education.

3. Churn by Internet Service Type

- Customers with Fiber Optic internet have the highest churn rate.
- DSL users churn less frequently.
- Those with No Internet service show the lowest churn (possibly due to limited product engagement).

 Recommendation: Investigate service quality issues with fiber optic users; improve support or upgrade options.

4. Senior Citizens and Churn

- Senior citizens exhibit a higher churn rate compared to non-senior customers.
- Potentially due to complexity in service usage or lack of personalization.

✅ Recommendation: Develop simplified plans or offer personalized assistance to senior customers.

Visualizations & Data Insights

Bar Charts and Line Graphs

- Bar charts reveal churn trends across demographics and service types.
- Line graphs highlight churn trends over time or across payment categories.

Percentage Distribution of Churn Across Factors

Visuals show stark contrast in churn between:

- Contract types (e.g., ~43% churn for monthly vs. ~11% for two-year).
 - Internet services (Fiber Optic has ~42% churn).
 - Payment methods (Electronic check ~45% churn vs. credit card ~16%).
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✅ Final Recommendations

1. Encourage Long-Term Commitments: Discounts or perks for yearly/biannual subscriptions.
2. Improve Fiber Optic Service Quality: Address infrastructure, customer support, and speed reliability.

3. Target At-Risk Segments:

- Monthly plan holders.
- Electronic check users.
- Senior citizens

4. Personalized Retention Campaigns: Use churn risk profiling for proactive outreach.

5. Promote Auto-Pay via Card/Bank: Incentivize stable payment methods with loyalty points or discounts.