

# SUMMARY & TAKEAWAYS

## Objective:

This analysis aims to explore **customer churn patterns** in a telecom company by evaluating customer attributes, subscription services, billing preferences, and demographic factors. By identifying key factors that drive churn, this study provides **data-driven insights** to enhance customer retention strategies.

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## Key Insights & Findings

### 1. Churn Distribution Overview

- **Overall Churn Rate:** 26.5% of customers have churned, while 73.5% have remained.
- **Churn by Senior Citizen Status:**
  - 36.2% of senior citizens churned compared to only 24.1% of non-senior customers.
  - This indicates that **senior citizens are 50% more likely to churn** than younger customers.

### 2. Impact of Subscription Services on Churn

- **Internet Service & Churn:**
  - 41.3% of customers with **Fiber Optic internet** churned, compared to 19.3% of DSL users.
  - Customers with **no internet service** had the lowest churn rate at 7.4%.
  - Fiber Optic users are **2.1x more likely** to churn than DSL users.
- **Security & Tech Support Services:**
  - Customers **without Online Security** have a churn rate of 42.8%, compared to only 15.2% for those with it.
  - Similarly, customers **without Tech Support** have a 41.5% churn rate, while those with it have a 17.4% churn rate.
  - This suggests that **lack of security and tech support significantly increases churn risk**.
- **Streaming Services & Churn:**
  - Customers **with Streaming TV & Movies** have a 36.8% churn rate, higher than those without streaming services (26.9%).
  - This indicates that **streaming services alone are not strong retention factors** and may be perceived as an additional cost.

### 3. Impact of Contract & Billing Preferences

- **Churn by Contract Type:**
    - **Monthly contract customers** have the highest churn rate at **43.8%**.
    - Customers on **1-year contracts** have a churn rate of **11.2%**, and those on **2-year contracts** only **2.6%**.
    - Long-term contracts significantly reduce churn, suggesting that offering incentives for annual contracts could improve retention.
  - **Billing & Payment Methods:**
    - Customers with **electronic check payments** have the highest churn rate at **45.4%**.
    - Customers paying via **bank transfer or credit card** have a significantly lower churn rate of **16.2%**.
    - This suggests that **billing preferences may influence customer loyalty**, possibly due to perceived reliability or ease of use.
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## Conclusion & Strategic Recommendations

Based on the analysis, the following actionable strategies are recommended to **reduce churn and improve customer retention**:

1. **Encourage Long-Term Contracts:**
    - Provide discounts or loyalty rewards for **1-year and 2-year contracts** to retain more customers.
    - Consider targeted promotions for customers on **monthly contracts** (especially those at risk of churning).
  2. **Enhance Support & Security Services:**
    - Promote **Online Security & Tech Support** as part of bundled service plans.
    - Offer **free trial periods** for security services to encourage adoption.
  3. **Improve Retention Strategies for High-Risk Customers:**
    - **Target Fiber Optic users** with retention campaigns, as they have the highest churn rate.
    - Provide **personalized offers** for senior citizens, who are **50% more likely to churn**.
  4. **Optimize Billing & Payment Methods:**
    - Encourage customers to switch from **electronic check payments** to **bank transfers or credit cards**, which are associated with lower churn rates.
    - Offer incentives (e.g., discounts or cashback) for **automatic bank payments** to improve retention.
  5. **Re-Evaluate Streaming & Add-On Services:**
    - Customers with **Streaming TV & Movies** show **higher churn rates**, indicating that pricing or content offerings might need adjustments.
    - Conduct **customer satisfaction surveys** to understand why streaming subscribers are more likely to leave.
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**Final Takeaway:** This analysis provides a **data-driven roadmap** for improving **customer retention** in the telecom industry. By **targeting high-risk segments** (Fiber Optic users, seniors, monthly contract holders) and **optimizing service offerings**, the company can significantly **reduce churn rates** and **increase customer lifetime value (CLV)**.