Telecom Customer Churn Analysis – Executive Summary

Objective:

The analysis explores customer churn patterns, focusing on various factors such as payment methods, contract types, tenure, and demographic attributes. The goal is to identify which factors are most strongly associated with higher churn rates to guide customer retention strategies.

Key Insights & Findings:

● **Contract Type and Churn:**

○ Customers on **month-to-month contracts** exhibit the highest churn rate, with **42%** of such customers likely to churn.

○ In contrast, customers on **one-year** and **two-year contracts** have churn rates of **11%** and **3%**, respectively.

○ **Implication:** Longer contract periods serve as a strong retention tool, as customers with extended commitments are far less likely to leave.

● **Payment Methods and Churn:**

○ Customers paying via **electronic checks** show the highest churn rate at **45%**, while those using **credit cards, bank transfers, or mailed checks** have significantly lower churn rates, averaging around **15-18%**.

○ **Implication:** The convenience, security, and trust issues related to electronic payments might be contributing factors. Encouraging customers to switch to more stable payment methods could reduce churn.

● **Churn by Tenure:**

○ Customers with **less than one year** of tenure are the most likely to churn, with a **50%** churn rate. Those with **1-3 years of tenure** show a decreasing churn trend at **35%**, while customers who have been with the company for **more than three years** have a churn rate of just **15%**.

○ **Implication:** Engaging customers early in their journey, especially within the first year, is critical for retention.

● **Churn by Internet Service Type:**

○ Customers using **Fiber Optic** services show a higher churn rate of **30%**,

compared to **DSL customers** with a churn rate of **20%**.

○ **Implication:** This could be due to increased competition or dissatisfaction with service quality. Understanding customer satisfaction with service speed and reliability may help retain fiber optic users.

● **Senior Citizens and Churn:**

○ The analysis reveals that **senior citizens** (aged 65+) have a churn rate of **41%**, compared to a **26%** churn rate among non-senior citizens.

○ **Implication:** Special retention programs and targeted customer service for senior customers may help reduce churn in this demographic.

Visualizations & Data Insights:

● **Bar Charts and Line Graphs:**

○ The visual representation of churn by **payment method** clearly shows that customers using electronic checks churn almost three times as much as those using more traditional or secure methods like credit cards.

○ **Customer tenure** vs. churn rate visualizations reveal a clear declining trend in churn as customers' tenure increases, underscoring the need for early-stage customer loyalty programs.

● **Percentage Distribution of Churn Across Factors:**

○ **Payment Methods:** 45% churn for electronic check users, 15% for credit card users.

○ **Contract Types:** 42% churn for month-to-month contracts, 11% for yearly contracts, 3% for two-year contracts.

○ **Tenure:** 50% churn in the first year, dropping to 15% after three years.

Recommendations:

● **Promote Long-Term Contracts:** Offer incentives for customers to commit to longer contracts to reduce churn.

● **Address Payment Method Concerns:** Implement campaigns encouraging customers to switch from electronic checks to more reliable payment methods.

● **Customer Engagement in Early Tenure:** Focus on improving the customer experience within the first year, as churn is highest in this period.

● **Special Senior Citizen Retention Programs:** Create personalized offers or assistance programs to retain the senior demographic.