**Summary of Customer Churn Data Analysis**

This analysis explores customer churn behavior in a telecom company using visualizations and data insights. The primary objective is to identify which factors most influence a customer’s likelihood to churn and to develop actionable insights for customer retention.

**Key Insights:**

**1. Churn Rate Overview**

* **26.54%** of the total customers have churned.
* This is a significant portion, indicating a need for focused customer retention strategies.

**2. Senior Citizen Impact**

* A higher percentage of senior citizens tend to churn compared to non-senior citizens.
* Visualization shows churn among seniors is notably higher (~42%) vs non-seniors (~24%).

**3. Tenure Effect**

* Most churn occurs within the **first few months** of service.
* Long-tenured customers are significantly more loyal.

**4. Contract Type Influence**

* Customers with **month-to-month contracts** have a much higher churn rate than those on **1-year or 2-year contracts**.
* Lock-in periods like annual contracts correlate with reduced churn.

**5. Internet Service & Add-ons**

* Users with **fiber optic internet** churn more than DSL or non-internet users.
* Lack of services like **OnlineSecurity**, **TechSupport**, and **DeviceProtection** are associated with higher churn rates.

**6. Streaming and Support Services**

* Customers not subscribed to services such as **StreamingTV** or **TechSupport** show a higher churn tendency.
* Providing value-added services may reduce churn.

**Brief Analytical Summary :**

| **Factor** | **Observation** |
| --- | --- |
| **Churn Rate** | 26.54% of all customers have churned. |
| **Senior Citizens** | Churn rate is approx. **42%** for seniors vs **24%** for non-seniors. |
| **Tenure** | Churn is highest among customers with **tenure ≤ 2 months**. |
| **Contract Type** | **Month-to-month** users churn far more than **1- or 2-year** contract users. |
| **Internet Type** | **Fiber optic** customers show higher churn. |
| **Online Services** | Absence of **OnlineSecurity**, **OnlineBackup**, **TechSupport**, etc. increases churn. |
| **Streaming Services** | Lack of **StreamingTV** or **StreamingMovies** leads to higher churn. |