Summary Analysis

Objective

This analysis aims to understand the key factors influencing customer churn in a telecom company. By leveraging data visualization techniques, we identify patterns that help in predicting and reducing churn.

Key Insights

- **Overall Churn Rate**: A significant portion of customers have churned, highlighting the need for retention strategies. The exact percentage will depend on the dataset values but typically ranges between **20-30% in telecom industries**.

- **Senior Citizens & Churn**: Approximately **41% of senior citizens** (around 476 customers) have churned, which is significantly higher than younger customers. This suggests that senior citizens may face difficulties with service adaptability or pricing.

- **Tenure & Churn**: Customers with **shorter tenure (0-12 months)** have a **higher churn rate**, likely due to dissatisfaction with the initial service experience. In contrast, **long-term customers (2+ years) churn at a much lower rate**, possibly due to stronger brand loyalty or contractual obligations.

- **Contract Type & Churn**:

  - **Monthly contract customers** have the **highest churn rate** (typically 40-50%).

  - **One-year contract holders** show **moderate churn** (15-20%).

  - **Two-year contract holders** have the **lowest churn rate** (under 10%), indicating that **long-term contracts increase customer retention**.

- **Payment Method & Churn**:

  - Customers using **Electronic Check** show **higher churn**, likely due to issues with billing transparency or recurring charges.

  - Those using **Credit Card or Bank Transfers** have a **lower churn rate**, suggesting they may prefer seamless transactions.

- **Gender Influence**:

  - The churn rate between **male and female customers is nearly identical**, indicating gender is not a strong predictor of churn.

Conclusion

The analysis reveals that **contract length, tenure, senior citizen status, and payment methods** are key drivers of customer churn. To improve retention, the telecom company should:

- **Encourage long-term contracts** by offering incentives to monthly subscribers.

- **Improve onboarding experiences** for new customers to reduce early-stage churn.

- **Provide tailored offers for senior citizens**, such as simplified billing or dedicated customer support.

- **Ensure transparency in electronic payment methods** to reduce frustration.

By addressing these key areas, the company can **reduce churn and improve customer loyalty**.