Summary and Recommendations

The analysis examines **customer churn patterns**, highlighting key factors that contribute to customer retention and attrition. By leveraging visualizations and statistical insights, we identify critical trends that impact business performance.

Key Findings

1. Overall Churn Rate

- 26.54% of total customers have churned, while 73.46% have remained with the company.
- This indicates that nearly one in four customers is leaving, signaling a need for proactive retention strategies.

2. Impact of Customer Demographics

- Senior Citizens are more likely to churn compared to younger customers.
- The churn rate for **senior citizens** is **higher than the overall average**, highlighting a possible gap in service expectations or customer support for this group.

3. Tenure Analysis: Loyalty vs. Early Churn

- Customers with short tenures (1-2 months) show the highest churn rate.
- Conversely, long-term customers (more than 24 months) exhibit significantly lower churn rates, indicating that once customers cross an initial threshold, they are more likely to stay.
- This suggests that early engagement strategies can be key in reducing churn among new customers.

4. Contract Type and Its Influence on Churn

- Month-to-month contract customers have the highest churn rate (~45%).
- In contrast, customers with 1-year contracts have a churn rate of approximately 11%, and those with 2-year contracts show the lowest churn rate (~3%).
- These numbers strongly suggest that long-term contracts significantly reduce churn, likely due to the commitment and potential discounts associated with these plans.

5. Influence of Additional Services on Churn

- Customers subscribing to additional services (Online Security, Tech Support, and Streaming TV) tend to have lower churn rates.
- Specifically, churn rates are:
 - Online Security Subscribers: ~15% churn
 - Tech Support Subscribers: ~16% churn
 - Streaming Services Users: ~19% churn

- On the other hand, customers relying solely on Fiber Optic Internet have a churn rate of around 30%, which is significantly higher than those who bundle additional services.
- This indicates that bundled service offerings create a stronger customer attachment.

Recommendations for Churn Reduction

1. Encourage Long-Term Contracts

- Offer attractive incentives (discounts, loyalty rewards) for customers to switch from month-to-month to 1- or 2-year contracts.
- Highlight the benefits of commitment in marketing strategies.

2. Implement Proactive Engagement for New Customers

- Develop an **onboarding program** to engage customers during their first **1-3 months**, reducing early churn rates.
- Offer personalized discounts or free service trials during this critical period.

3. Address Senior Citizen Churn

- Tailor services specifically for senior citizens, such as simplified plans, better customer support, and personalized assistance.
- Provide additional training or customer education on how to use bundled services efficiently.

4. Promote Service Bundling

- Customers with Online Security and Tech Support have significantly lower churn; hence, promote these services as a value-added bundle.
- Design attractive service packages that encourage customers to subscribe to multiple services.

By addressing these factors, the company can take **data-driven actions** to minimize churn and improve **customer retention**, **satisfaction**, **and overall business profitability**.