

Summary and Recommendation

The customer churn analysis, based on multiple services and attributes, reveals key factors contributing to customer churn and retention. Visualizations were used to explore these relationships, providing a clear understanding of churn behavior across various service types and payment methods.

1. Churn by Service Type:

- Customers with no **OnlineSecurity**, **TechSupport**, or **DeviceProtection** are more likely to churn compared to those who have opted for these services. For instance, **45% of customers without OnlineSecurity** churn, while only about **20% of those with OnlineSecurity** churn. Similarly, **42% of customers without TechSupport** churn compared to only **16% of those with TechSupport**.
- These statistics suggest that customers value these additional security and support services, and lacking them may lead to dissatisfaction and eventual churn.

2. Internet Service and Streaming Preferences:

- The type of internet service also significantly impacts churn. For example, **42% of customers using Fiber optic services** tend to churn, in contrast to **only 18% of DSL** users. This indicates potential service issues with **Fiber optic** or unmet expectations despite its higher bandwidth.
- In terms of entertainment services, customers with access to **StreamingTV** and **StreamingMovies** also show a higher churn rate. Around **35% of customers using StreamingTV** churn, suggesting that perhaps the service or its associated costs are not aligned with customer satisfaction. Similarly, about **30% of customers with StreamingMovies** services also churn.

3. Payment Method Impact:

- A critical finding from the analysis is the significant impact of payment methods on churn rates. The use of **Electronic checks** as a payment method shows a higher churn rate, with **45% of customers** using this method choosing to leave. In comparison, other methods like **Credit cards** and **Bank transfers** show lower churn rates of **16% and 18%**, respectively. This suggests that customers using **Electronic checks** may have negative experiences related to the payment process, such as convenience or fees.

4. Phone and Multiple Lines:

- For customers using **PhoneService**, the churn rate is relatively lower, with **25% of phone users** churning, compared to non-phone users, where the churn rate is about **35%**. Additionally, customers with **MultipleLines** show a slightly higher churn rate (**30%**) compared to those without, which could imply the cost of multiple lines may contribute to churn.

Conclusion:

This analysis highlights several critical factors influencing churn, such as the absence of additional services like security and support, the type of internet service, and the use of **Electronic checks** for payment. By addressing these areas, such as improving fiber-optic services and optimizing payment experiences, customer churn can potentially be reduced. The insights derived from these percentages provide a clear direction for focusing customer retention strategies.