

# Churn Analysis of a Telcom Company

Here is the key:

## **1. Churn Rate:**

Approximately 26.54% of customers have churned, while 73.46% are retained.

## **2. Customer Tenure:**

Customers with short tenures (1-2 months) are more likely to churn.

Customers with longer tenures tend to stay with the service.

## **3. Contract Type:**

Month-to-month contracts have the highest churn rate compared to 1- or 2-year contracts, indicating that long-term contracts reduce churn.

## **4. Senior Citizens:**

A higher percentage of senior citizens have churned compared to non-senior citizens.

## **5. Payment Method:**

Customers using electronic check are more likely to churn, suggesting dissatisfaction with this payment method.

## **6. Service Usage:**

Services such as Online Security and Tech Support seem to impact churn rates; customers without these services tend to churn more.

## **7. Gender:**

There is no significant difference in churn rates between genders.

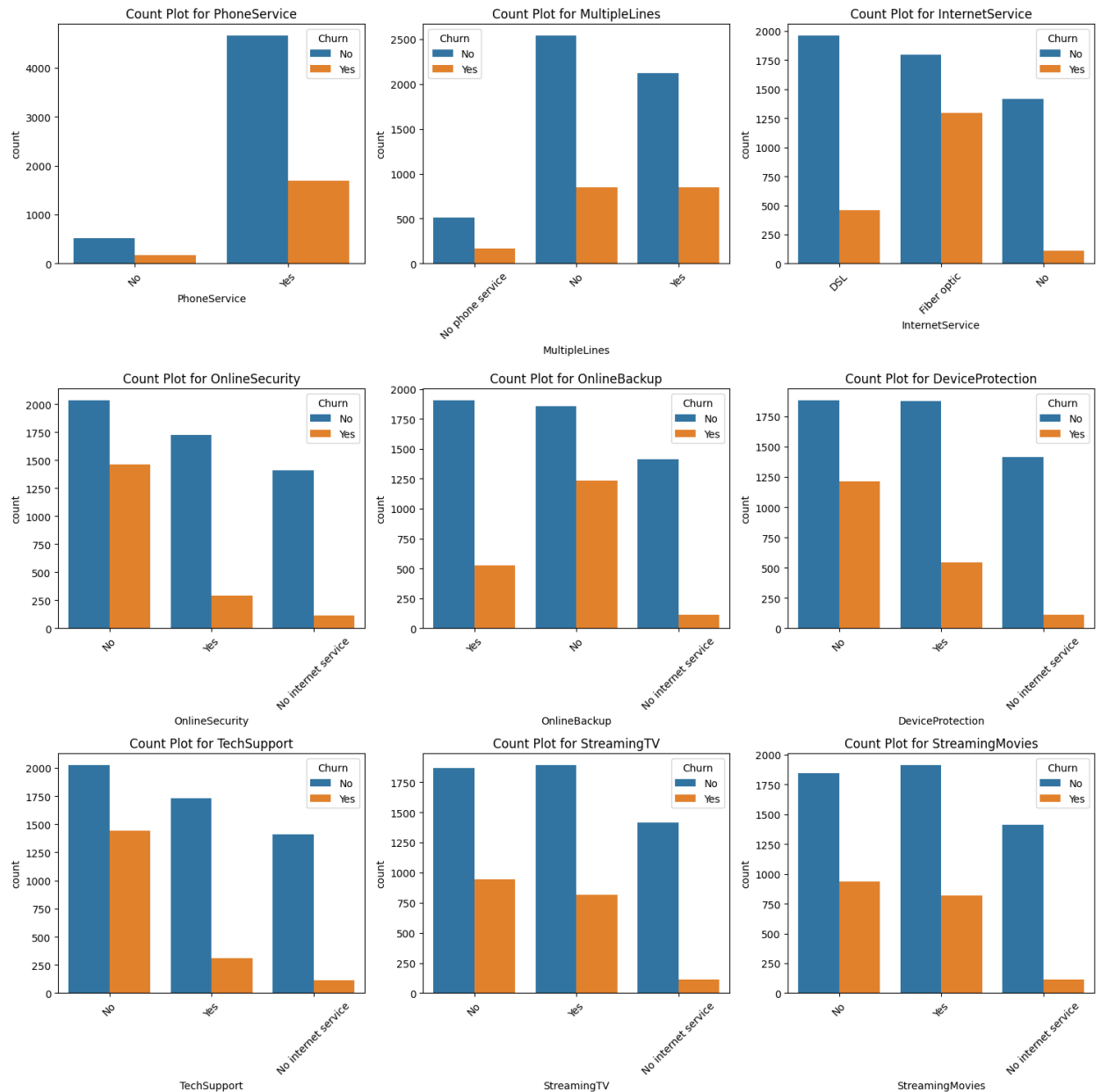
## **8. Churn Trends by Services:**

The visualizations for various services (e.g., Streaming TV, Device Protection, Internet Service) highlight how different service types contribute to churn, providing actionable insights into product improvements.

These insights can help guide strategies for customer retention, such as incentivizing long-term contracts, improving electronic payment experiences, and targeting senior citizens with tailored retention offers.

|                     | <i>Senior Citizen</i> | <i>tenure</i> | <i>Monthly Charges</i> | <i>Total Charges</i> |
|---------------------|-----------------------|---------------|------------------------|----------------------|
| <b><i>count</i></b> | 7043.000000           | 7043.000000   | 7043.000000            | 7043.000000          |
| <b><i>mean</i></b>  | 0.162147              | 32.371149     | 64.761692              | 2279.734304          |
| <b><i>std</i></b>   | 0.368612              | 24.559481     | 30.090047              | 2266.794470          |
| <b><i>min</i></b>   | 0.000000              | 0.000000      | 18.250000              | 0.000000             |
| <b><i>25%</i></b>   | 0.000000              | 9.000000      | 35.500000              | 398.550000           |
| <b><i>50%</i></b>   | 0.000000              | 29.000000     | 70.350000              | 1394.550000          |
| <b><i>75%</i></b>   | 0.000000              | 55.000000     | 89.850000              | 3786.600000          |
| <b><i>max</i></b>   | 1.000000              | 72.000000     | 118.750000             | 8684.800000          |

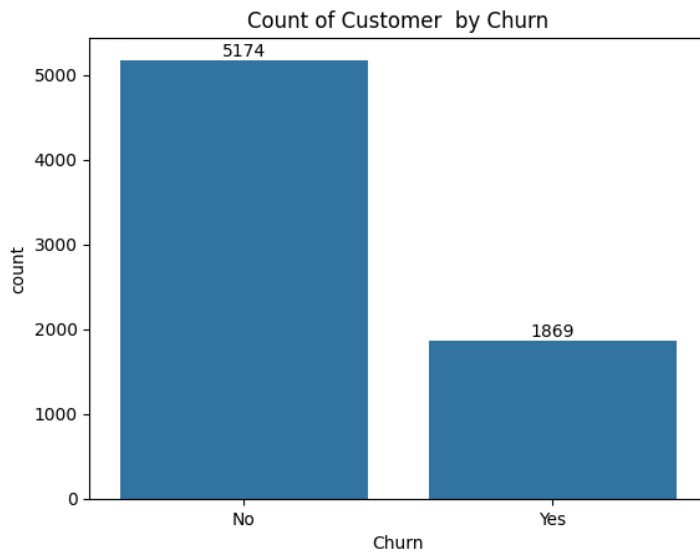
Above table is based on some aggregation on the give data.



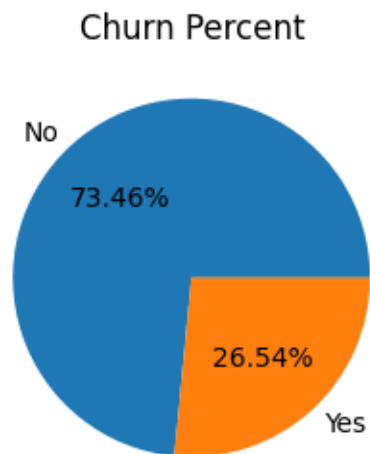
The subplot grid created using Seaborn visualizes the count distribution of various services (such as Phone Service, Multiple Lines, Internet Service, and others) in your dataset.

Each subplot shows the number of instances for each category within a service, giving you a clear overview of your data's composition.

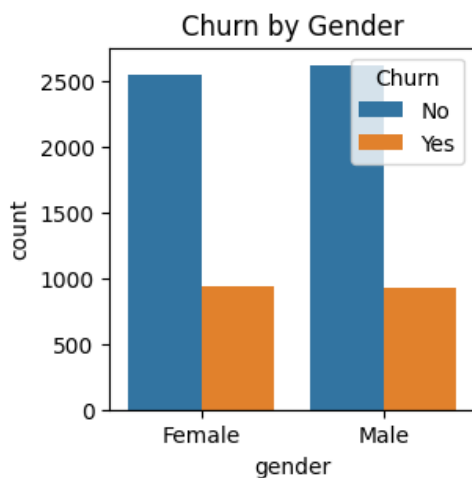
This layout helps in quickly comparing different features side-by-side.



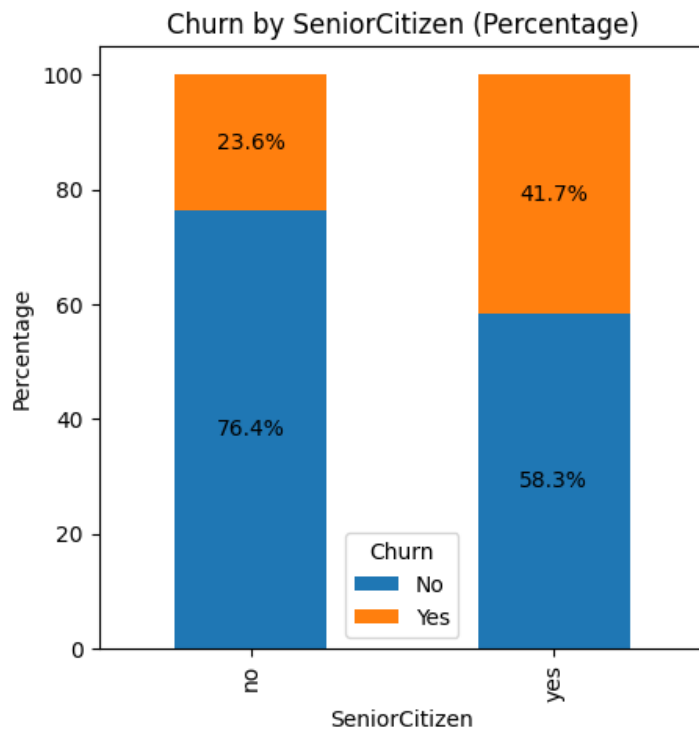
This bar graph explains the number of churn.



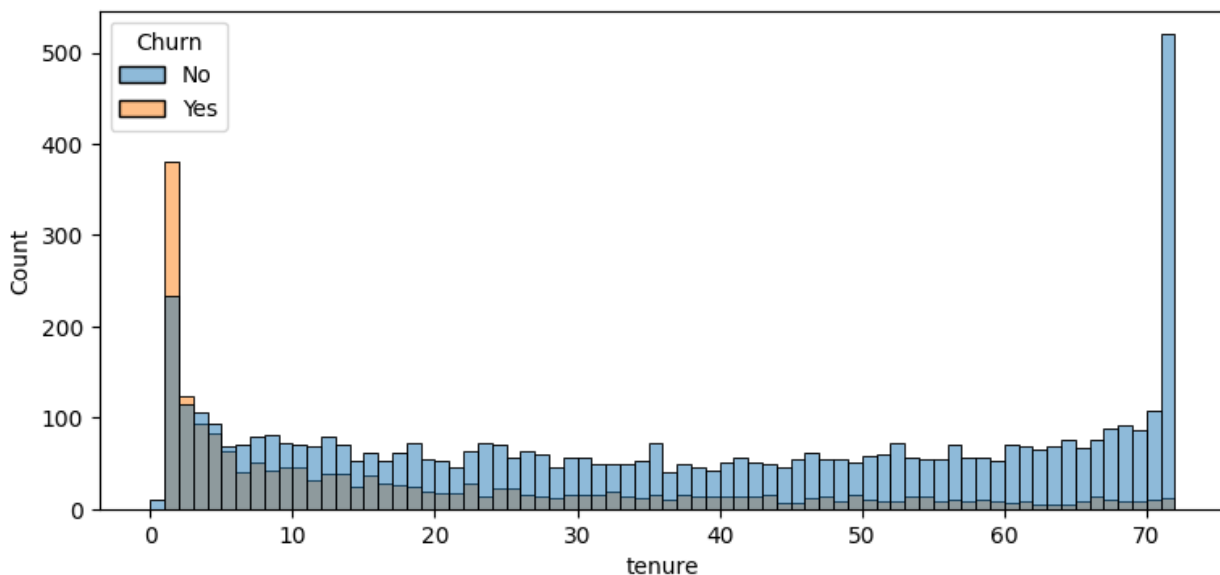
This pie chart concludes that 26.54% customers has left.



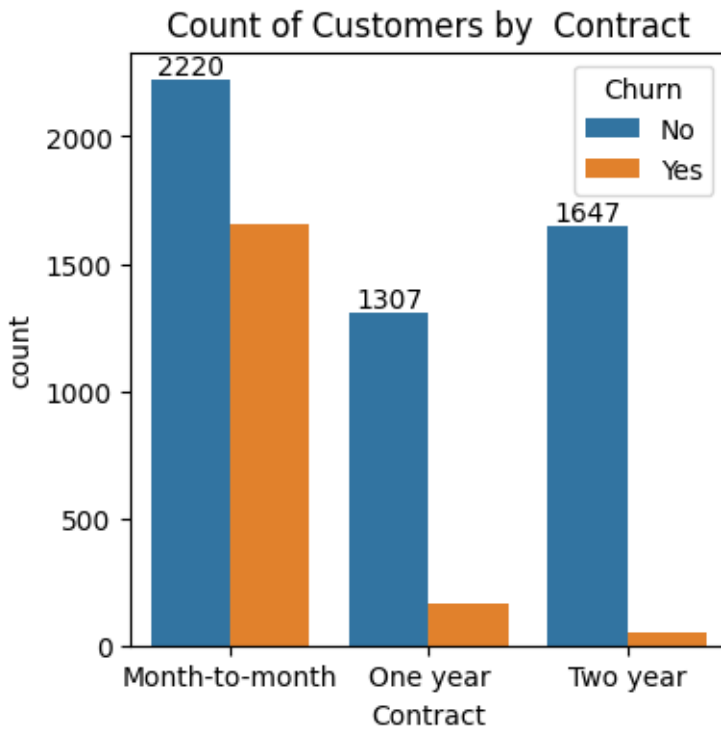
This bar graph explains the number of churn on the basis of gender.



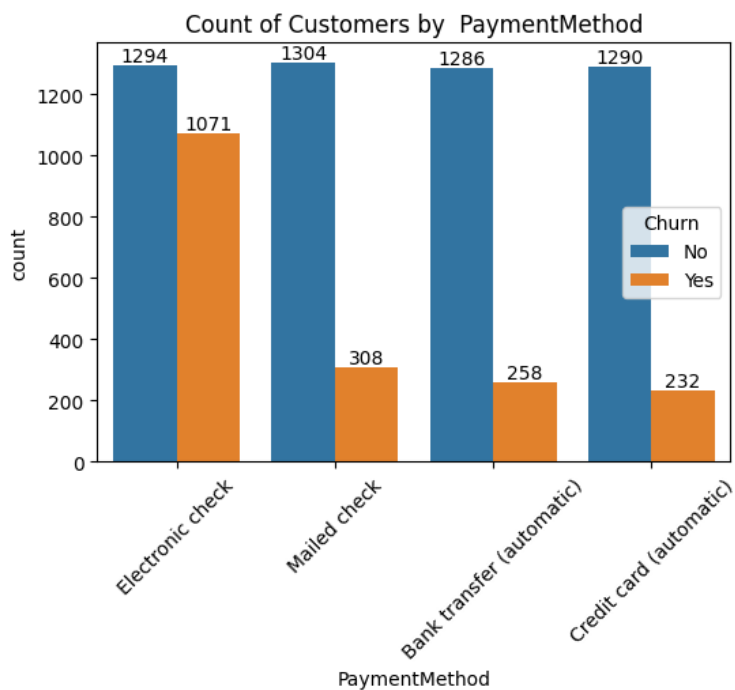
Comparative a greater percent of people in senior citizen category have Churned.



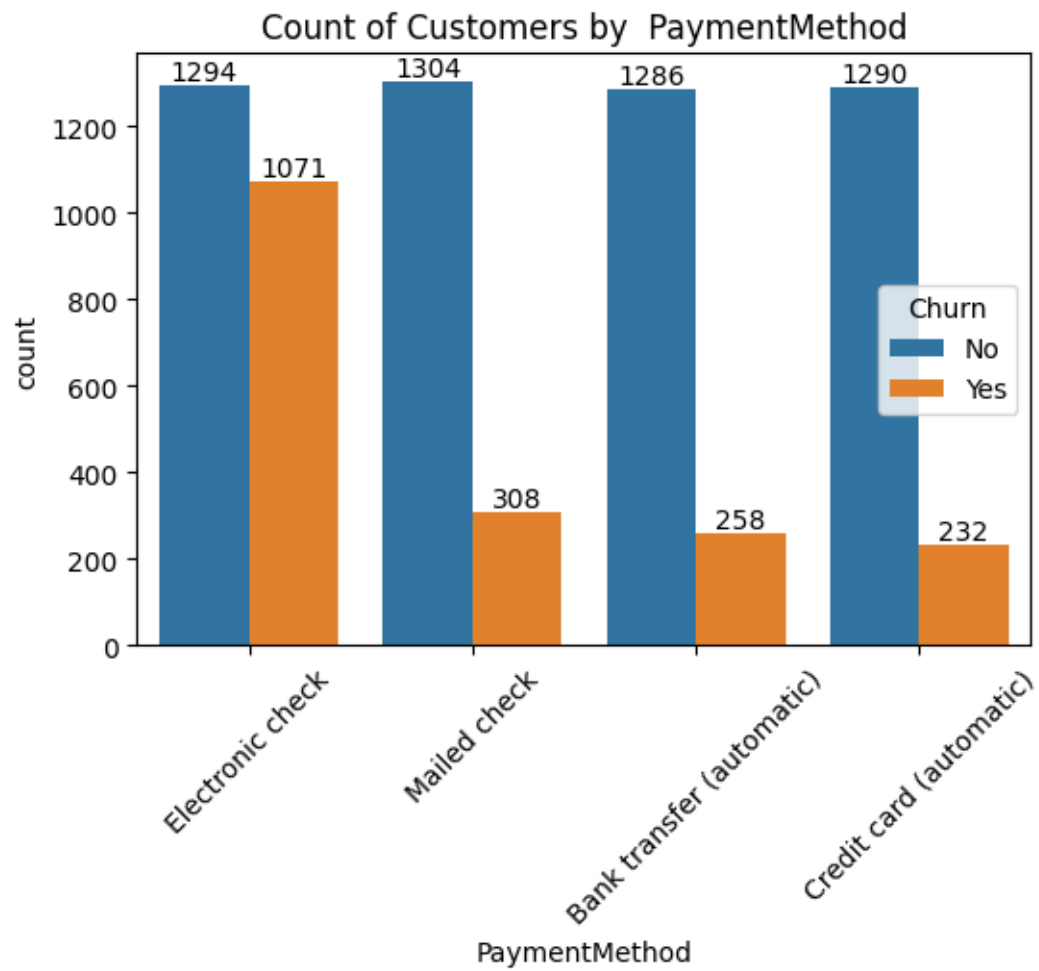
People who have used services for a long time stayed and people who have used services #1or 2 months have churned.



People who have month to month contract are likely to churn then from those who have 1 or 2 year contract.



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