

Telecom Customer Churn Analysis

1. **Overall Churn Rate:** Approximately 26.54% of customers in this dataset have churned.
2. **Churn by Gender:** Gender does not appear to be a significant factor in customer churn, with similar churn rates for both males and females.
3. **Churn by Senior Citizen Status:** Senior citizens have a considerably higher churn rate (41.7%) compared to non-senior citizens (23.6%).
4. **Churn by Tenure:** Customers with shorter tenures (especially those using the service for only 1-2 months) are more likely to churn. Customers who have been with the service for a longer period are more likely to stay.
5. **Churn by Contract Type:** Customers with month-to-month contracts have a much higher churn rate than those with one-year or two-year contracts. This suggests that longer-term contracts contribute to customer retention.
6. **Churn by Internet Service and Add-on Services:**
 - Customers with Fiber optic internet service have a higher churn rate than those with DSL or no internet service.
 - The absence of add-on services like Online Security, Online Backup, Device Protection, and Tech Support is associated with higher churn rates. Customers with these services tend to churn less.
 - Customers with no internet service generally have lower churn rates.
7. **Churn by Payment Method:** Customers using Electronic Check as a payment method are more likely to churn compared to those using Mailed Check, Bank Transfer (automatic), or Credit Card (automatic).

In summary, customers who are senior citizens, have month-to-month contracts, use Fiber optic internet, lack protective add-on services, have shorter tenures, and use electronic checks for payment are more likely to churn.