

## Customer Churn Analysis

This analysis provides key insights into customer churn behavior, highlighting critical factors influencing retention and churn rates.

### Key Findings:

1. **Overall Churn Rate:**
  - 26.54% of customers have churned.
  - A bar chart confirms that 5,174 customers stayed, while 1,869 left.
2. **Demographic Insights:**
  - **Gender:** No significant difference in churn rates between males and females.
  - **Senior Citizens:** Higher churn rates among senior citizens, suggesting a need for targeted retention strategies.
3. **Subscription & Service Analysis:**
  - **Contract Type:** Month-to-month contract users are more likely to churn, while annual contract holders show higher retention.
  - **Tenure Impact:** Customers with tenures below 10 months are at a higher risk of leaving. Efforts should focus on early engagement.
4. **Billing & Payment Trends:**
  - **Payment Method:** Customers using electronic checks have the highest churn rates. Encouraging automatic payment options (bank transfers, credit cards) can improve retention.
5. **Internet & Service Influence:**
  - **Internet Type:** Fiber Optic customers have higher churn compared to DSL or no internet users. Service improvements could help reduce this trend.
  - **Tech Support Impact:** Customers without tech support have a higher churn rate. Providing quality support can enhance customer satisfaction and loyalty.

### Recommendations:

- Encourage **long-term contracts** to reduce churn.
- Focus on **early customer engagement** to improve retention within the first 10 months.
- Promote **automatic payment methods** to minimize churn from electronic check users.
- Enhance **Fiber Optic service quality** to retain internet customers.
- Strengthen **tech support services** to improve overall customer satisfaction.