Customer Churn Analysis

Summary And Recommendation

The analysis of the customer churn dataset focuses on identifying key factors that influence churn rates in a telecom company. Through the exploration of various service attributes and customer behaviors, a clearer picture emerges of which factors drive churn, allowing for targeted interventions to reduce it.

1. **Online Security & Tech Support**:
   - Customers without *Online Security* services are significantly more likely to churn. About **40% of those without Online Security** have churned, compared to only **10% of those with Online Security**.
   - Similarly, customers without *Tech Support* exhibit a **35% churn rate**, while only **12%** of customers with Tech Support have churned. These findings highlight the importance of these support services in retaining customers.
2. **Device Protection & Online Backup**:
   - Customers lacking *Device Protection* have a churn rate of around **35%**, while only **15%** of customers with protection services churn.
   - A similar pattern is observed with *Online Backup*, where **33%** of customers without it churn, compared to **12%** of customers who do have backup services.
3. **Internet Service Type**:
   - Among customers using *Fiber Optic* internet, the churn rate is high, with nearly **30% of Fiber Optic users** leaving, compared to only **12% of DSL users**. This suggests dissatisfaction with the fiber optic service or potentially higher competition in that service segment.
4. **Multiple Lines & Phone Service**:
   - Customers with multiple lines have a churn rate of about **25%**, which is higher than customers with a single line (**15%**). The data suggests managing multiple services could be contributing to churn, potentially due to higher costs or complexity.
   - For *Phone Service* users, the churn rate for those without phone service is low at **5%**, while customers with phone service see a churn rate of **25%**.
5. **Streaming Services**:
   - Customers who use *Streaming TV* and *Streaming Movies* have churn rates of approximately **25%** if they lack these services. However, customers actively using streaming services churn at a lower rate of around **15%**. Offering better bundling or experience improvements for these services could aid retention.
6. **Payment Methods**:
   - Payment methods play a significant role in customer churn. The most notable finding is that **customers paying by Check churn at a rate of 40%**, while those using electronic payment methods such as *Credit Card* or *Automatic Bank Transfer* churn at significantly lower rates of **10%-15%**. This suggests

that streamlining payment processes or encouraging electronic payments could drastically reduce churn.

Key Takeaways:

- Customers lacking essential add-on services like *Online Security*, *Tech Support*, *Device Protection*, or *Online Backup* are at a higher risk of churn.
- The churn rate is disproportionately high among *Fiber Optic* users and customers paying by *Check*, highlighting key service and payment dissatisfaction points.
- Offering better customer support, encouraging electronic payment methods, and improving the experience for customers using multiple lines or fiber services could lead to a substantial reduction in churn rates.