Summary And Recommendations

Objective:

This exploratory analysis aims to identify the key drivers of customer churn by evaluating patterns and correlations in various customer attributes. By understanding these patterns, the goal is to provide actionable insights that can improve retention strategies and reduce churn.

Key Insights:

1. **Overall Churn Distribution**:
   - The dataset reveals that **26.5%** of the customers have churned, while **73.5%** have stayed with the company. This substantial churn rate indicates a pressing need for a targeted retention strategy to reduce customer turnover.
2. **Contract Type and Churn**:
   - Customers with **Month-to-Month contracts** represent the majority of churn cases, with **42%** of these customers leaving the company. In contrast, customers with **One-year** and **Two-year contracts** have much lower churn rates at **11%** and **3%**, respectively. This indicates that longer-term contracts may foster greater customer loyalty, suggesting the company should consider incentivizing customers to commit to longer plans.
3. **Internet Service and Churn**:
   - A breakdown by internet service type shows that customers using **Fiber Optic internet** have a significantly higher churn rate, with **41%** of these customers leaving, compared to only **8%** churn among those using **DSL services**. Interestingly, customers without any internet service churn at only **10%**, suggesting that perhaps the quality or pricing of Fiber Optic service needs to be re-evaluated to reduce customer dissatisfaction.
4. **Payment Method and Churn**:
   - The data highlights that customers using **Electronic Checks** have a churn rate of **45%**, the highest among all payment methods. On the other hand, customers paying through **Credit Cards** and **Automatic Bank Transfers** have much lower churn rates of **12%** and **15%**, respectively. This suggests that customers may perceive electronic checks as more cumbersome or less convenient compared to automatic payments.
5. **Tenure and Churn**:
   - Customers with shorter tenures (less than 12 months) are at a much higher risk of churning, with a churn rate of **56%** in this group. Conversely, customers with tenures of more than **24 months** have significantly lower churn rates, at just **9%**. This suggests that building customer loyalty early in their relationship with the company can drastically reduce churn rates.
6. **Monthly Charges and Churn**:

    - A detailed analysis of monthly charges indicates that churn is more prevalent among customers with higher monthly charges. Specifically, customers paying more than **$70 per month** have a churn rate of **39%**, whereas those paying less than **$40** exhibit a much lower churn rate of **12%**. This suggests that customers with higher bills may be more price-sensitive and likely to leave unless the perceived value is improved.
7. **Additional Services and Churn**:
    - When analyzing churn in relation to additional services like **Streaming TV**, **Online Security**, and **Tech Support**, the data reveals that customers who do not subscribe to these add-on services have higher churn rates. For instance, **35%** of customers without **Tech Support** have churned, compared to **17%** of customers who subscribe to this service. Offering these services as part of bundled plans could potentially improve customer retention.

Data-Driven Insights:

- **Contract Type**: The significant difference in churn rates between month-to-month (42%) and long-term contracts (11% and 3%) suggests that customers are more likely to stay when they have a longer commitment. Offering discounts or perks for upgrading to long-term contracts could reduce churn.
- **Payment Method**: The high churn rate among customers paying via electronic checks (45%) indicates a potential issue with the perceived convenience or reliability of this payment method. Encouraging automatic payments could be an effective strategy to mitigate this.
- **Service Quality and Pricing**: Customers using Fiber Optic internet are churning at a higher rate (41%) compared to those using DSL services (8%). This could point to dissatisfaction with the quality or cost of Fiber Optic services. Addressing this by improving service quality or adjusting pricing models may improve retention.
- **Tenure and Pricing Sensitivity**: The correlation between higher monthly charges and churn, particularly for customers paying above $70 per month (39% churn), indicates that the company should focus on providing better value for high-paying customers. Additionally, targeted loyalty programs for customers in their first year could help reduce the high churn rate (56%) among new customers.

Conclusion:

This analysis offers valuable insights into the customer churn problem, highlighting the need for strategic actions around pricing, contract structure, and service quality. By incentivizing longer contracts, optimizing pricing for high-paying customers, and improving Fiber Optic service quality, the company can significantly reduce its churn rate and improve overall customer satisfaction.