Executive Summary: Customer Churn Analysis

Objective:

This analysis aims to understand customer churn trends and identify key factors contributing to customer attrition. By leveraging exploratory data analysis and visualizations, we can develop actionable strategies to enhance customer retention.

Key Findings & Insights

1 Overall Churn Rate

- The dataset reveals that **approximately 26.5% of customers have churned**, indicating a significant customer loss.
- This underscores the importance of retention strategies to improve customer loyalty and reduce revenue leakage.

2 Churn by Senior Citizens

- Yes (Senior Citizen) Churn Rate: ~42%
- No (Non-Senior Citizen) Churn Rate: ~24%
- Senior citizens churn at nearly 1.75x the rate of non-senior customers. This suggests
 that elderly customers may face challenges in service usability, pricing, or engagement
 with digital services.
- **Recommendation:** Introduce senior-friendly plans, better support for older customers, and loyalty discounts to retain this high-risk group.

Impact of Services on Churn

Phone & Internet Services

- Customers without PhoneService or with MultipleLines show slightly higher churn rates.
- Churn by InternetService Type:

○ **DSL:** ~19%

Fiber Optic: 42% (highest churn)

○ No Internet: ~7%

- **Interpretation:** Fiber Optic customers churn the most, likely due to service dissatisfaction, competition, or pricing.
- **Recommendation:** Improve Fiber Optic service quality and pricing to enhance customer satisfaction.

Online Security & Tech Support

- Churn Rate for Customers Without Online Security: ~46%
- Churn Rate for Customers Without Tech Support: ~47%
- Churn Rate for Customers With These Services: ~15%
- Interpretation: Customers without Online Security or Tech Support churn nearly 3x more.
 - Recommendation: Offer bundled security and tech support features to increase retention.

Streaming Services (TV & Movies)

- Customers without StreamingTV or StreamingMovies churn at a lower rate (~22%) compared to those who have them (~30%).
- This suggests that streaming services alone **don't significantly influence churn**, but they may be seen as an additional cost rather than a necessity.
- **Recommendation:** Introduce **discounted streaming bundles** for long-term customers to enhance perceived value.

4 Financial Insights: Total Charges & Churn

- Customers with lower TotalCharges churn more than high-paying customers.
- Average TotalCharges for Churned Customers: ~\$1,600
- Average TotalCharges for Retained Customers: ~\$2,300
- Newer customers (low TotalCharges) are more likely to churn.
- Interpretation: New customers may not see the value in the service or face onboarding challenges.
- Recommendation: Implement welcome offers, onboarding assistance, and early engagement strategies to retain new customers.

Key Recommendations for Reducing Churn

1 Target High-Risk Segments:

• Focus on senior citizens & new customers with tailored retention plans.

2 Improve Fiber Optic Services:

• Address service quality issues to lower 42% churn rate.

Bundle Online Security & Tech Support:

• Customers without these services **churn 3x more**—upsell them.

4 Enhance Customer Engagement for New Users:

Improve onboarding and offer initial discounts to reduce early churn.

5 Offer Discounted Streaming Packages:

• Encourage long-term contracts with bundled deals to increase perceived value.

Final Takeaway:

By implementing these strategies, the company can reduce churn rates, increase customer satisfaction, and enhance long-term revenue stability.