Comprehensive Customer Churn Analysis Report

➢ Objective:

The primary objective of this analysis is to investigate the factors influencing customer churn, with a particular focus on payment methods and contract types. Understanding these factors is critical for developing effective customer retention strategies.

➢ Key Insights & Findings:

1. **Contract Type and Churn:**

   - Churn Rate: Customers on month-to-month contracts exhibit a 42% churn rate, significantly higher than the 11% for annual contracts and only 3% for bi-annual contracts.

   - Implication: Encouraging customers to commit to longer contract durations may enhance retention rates.

2. **Payment Methods and Churn:**

   - Churn Rate: Customers using electronic checks demonstrate the highest churn rate at 45%, compared to 15-18% for those using credit cards or bank transfers.

   - Implication: The convenience and trust issues surrounding electronic check payments may lead to dissatisfaction. Promoting more reliable payment options could mitigate churn.

3. **Churn by Tenure:**

   - Churn Rate: Customers with a tenure of less than one year have a 50% churn rate, while those with 1-3 years show a 35% churn rate. Long-term customers (over three years) have a churn rate of just 15%.

   - Implication: Initial customer engagement strategies are crucial, especially for new customers.

4. **Churn by Internet Service Type:**

   - Customers using fiber optic services show a churn rate of 30%, compared to 20% for those with DSL.

   - Implication: Addressing service quality and competition concerns for fiber optic users could help improve retention.

5. **Senior Citizens and Churn:**

   - Senior citizens (aged 65+) experience a 41% churn rate, in contrast to 26% for non-senior citizens.

   - Implication: Tailored retention programs for senior customers may effectively reduce churn in this demographic.

➢ **Visualizations & Data Insights:**

- **Bar Charts and Line Graphs**: Visualizations illustrate disparities in churn rates across contract types and payment methods. Trends indicate a declining churn rate as customer tenure increases.

- **Percentage Distribution**: Key percentages highlight critical areas for focus:

  - **Payment Methods**: 45% churn for electronic check users vs. 15% for credit card users.

  - **Contract Types**: 42% churn for month-to-month contracts vs. 3% for two-year contracts.

  - **Tenure**: 50% churn in the first year, decreasing to 15% after three years.

➢ **Recommendations:**

1. Promote Long-Term Contracts: Offer incentives for customers to switch to longer contract commitments to reduce churn rates.

2. Address Payment Method Concerns: Implement marketing campaigns encouraging customers to switch from electronic checks to more stable payment methods.

3. Enhance Early Customer Engagement: Focus on improving the customer experience during the first year to reduce churn among new customers.

4. Develop Senior Citizen Retention Programs: Create targeted offers and support systems for senior customers to enhance their satisfaction and loyalty.

➢ **Churn Rate Insights:**

- The overall churn rate is 26.54%, with a notable increase among senior citizens and customers with short tenure.

- Tenure Analysis: Customers with less than one year of service are significantly more likely to churn, emphasizing the importance of early retention efforts.

➢ Payment Method Impact:

- Electronic Check Users: This group has the highest churn rate, indicating potential dissatisfaction or trust issues.

- Automatic Payment Methods: Users of automatic bank transfers and credit cards show much lower churn rates, suggesting these methods enhance retention.

➢ Visual Analysis:

- Boxplots for Numerical Features:

  - Tenure: No significant outliers; indicates a bimodal distribution with most customers either having very short or long tenures.

  - Monthly Charges: Higher monthly charges correlate with increased churn, highlighting the need for personalized engagement with higher-paying customers.

  - Total Charges: Shows more variability, indicating potential outliers, particularly among long-term customers.

➢ Service Analysis:

- Customers with multiple services (e.g., fiber optic, streaming) tend to churn at higher rates compared to those using basic services.

- Lack of supplementary services such as online security and tech support correlates with higher churn rates.

➢ Payment Method Breakdown:

- Bank Transfer (Automatic): Low churn rates (258 churned vs 1286 stayed).

- Credit Card (Automatic): Similarly low churn rates (232 churned vs 1290 stayed).

- Electronic Check: Highest churn (1071 churned vs 1294 stayed), indicating a strong link between payment method and retention.

➢ Conclusion:

The analysis reveals critical factors influencing customer churn, including contract type, payment method, and customer tenure. By addressing these areas with targeted strategies, the company can enhance customer satisfaction and reduce churn rates. Implementing recommendations, especially for new customers and those utilizing less stable payment methods, will be vital for long-term success.