

Objective:

- The analysis explores customer churn patterns, focusing on factors such as payment methods, contract types, tenure, and demographic attributes.
- The goal is to identify which factors are most strongly associated with higher churn rates to guide customer retention strategies.

Key Insights & Findings:

1. Contract Type and Churn:

- Customers on **month-to-month contracts** have the highest churn rate (42%).
- Churn rates drop significantly for customers on **one-year (11%)** and **two-year contracts (3%)**.
- **Implication:** Longer contract periods act as a strong retention tool, as extended commitments reduce churn likelihood.

2. Payment Methods and Churn:

- Customers paying via **electronic checks** have the highest churn rate (45%).
- Customers using **credit cards, bank transfers, or mailed checks** show lower churn rates (15–18%).

- **Implication:** Convenience, security, or trust issues with electronic payments may be driving churn. Encouraging a shift to more stable payment methods could reduce churn.

3. Churn by Tenure:

- Customers with **less than one year of tenure** exhibit the highest churn rate (50%).
- Churn reduces for customers with **1–3 years of tenure (35%)** and further drops for those with **more than three years (15%)**.
- **Implication:** Early engagement, especially in the first year, is critical to retention.

4. Churn by Internet Service Type:

- Customers using **Fiber Optic services** have a higher churn rate (30%) compared to **DSL customers (20%)**.
- **Implication:** Higher churn in Fiber Optic services may be due to increased competition or dissatisfaction with speed and reliability. Understanding and addressing these issues is essential.

5. Senior Citizens and Churn:

- Senior citizens (aged 65+) have a churn rate of **41%**, compared to **26%** for non-senior citizens.
- **Implication:** Special retention programs tailored for senior customers may help reduce churn in this demographic.

Visualizations & Data Insights:

1. Bar Charts and Line Graphs:

- Churn by payment method: Electronic check users churn almost three times more than those using credit cards or other traditional methods.
- Tenure vs. churn rate: A clear declining trend in churn as customer tenure increases.

2. Percentage Distribution of Churn Across Factors:

- **Payment Methods:** 45% churn for electronic check users, 15% for credit card users.
- **Contract Types:** 42% churn for month-to-month contracts, 11% for one-year contracts, 3% for two-year contracts.
- **Tenure:** 50% churn in the first year, dropping to 15% after three years.

Recommendations:

1. Promote Long-Term Contracts:

- Offer incentives such as discounts or added benefits to encourage customers to commit to longer contracts.

2. Address Payment Method Concerns:

- Launch campaigns to educate and encourage customers to switch from electronic checks to more

secure payment methods like credit cards or bank transfers.

3. Customer Engagement in Early Tenure:

- Enhance the customer experience and engagement in the first year through loyalty programs, onboarding assistance, and personalized offers.

4. Special Senior Citizen Retention Programs:

- Develop targeted retention strategies for senior customers, such as personalized offers, enhanced customer service, or dedicated support programs.