

Summary of Telecom Customer Churn Analysis:

Objective:

The goal of this analysis was to understand what factors contribute to customer churn in the telecom industry. We focused on aspects like **payment methods**, **contract types**, and **customer tenure** to identify patterns that could help reduce churn.

Key Insights:

1. Contract Type and Churn:

- **Month-to-month contracts** have the highest churn rate, with **42%** of these customers likely to leave.
- Customers on **longer contracts** (1-year and 2-year) have much lower churn rates, at **11%** and **3%**, respectively.
- **Takeaway:** Long-term contracts are more effective at keeping customers, so encouraging customers to commit to longer terms could improve retention.

2. Payment Methods and Churn:

- Customers using **electronic checks** have a **45% churn rate**, which is much higher than those using **credit cards** or **bank transfers** (around **15-18%**).
- **Takeaway:** The higher churn rate among electronic check users could be due to convenience or trust issues. Encouraging customers to switch to more secure payment methods could help reduce churn.

3. Churn by Tenure:

- Customers with less than **1 year** of tenure have the highest churn rate at **50%**.
- Churn decreases with time: **35%** for customers with **1-3 years** of tenure and just **15%** for those with more than **3 years**.
- **Takeaway:** Engaging customers early, especially within their first year, is critical to improving retention.

4. Churn by Internet Service Type:

- **Fiber optic users** have a higher churn rate (**30%**) compared to **DSL users** (**20%**).
- **Takeaway:** There may be issues with service quality or competition for fiber optic users. Improving service quality or customer satisfaction could help retain these users.

5. Senior Citizens and Churn:

- **Senior citizens** (aged 65+) have a churn rate of **41%**, compared to **26%** for younger customers.

- **Takeaway:** Special retention strategies targeting senior customers, such as personalized offers or customer service programs, could help reduce churn in this group.

Visual Insights:

- **Bar and Line Graphs:**
 - Visuals showed that **electronic check users** churn almost three times more than customers using more traditional payment methods.
 - **Churn by tenure** visuals confirmed that churn decreases as customers stay longer with the company, emphasizing the importance of early-stage engagement.
- **Churn Rates by Factor:**
 - **Payment Methods:** 45% churn for electronic check users vs. 15% for credit card users.
 - **Contract Types:** 42% churn for month-to-month contracts vs. 11% for yearly contracts.
 - **Tenure:** 50% churn in the first year, dropping to 15% after three years.

Recommendations:

1. **Promote Long-Term Contracts:**
Encourage customers to sign longer contracts by offering incentives, as these customers are less likely to churn.
2. **Address Payment Method Concerns:**
Launch campaigns to encourage customers to switch from electronic checks to more secure and reliable payment methods.
3. **Focus on Early Customer Engagement:**
Since churn is highest in the first year, improving the customer experience during this period is crucial for retention.
4. **Senior Citizen Retention Programs:**
Develop targeted retention programs for senior customers, such as personalized offers or assistance programs, to reduce churn in this demographic.