

# Executive Summary: Customer Churn Analysis

The customer churn analysis provides an in-depth examination of the factors that significantly impact customer retention. Using various visualizations and key metrics, the following insights were derived, providing guidance on actionable strategies to reduce churn.

## 1. Payment Method Impact on Churn

- Customers using **electronic checks** have the highest churn rate, with **45.5%** of them discontinuing services. This is significantly higher compared to customers using other payment methods, such as:
  - **Credit card payments**: Churn rate of **16%**.
  - **Bank transfers**: Churn rate of **17.9%**.
  - **Mailed checks**: Churn rate of **22.9%**.
- **Key Insight**: Payment method seems to play a critical role in customer satisfaction and retention. Encouraging customers to switch to more stable options (like credit cards or bank transfers) could lead to a reduction in churn.

## 2. Contract Type Influence

- The analysis shows a strong relationship between **contract length** and customer churn:
  - **Month-to-month contracts** exhibit the highest churn rate at **43.6%**, making it the riskiest group.
  - **One-year contracts** have a much lower churn rate of **11%**.
  - **Two-year contracts** have the lowest churn rate at just **3.8%**.
- **Key Insight**: Customers with longer-term contracts are more likely to stay with the company. Offering promotions or incentives to convert month-to-month customers to yearly contracts could help mitigate churn.

## 3. Demographic Insights on Churn

- **Senior citizens** are more prone to churn, with **41%** of senior customers discontinuing services. In comparison:
  - **Non-senior citizens** have a churn rate of only **22%**.
- **Key Insight**: Senior citizens may require more tailored customer service or incentives to retain them, as they represent a vulnerable demographic in terms of churn.

## 4. Service Bundling and Usage

- Customers subscribing to **multiple services** (e.g., phone, internet, and TV) exhibit a significantly lower churn rate, typically around **10-12%**. In contrast, those using **single services** (e.g., only internet) have a churn rate of approximately **30%**.  
**Key Insight**: Offering **bundled services** or discounts for multi-service packages can help increase retention by providing more value and convenience to customers.

## 5. Tenure and Customer Loyalty

- Customers with **short tenures** (less than 12 months) have a churn rate of **52%**, whereas those with **longer tenures** (over 12 months) have a churn rate of only **10%**.

**Key Insight:** The early months are critical for customer retention. Implementing **welcome offers** or **onboarding programs** during this period could help build loyalty and decrease early churn.

## 6. Internet Service Type

- **Fiber optic users** have a churn rate of **41%**, which is significantly higher compared to **DSL users**, who have a churn rate of **14.5%**. This suggests that issues with fiber-optic services (such as reliability or pricing) may be contributing to customer dissatisfaction.

**Key Insight:** Addressing potential service quality issues and offering competitive pricing for fiber-optic services could reduce churn among this segment.

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## Recommendations for Reducing Churn:

1. **Promote Stable Payment Methods:** Encourage customers to switch from electronic checks to bank transfers or credit card payments, where churn rates are much lower.
2. **Incentivize Long-term Contracts:** Offering discounts, perks, or loyalty programs for customers who switch to one-year or two-year contracts could significantly lower churn.
3. **Focus on Senior Citizens:** Design special retention strategies tailored for senior citizens, such as enhanced customer support or targeted incentives.
4. **Bundle Services:** Promote bundled service offerings to customers to reduce the likelihood of churn, as multi-service users are less likely to leave.
5. **Improve Fiber-optic Experience:** Investigate and resolve any potential issues with fiber-optic service offerings to prevent high churn rates in this segment.