

Customer Churn Analysis Report

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Executive Summary

The primary goal of this analysis was to identify and quantify the demographic, contract, and service-related factors that most strongly correlate with customer churn, enabling the development of targeted retention strategies.

The dataset shows that the overall churn rate is **26.54%** (1,869 out of 7,043 customers). This high baseline rate indicates an urgent need for intervention across multiple customer segments.

Key Insights & Data-Driven Findings

1. Contract Type is the Primary Churn Driver

The type of contract a customer holds is the most critical factor influencing their likelihood to churn, highlighting the power of commitment length in retention.

- **Month-to-Month:** This contract type accounts for the highest volume and highest rate of churn, with a churn rate of approximately **42.7%** (1,655 churn / 3,875 total customers).
- **Long-Term Contracts:** These demonstrate significant retention power:
 - One-Year Churn Rate: Approximately **11.2%**.
 - Two-Year Churn Rate: A minimal **2.8%**.
- **Tenure Distribution:** The analysis shows that month-to-month customers are concentrated at low tenures, while longer contracts successfully extend the customer tenure (peaking around 60–72 months).

2. Payment Method Represents Significant Risk

A specific payment method, Electronic Check, presents a disproportionately high risk for customer attrition.

- **Electronic Check:** This method has the highest absolute number of churned customers, with an approximate churn rate of **46.7%**. This suggests potential issues related to user experience, security perceptions, or transaction failures associated with this gateway.
- **Other Methods:** Bank transfer, Credit card, and Mailed check methods show significantly lower churn volumes, reinforcing that the payment mechanism itself is a primary factor.

3. Senior Citizens are a Vulnerable Demographic

Demographic analysis reveals that senior customers are far more likely to churn than the non-senior segment.

- **Senior Citizen Churn Rate:** The data shows that **41.7%** of senior citizens churn.
- **Non-Senior Churn Rate:** In contrast, only **23.6%** of non-senior customers churn.
- **Implication:** This **18.1 percentage point difference** highlights the need for dedicated and specialized support or tailored product offerings for this specific demographic.

4. Internet Service and Charges Correlation

Service type and monthly cost are also correlated with churn risk.

- **Fiber Optic Risk:** Customers using Fiber Optic who churn generally have very high Monthly Charges (median around \$95-\$100).
 - **General Charges Trend:** Across all services, customers who churn tend to have higher monthly charges than those who are retained. This suggests a perceived poor value-for-money proposition for high-cost services, regardless of the technology used.
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Recommendations

Based on the quantitative insights, the following four strategies are recommended for immediate implementation:

Recommendation	Priority	Supporting Data and Action
1. Aggressive Contract Promotion	High	<p>Month-to-month churn is 42.7% vs. two-year churn at 2.8%.</p> <p>Action: Introduce compelling incentives (e.g., discounted rates, free add-ons) to migrate month-to-month customers to one-year or two-year contracts, focusing on this conversion within the first 6 months of tenure.</p>
2. Audit Electronic Payment Method	High	<p>Electronic Check users churn at approximately 46.7%.</p> <p>Action: Investigate the Electronic Check payment gateway for user experience, security perceptions, and failure rates. Proactively encourage high-risk customers to switch to automatic Credit Card or Bank Transfer methods through small discounts or service credits.</p>
3. Targeted Senior Citizen Retention	Medium	<p>Senior Citizen churn is 41.7% vs. Non-Senior churn at 23.6%.</p> <p>Action: Develop a tailored support program (e.g., dedicated support line, simplified billing/service guides) and personalized value offers for senior customers to improve satisfaction and reduce attrition in this high-risk segment.</p>
4. Enhance Fiber Optic Value	Medium	<p>Fiber Optic customers, particularly those with high charges, show high churn risk.</p> <p>Action: Conduct customer satisfaction surveys focused on Fiber Optic users to pinpoint the source of dissatisfaction (e.g., reliability, speed consistency). Ensure the perceived value justifies the higher monthly cost.</p>