

Telco Customer Churn Analysis - Executive Summary

Executive Summary

This exploratory data analysis focuses on identifying key factors contributing to customer churn in a telecom company. The insights were derived using detailed preprocessing, transformation, and visualization techniques.

Data Preparation & Cleaning

- Missing values in TotalCharges were filled with 0 where tenure was also 0.
- Binary values for SeniorCitizen were mapped to "Yes" and "No" for better readability.

Key Insights from Visualizations

1. Churn Rate Overview:

- Approximately 26.54% of the customers have churned, as shown in the pie chart.

2. Demographic Factors:

- Senior Citizens show a higher churn rate compared to younger customers.

3. Tenure Influence:

- Customers with longer tenure are more likely to stay.
- New or short-term customers are more prone to churn.

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4. Contract Type Impact:

- Month-to-month contract customers churn significantly more.
- Customers with 1-year or 2-year contracts are more loyal.

5. Payment Method Analysis:

- Use of electronic check as a payment method is highly associated with churn.
- Other methods (credit card, mailed check) show more stability.

Conclusion

Your analysis effectively highlights that contract type, tenure, age (senior citizen), and payment method are strong indicators of churn behavior. The visualizations support these findings and provide actionable insights for customer retention strategies, such as promoting long-term contracts and offering incentives for secure payment methods.