

The analysis of the Telco Customer Churn dataset provides insights into customer behavior, preferences, and key factors that drive churn. The dataset includes customer demographic information, services used, account tenure, billing information, and whether the customer has churned. Below is the executive summary for each chart and a high-level overview of the analysis results.

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## 1. Customer Churn Distribution

- **Chart Summary:** The distribution of churn indicates that **26.5%** of customers have churned, while **73.5%** remain with the company. This shows that approximately one-quarter of the customer base is leaving, which suggests a need to address customer retention.
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## 2. Contract Type Distribution

- **Chart Summary:** The majority of customers, around **56%**, are on month-to-month contracts, which are typically more prone to churn. In comparison, **22%** of customers have a one-year contract, and another **22%** have a two-year contract. This highlights that long-term contracts might contribute to lower churn rates, as fewer customers leave when committed to longer contracts.
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## 3. Churn by Contract Type

- **Chart Summary:** Among those who churned, the **month-to-month contract** category shows the highest churn rate, with around **43%** of customers in this group churning. In contrast, customers on one-year and two-year contracts show significantly lower churn rates, around **11%** and **4%**, respectively. This reinforces the link between contract length and customer retention.
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## 4. Payment Method Breakdown

- **Chart Summary:** **Electronic check** is the most common payment method among churned customers, with about **35%** of them using this option. Other payment methods, such as bank transfer, credit card, and mailed check, account for **22%**, **19%**, and **24%**, respectively. This suggests a potential relationship between payment methods and churn, where electronic check users may be more likely to leave.

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## 5. Churn by Internet Service Type

- **Chart Summary:** **Fiber optic** service users have the highest churn rate, accounting for about **41%** of the churned customers, while **DSL** users make up **13%**. Interestingly, customers with **no internet service** account for **46%** of the churn, likely due to the absence of this key service offering.

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## 6. Monthly Charges and Churn

- **Chart Summary:** Customers who churned tend to have higher monthly charges. About **70%** of churned customers pay more than **\$70** per month, while a majority of customers who stayed pay below this threshold. This suggests that high monthly charges could be contributing to churn.

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## 7. Senior Citizens and Churn

- **Chart Summary:** Senior citizens represent about **16%** of the total customer base but account for **26%** of those who churned. This indicates that senior customers have a higher churn rate compared to younger customers, possibly due to pricing or service needs not being aligned with their preferences.

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## 8. Tech Support and Churn

- **Chart Summary:** Among customers who did not opt for **tech support**, around **33%** churned, while only **15%** of those with tech support churned. Offering tech support could potentially improve retention rates.

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## 9. Churn by Tenure

- **Chart Summary:** The churn rate is highest among customers with a tenure of less than **12 months** (about **45%**), whereas those with longer tenure (more than 36 months) have a churn rate of less than **10%**. This suggests that new customers are more likely to leave, indicating that initial customer experience is critical.