

Customer Churn Analysis

General Insights and Interpretations

Customer Demographics

Visualization: Customer Demographics

Insights:

- **Non-Senior Majority:** The majority of the company's customers are non-senior individuals, indicating that younger and middle-aged demographics dominate the customer base.
- **Gender Distribution:** There is a fairly even split between male and female customers, suggesting that the company's services appeal equally to both genders.
- **Dependents and Partners:** Customers without partners tend to have no dependents as well, indicating a possible correlation between marital status and having dependents.

Customers by Service

Visualization: Customers by Service

Insights:

- **Phone and Internet Services:** Most of the company's customers have both phone and internet services, which implies a preference for bundled services.
- **Popular Internet Service:** Fiber optic is the most popular type of internet service, especially among customers with multiple phone lines, reflecting the demand for high-speed internet.
- **DSL Service:** DSL is only provided to customers without phone service, indicating a targeted offering based on customer needs.

Billing Options Analysis

Visualization: Billing Preferences

Insights:

- **Electronic Check Dominance:** Electronic Check is the most popular payment method among customers who opt for paperless billing, showcasing the convenience and preference for digital payments.
- **Mailed Check Preference:** Mailed Check is the most popular payment method among customers who do not opt for paperless billing, indicating a preference for traditional billing methods.
- **Month-to-Month Flexibility:** Month-to-month customers prefer electronic checks and paperless billing, highlighting their preference for flexibility and convenience.

- **Long-Term Contracts:** Customers on longer contracts (one year and two years) also frequently adopt paperless billing, possibly due to the stability and predictability of their billing cycles.

Pricing and Longevity Analysis

Visualization: Average Monthly Charge vs Tenure

Insights:

- **Initial Charge Increase:** The average monthly charge starts at \$41.42 and increases sharply in the first three months to \$57.21, likely due to introductory offers expiring.
- **Gradual Charge Rise:** The charges continue to rise gradually, reaching around \$80 over a longer tenure, indicating that customers subscribe to more services over time.

Visualization: Average Monthly Charge vs Tenure by Gender

Insights:

- **Initial Gender Pricing Difference:** Women are charged almost twice as much as men initially, suggesting possible gender-based introductory offers.
- **Converging Prices:** By the third month, men's pricing catches up to women's pricing, indicating that any initial pricing differences level out over time.
- **Long-Term Pricing:** Long-term pricing converges for both genders, showing no significant gender-based pricing strategies.

Visualization: Average Monthly Charge vs Tenure by Senior Citizen

Insights:

- **Senior Pricing:** Senior citizens tend to be charged more than non-seniors, especially for shorter tenures, possibly due to higher service needs or targeted pricing.

Visualization: Senior Monthly Charge by Multiple Lines

Insights:

- **Multiple Lines:** Seniors with multiple lines are charged more than non-seniors, indicating that seniors may subscribe to more comprehensive service packages.

Visualization: Senior Monthly Charge by Internet Service

Insights:

- **Internet Service:** Seniors using fiber optic internet service are charged more than non-seniors, reflecting the higher cost of premium internet services.

Highlight Table Analysis

Visualization: Pricing by Demographics and Services

Insights:

- **Service Charges:** Charges are highest for fiber optic and multiple lines across all demographics, indicating the premium pricing of these services.
- **Demographic Impact:** Gender and senior status have less impact on pricing compared to the type of services subscribed.

Visualization: Percentage of Customers by Internet Service and Senior Citizen Status

Insights:

- **Fiber Optic Preference:** Seniors prefer fiber optic internet more than non-seniors, leading to higher average charges among seniors.

Churn Analysis

Visualization: Churn Rates by Demographics and Services

Insights:

- **High Churn for Fiber Optic:** Churn rates are higher for fiber optic internet customers, indicating potential dissatisfaction with high prices.
 - **Service Satisfaction:** Customers using DSL or those without internet service have lower churn rates, suggesting higher satisfaction or lower expectations.
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