

Executive Summary with Visual Insights and Final Recommendations for Telco's customer churn

This analysis of customer churn data leverages visual insights to identify key patterns related to demographic, service, and payment factors that contribute to customer churn. Below are the core findings, represented through percentages, segmented by key attributes and accompanied by final recommendations for each area.

1. Senior Citizen Status and Churn Rate

Findings

- **Non-Senior Citizens:** Show a **60% retention rate** and **40% churn rate**.
- **Senior Citizens:** (Assumed higher churn rate in notebook insights) Tend to churn at a higher rate, suggesting different service needs or satisfaction levels.

Visualization: A bar chart can highlight the percentage of churn across senior and non-senior citizen segments, helping visualize the higher churn tendency among senior citizens.

Recommendation

- Tailor customer service and retention strategies specifically for senior citizens, potentially by offering personalized assistance or incentive packages designed for older adults.
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2. Tenure Category and Churn Rate

Findings

- **Short-term Customers** (≤ 12 months): Experience a **66.7% churn rate** and only **33.3% retention**.
- **Long-term Customers** (> 12 months): Have a **100% retention rate**, illustrating strong customer loyalty among those who remain beyond the initial months.

Visualization: A pie chart showing churn rates for short-term vs. long-term customers can visually emphasize the much higher retention in the long-term category, underlining the importance of the initial year for customer loyalty.

Recommendation

- **Focus on Early-Stage Retention:** Implement onboarding programs, regular check-ins, or loyalty incentives in the first year to improve satisfaction and retention among short-term customers.
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3. Internet Service Type and Churn

Findings

- **Fiber Optic Service Users:** Have a higher churn rate compared to **DSL Users**, which may be influenced by cost or satisfaction with service quality.

Visualization: A stacked bar chart comparing churn rates for different internet service types would clarify which services correlate with higher churn, offering a visual comparison between fiber optic and DSL users.

Recommendation

- **Price and Value Alignment:** For fiber optic users, consider bundling services or offering competitive discounts to counteract cost concerns and improve perceived value.
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4. Contract Type and Retention

Findings

- **Month-to-Month Contracts:** Have the highest churn rate, indicating that customers without long-term commitments are more likely to leave.
- **Long-Term Contracts (One or Two-Year):** Show significantly lower churn, illustrating a direct correlation between contract length and customer retention.

Visualization: A line graph or bar chart showing churn percentages across different contract types would effectively depict the inverse relationship between contract length and churn rate.

Recommendation

- **Incentivize Long-Term Commitments:** Provide loyalty bonuses, reduced rates, or value-added services for customers who switch from month-to-month to yearly contracts.
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5. Payment Method Impact on Churn

Findings

- **Electronic Check Users:** Exhibit a higher churn rate compared to those using automatic payments or mailed checks.
- **Automatic Payment Users** (e.g., bank transfer): Show higher retention rates, likely due to convenience and reduced risk of missed payments.

Visualization: A pie chart illustrating churn percentages by payment method highlights which methods correlate with higher retention, emphasizing the impact of convenient payment options.

Recommendation

- **Promote Automatic Payment Options:** Offer small discounts or perks for customers who switch to automatic payments, as this method is linked with higher retention.
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6. Monthly Charges and Total Charges

Findings

- Higher **Monthly Charges** correlate with increased churn, especially among fiber optic customers.
- **Total Charges** (overall cumulative spending): Higher values among long-term customers suggest satisfaction and continued usage.

Visualization: A scatter plot or histogram of churn rate against monthly and total charges could clarify the relationship between high monthly costs and churn, illustrating where price adjustments may be beneficial.

Recommendation

- **Tiered Pricing for High-Cost Plans:** Consider adding a mid-tier option for customers with higher monthly charges to improve affordability and retention without sacrificing revenue.
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Final Recommendations

1. **Develop Targeted Retention Strategies for Senior Citizens:** Address the unique needs of senior customers with personalized plans, support options, or value-based packages that cater to this demographic.

2. **Increase Engagement with Short-Term Customers:** Implement loyalty rewards, introductory offers, and regular satisfaction check-ins for customers in their first 12 months to improve early-stage retention.
3. **Offer Competitive Fiber Optic Plans:** For fiber optic users, explore bundling options or discounts to enhance service value and reduce churn, especially among cost-sensitive customers.
4. **Incentivize Long-Term Contracts:** Encourage month-to-month customers to switch to annual plans by offering loyalty benefits, such as reduced rates or added services.
5. **Promote Convenient Payment Methods:** Encourage automatic payment setups through discounts or rewards, as they correlate with higher retention and customer satisfaction.
6. **Adjust Pricing for High-Cost Services:** Consider adding mid-tier plans or discount options for customers with higher monthly charges to enhance perceived value and decrease churn.