Executive Summary – Customer Churn Analysis

Overview

The analysis explores the customer churn behavior of a telecommunications company to identify key drivers behind customer attrition. Out of the total customer base, **approximately 26.5% of customers have churned**, indicating a moderate but concerning churn rate. The study uses visual analysis (pie charts, bar plots, and count plots) to evaluate the influence of demographics, tenure, contract type, payment methods, and service subscriptions on churn.

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1. Demographic Insights

- **Senior Citizens:** Around **42–45%** of senior citizens have churned compared to only **22–24%** among non-senior customers.
  → This suggests that **older customers are nearly twice as likely** to discontinue the service, possibly due to higher price sensitivity or lower tech adoption.

- **Gender and Dependents:** Gender has minimal effect, but customers **without dependents or partners** show a **10–15% higher churn** rate, implying that single-user accounts are less loyal.

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2. Tenure and Customer Loyalty

- Customers with a **tenure of 1–2 months** show a churn rate exceeding **60%**, highlighting **early dissatisfaction** or onboarding challenges.

- As tenure increases, churn declines sharply—customers with **tenure above 2 years** show churn below **10%**.
  → Long-term retention correlates strongly with satisfaction and perceived value.

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3. Contract and Payment Behavior

- **Contract Type:**

  - **Month-to-month: ~55%** churn rate

  - **One-year: ~11%** churn

    - **Two-year: ~3%** churn
      → Customers with short-term contracts are **15–20 times more likely** to churn than long-term subscribers.

- **Payment Method:** Customers paying through **electronic check** have a **45–50% churn rate**, compared with only **15–20%** for those using credit card, bank transfer, or mailed checks.
  → Indicates potential friction or lack of convenience in the electronic-check process.

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4. Service-Related Insights

- Customers who **use Internet Service** and **Phone Service** are **less likely to churn**.
- Lack of add-on services contributes to attrition:
    - No **Online Security: ~40% churn**
    - No **Tech Support: ~42% churn**
    - No **Online Backup: ~38% churn**
    - No **Streaming TV/Movies: ~33–35% churn**
- Conversely, those who have all or most of these services show churn below **15%**, suggesting that **service bundling** increases stickiness.

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5. Key Takeaways

- **High-risk groups:** Senior citizens, new customers (tenure < 6 months), month-to-month subscribers, and electronic-check users.
- **Low-risk groups:** Customers with multi-year contracts and multiple bundled services.
- **Primary drivers of churn:** Contract length, tenure, and service engagement level.

Strategic Recommendations

1. **Improve Early Experience:** Focus retention campaigns on the **first 3 months**—personalized onboarding, follow-ups, and loyalty discounts.

2. **Encourage Long-Term Contracts:** Offer **discounts or added benefits** for migrating to annual or two-year contracts.

3. **Promote Service Bundles:** Combine core and optional services (Internet + Security + Backup) to increase customer dependence.

4. **Optimize Payment Experience:** Encourage auto-payment or digital-wallet use; provide **cashback incentives** for switching from electronic checks.

5. **Targeted Retention for Senior Customers:** Simplify interfaces, improve support responsiveness, and offer senior-friendly plans.

Conclusion

The churn rate of 26.5% highlights a strong need for **retention-focused strategies**. By improving early engagement, enhancing value through service bundles, and incentivizing longer contracts, the company can potentially **reduce churn by 10–12 percentage points** within a year, significantly improving overall customer lifetime value (CLV).