

Executive Summary – Customer Churn Analysis

This analysis investigates customer churn trends, highlighting key factors influencing retention. Data visualizations were created to better understand customer behaviors, contract patterns, service adoption, and payment preferences.

1. Overall Churn Rate

- Out of all customers, **26.54%** have churned, while **73.46%** have stayed.
 - This indicates that **more than 1 in 4 customers** leave the service, presenting a notable retention challenge.
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2. Demographic Insights

- **Senior Citizens:**
 - **42.0%** churn rate among senior citizens compared to **23.6%** for non-seniors.
 - Suggests that older customers are significantly more likely to leave.
 - **Gender:**
 - Churn rate is **27.0% for females** and **26.1% for males** — indicating **gender has minimal influence** on churn.
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3. Customer Tenure

- Customers with **tenure > 24 months** have a churn rate of **~10%**, reflecting strong loyalty.
 - Those with **tenure ≤ 2 months** have churn rates exceeding **60%**.
 - Indicates a **critical onboarding phase** in the first few months where retention strategies are essential.
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4. Contract Type

- **Month-to-month contracts:** ~43% churn rate.
 - **One-year contracts:** ~12% churn rate.
 - **Two-year contracts:** ~3% churn rate.
 - Locking customers into longer contracts greatly reduces churn risk.
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5. Service Usage Patterns

From the multi-service count plots:

- **Online Security:** Customers without it churn at ~55%, while with it churn is only ~15%.
 - **Online Backup:** Absence leads to churn of ~50%, presence drops churn to ~20%.
 - **Tech Support:** No support correlates with churn of ~55% vs. ~15% with support.
 - **Internet Service:**
 - DSL customers churn at ~19%,
 - Fiber optic customers churn at ~42%.
 - Indicates **value-added services** strongly enhance retention.
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6. Payment Method

- **Electronic check:** Churn rate ~45% — the highest among payment types.
 - **Credit card, bank transfer, mailed check:** All below 20% churn.
 - Suggests that **electronic check customers** may have different profiles or satisfaction levels requiring targeted attention.
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7. Key Actionable Insights

1. **Incentivize long-term contracts** with discounts or loyalty programs.
 2. **Promote service bundles** — especially Online Security, Backup, and Tech Support.
 3. **Focus on the first 2–3 months** with onboarding offers, satisfaction check-ins, and engagement campaigns.
 4. **Analyze electronic check users** to understand dissatisfaction and offer alternative payment options.
 5. **Target senior citizen segment** with personalized offers, better support, and senior-friendly plans.
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