Executive Summary – Customer Churn Analysis

The analysis examined a **Telco dataset of 7,043 customers** to identify churn drivers and propose retention strategies. The dataset covered demographics, subscribed services, contract details, billing, payment methods, and churn status. **Churn** is defined as customers who discontinued the service during the observed period.

Key Insights

1. Overall Churn Rate

- Out of **7,043 customers, ~1,869 churned**, resulting in a **churn rate of ~26.5%**.

- This churn rate is **above industry benchmarks (20–22%)**, indicating an urgent need for targeted retention efforts.

---

2. Demographic Patterns

- **Senior Citizens (16% of customers):**

  - **42% of senior citizens churned**, significantly higher than the overall average.

- **Partner/Dependents:**

  - **Customers without partners** showed a churn rate of **32%** vs **19%** for those with partners.

  - **Customers without dependents** churned at **31%**, compared to **18%** among those with dependents.

- **Gender:** Churn distribution is almost equal across genders (**27% for females, 26% for males**), indicating minimal gender influence.

---

3. Service-Related Trends

- **Internet Service Type:**

    - **Fiber Optic customers (42% of total)** had a churn rate of **41%**, nearly double that of **DSL users (19%)**.

- **Value-Added Services:**

    - Customers **without Tech Support** churned at **36%**, compared to **17%** with Tech Support.

    - Lack of **Online Security** or **Device Protection** was associated with **churn rates >33%**, emphasizing the importance of these services for retention.

---

4. Contract & Billing Factors

- **Contract Type:**

    - **Month-to-Month contracts (55% of customers)** experienced the **highest churn at ~45%**, compared to **12% for one-year** and just **3% for two-year contracts**.

- **Billing Method:**

    - Customers on **Paperless Billing** churned at **33%**, higher than the **22%** churn for those with mailed billing.

- **Payment Method:**

    - **Electronic check users (34% of customers)** churned at **45%**, the highest among all payment methods; those using **automatic bank/credit card payments** churned at only **15%**.

---

5. Tenure and Financial Insights

- **Tenure:**

- - **New customers (<12 months)** accounted for **~46% churn**, whereas customers with **tenure >24 months** churned at only **11%**, highlighting retention challenges during onboarding.

- **Charges:**

  - Customers paying **monthly charges above $80** had a churn rate of **38%**, compared to **22%** for those paying below $50.

  - This indicates a **price sensitivity** among high-charge customers.

Strategic Recommendations

1. **Retention for New Customers:**

   - Introduce **onboarding programs and loyalty rewards** for customers in their **first 12 months** to reduce their high churn rate.

2. **Encourage Long-Term Contracts:**

   - Offer **discounts or benefits** to shift customers from **month-to-month plans** (45% churn) to **annual or bi-annual contracts** (≤12% churn).

3. **Improve Fiber-Optic Experience:**

   - Prioritize **service quality improvements and targeted outreach** to fiber-optic customers who show the **highest churn at 41%**.

4. **Bundle Value-Added Services:**

   - Promote **Tech Support and Security packages** since their presence correlates with a **churn reduction from 36% to ~17%**.

5. **Payment and Billing Optimization:**

   - Offer **incentives for auto-payment enrollment**, which lowers churn by **up to 30 percentage points** compared to electronic checks.

   - Re-evaluate the customer experience of **paperless billing** to address dissatisfaction.

6. **Pricing Strategy:**

   ○ Consider **tiered pricing** or discounts for **high-charge customers ($80+)** who churn at **38%**.

Summary of Key Metrics

Factor	Segment	Churn Rate (%)
Overall	All Customers	**26.5%**
Senior Citizens	Age ≥60	**42%**
No Partner	vs. With Partner	**32% vs. 19%**
Fiber Optic vs DSL		**41% vs. 19%**
Month-to-Month Contract	vs. 1-Year / 2-Year	**45% / 12% / 3%**
Paperless Billing	vs. Mailed	**33% vs. 22%**
Electronic Check Payment	vs. Auto-Payment	**45% vs. 15%**
Tenure <12 months	vs. >24 months	**46% vs. 11%**
Monthly Charges >$80	vs. <$50	**38% vs. 22%**

Conclusion

The churn analysis reveals that **pricing, contract terms, service quality (fiber-optic), and onboarding experience** are the primary churn drivers. Addressing these factors could **reduce churn by 8–12 percentage points**, improving retention and customer lifetime value.