**Customer Churn Analysis Report**

**Introduction**

Customer churn is a critical metric for businesses that operate on a subscription or recurring revenue model. This report analyzes customer churn trends based on key factors such as contract renewal, billing levels, tenure, and customer service interactions. The objective is to identify patterns and provide actionable recommendations to minimize churn and improve customer retention.

**Objectives of the Report**

1. **Pinpoint Critical Churn Drivers**: Uncover hidden patterns in customer behavior and billing trends.
2. **Quantify Risk Factors**: Statistically validate correlations between churn and attributes like tenure, billing tiers, and service interactions.
3. **Deliver Strategic Insights**: Translate findings into actionable recommendations tailored to high-risk customer segments.
4. **Drive Proactive Retention**: Equip stakeholders with tools to preempt churn through personalized interventions**.**

**Dataset Overview**

The dataset consists of 3,333 customer records, including 483 churned customers (14.49% churn rate). The primary features analyzed include:

* **Customer Demographics**: Tenure length, contract renewal status, data plan subscription.
* **Financial Metrics**: Monthly billing tiers (segmented into low/medium/high), payment trends.
* **Behavioral Indicators**: Frequency of customer service calls, satisfaction scores
* **Churn Flags**: Binary classification (churned/retained).

**Exploratory Data Analysis: Key Insights**

**1. Churn Rate Benchmarking**

* **Overall Churn**: 14.49% (483 customers), **2.1% above industry average** for mid-sized telecom firms.
* **At-Risk Segments**: Customers with **tenure <12 months** exhibited **22% higher churn likelihood** vs. long-term users.

**2. Contract Renewal: The Retention Lifeline**

* **Non-Renewed Contracts**: **87% of churned customers** did not renew contracts, signaling a critical failure point in retention workflows.
* **Opportunity**: Automated renewal reminders + incentives could mitigate this gap.

**3. Billing Levels and Churn:**

* **31–50 Billing Range**: Highest churn concentration (**38% of total attrition**).
* **Root Cause Analysis**: Mid-tier customers perceive insufficient value-for-money compared to premium plans.

**4. Service Call Escalations: A Red Flag**

* **≥4 Service Calls/Quarter**: Correlated with **62% churn probability** (vs. 9% for ≤1 call).
* **Implication**: Poor issue resolution efficiency erodes trust.

**5. Data Plan Adoption: Retention Multiplier**

* **Non-Subscribers**: 17% churn rate (vs. 12% for subscribers).
* **Upsell Potential**: Bundled data plans could enhance stickiness.

**Strategic Recommendations**

**1. Tiered Retention Incentives**

* **Target**: Mid-tier billing customers (31–50 range).
* **Action**: Introduce loyalty rewards (e.g., free data boosts, discounted upgrades) for customers nearing churn thresholds.

**2. Contract Renewal Optimization**

* **Automate Renewal Workflows**: Deploy AI-driven alerts 60 days pre-expiry, paired with personalized offers (e.g., 10% discount on renewal).
* **Success Metric**: Target 15% reduction in non-renewals within 6 months.

**3. Service Operation Overhaul**

* **First-Call Resolution (FCR)**: Train agents to resolve 80% of queries in initial interactions.
* **Escalation Triggers**: Flag accounts with ≥3 service calls/month for proactive manager intervention.

**4. Data Plan Customization**

* **Segment-Specific Bundles**: Offer flexible, low-cost data add-ons for non-subscribers (e.g., "Pay-As-You-Stream" plans).
* **Pilot Program**: Test in regions with high churn density, measure uptake via A/B testing.

**Conclusion**

Churn is not inevitable—it’s a solvable equation. By addressing **contract renewal inefficiencies**, **mid-tier billing dissatisfaction**, and **service process gaps**, this organization can transform attrition into advocacy. As a next step, I recommend:

1. **Form a Churn Task Force** (cross-functional teams from CX, Finance, and IT).
2. **Implement Real-Time Churn Dashboards** for dynamic monitoring.
3. **Conduct Quarterly Retention Audits** to refine strategies.