

## Executive Summary – Customer Churn Analysis

### 1. Overview

This analysis aims to identify key drivers of customer churn and uncover actionable insights to improve customer retention. After data cleaning and preprocessing, it was observed that approximately 26–27% of customers have churned, indicating a notable retention challenge that requires targeted intervention.

### 2. Tenure-Based Insights

Tenure analysis reveals that churn is heavily concentrated among new customers, with around 45–50% of churned customers leaving within the first 1–2 months. This suggests potential issues in early onboarding and initial customer experience. Customers with longer tenure (more than one year) demonstrate significantly lower churn rates, emphasizing the importance of long-term engagement strategies.

### 3. Contract Type Analysis

Contract type plays a critical role in customer retention. Customers on month-to-month contracts account for nearly 85–90% of total churn, making them the most vulnerable segment. In contrast, customers subscribed to one-year and two-year contracts show much higher retention, indicating that longer contractual commitments help stabilize the customer base.

### 4. Service Usage Patterns

Over 90% of customers use PhoneService, indicating it is a basic requirement rather than a differentiator. However, many customers do not opt for bundled or internet-related add-on services, and the absence of services such as OnlineSecurity, OnlineBackup, DeviceProtection, and TechSupport is associated with higher churn. Streaming services show moderate adoption, suggesting they are optional value-added offerings rather than primary retention drivers.

### 5. Payment Method Impact

Payment behavior analysis indicates that customers using electronic check payment methods contribute the highest percentage of churn, whereas customers using automated payment options (credit cards or bank transfers) demonstrate stronger retention. This highlights the role of payment convenience and automation in reducing churn risk.

### 6. Key Business Takeaways

Customers with short tenure, month-to-month contracts, limited service adoption, and manual payment methods exhibit the highest churn risk. Retention efforts should focus on early customer engagement, promoting long-term contracts, service bundling, and auto-payment adoption to enhance customer lifetime value.

