

# Executive Summary: Telco Customer Churn Analysis

## Objective

The objective of this EDA was to analyze customer demographics, service subscriptions, and account-related attributes to identify patterns associated with customer churn. Understanding these trends can help the company develop targeted strategies to improve customer retention.

## Key Findings

### 1. Churn Rate Overview

- A significant proportion of customers have churned, highlighting the need for intervention strategies.
- Churn is more prevalent among specific customer groups, particularly those with month-to-month contracts.

### 2. Demographic Insights

- Senior citizens have a higher churn rate compared to younger customers.
- There is no significant gender-based difference in churn behaviour.

### 3. Service-Related Trends

- Customers without additional services such as Online Security, Online Backup, and Tech Support are more likely to churn.
- Fiber optic internet users have a higher churn rate compared to DSL users, possibly due to pricing or service issues.
- Streaming services (TV & movies) and multiple phone lines show a mixed impact on churn.

### 4. Contract and Billing Factors

- Customers on month-to-month contracts have the highest churn rate, while those with longer-term contracts (one-year or two-year) are more likely to stay.
- Electronic check payment methods correlate with higher churn compared to other payment methods like automatic bank transfers or credit card payments.
- Higher total charges generally indicate lower churn, suggesting that long-term customers are more stable.

### 5. Financial Implications

- Customers with lower monthly charges tend to churn more, indicating that promotional pricing or better value propositions could help in retention.
- The company should focus on converting month-to-month customers to long-term contracts and offering incentives for customers using payment methods associated with higher churn.

## Conclusion & Recommendations

- **Enhance Customer Retention Strategies:** Offer discounts or loyalty programs for long-term contract commitments.
- **Improve Service Offerings:** Promote additional services like Online Security and Tech Support to reduce churn.
- **Targeted Engagement:** Develop personalized retention campaigns for high-risk groups, such as senior citizens and fiber optic users.
- **Refine Payment Methods & Pricing:** Encourage customers to use automatic payments and analyze pricing structures to reduce dissatisfaction.