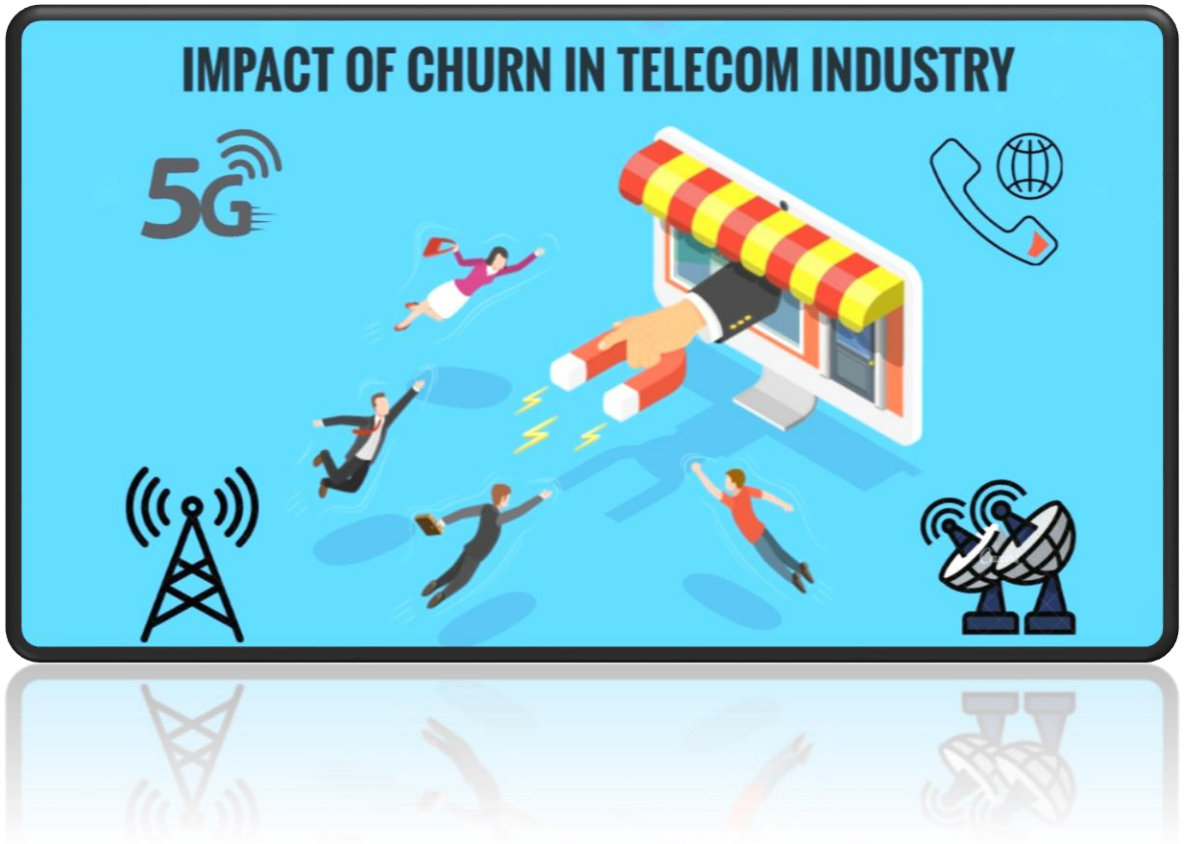
SYRIATEL CUSTOMER CHURN ANALYSIS

OUTLINE



- Project Overview
- Business Problem
- Objectives & Research Questions
- Data
- Models Incorporated
- Recommendations

PROJECT OVERVIEW

In Syria, SyriaTelcom confronts high customer churn due to intense competition and changing preferences, threatening revenue and market position.

The company aims to analyze data to identify churn drivers and devise targeted retention strategies, enhancing its competitive standing and customer loyalty.

BUSINESS PROBLEM

Challenge:

- Experiencing high churn rates.
- Declining customer satisfaction and loyalty.
- Resulting revenue losses and reduced market share.

Strategic Approach:

- **Development of a Predictive Model**: Utilize historical data and analytics.
- **Objective**: Identify customers at risk of churn.

Goal:

- Pre-empt churn to enhance retention.
- Cultivate lasting customer relationships.
- Implement targeted retention efforts for improved loyalty and satisfaction.

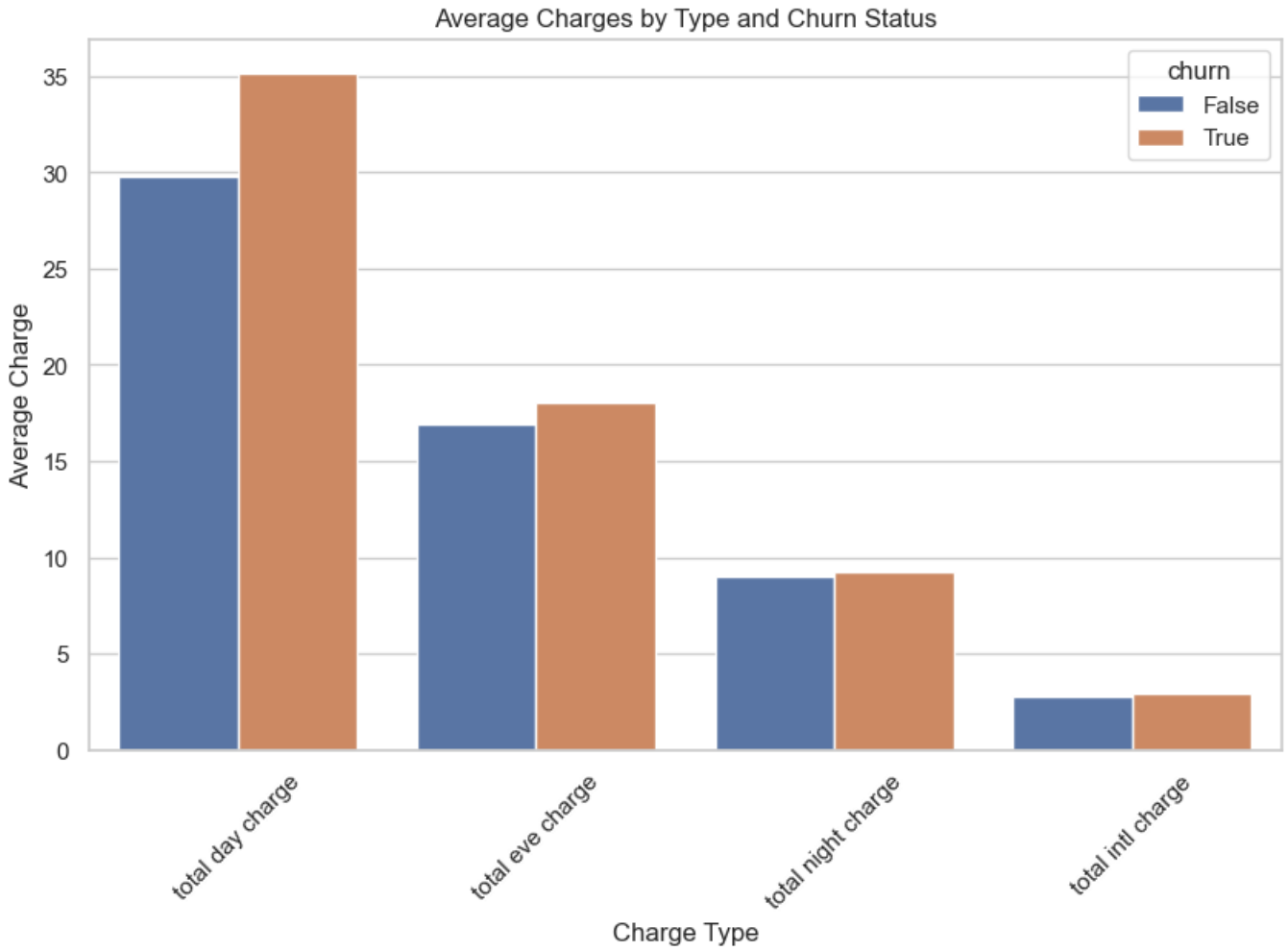
OBJECTIVES & RESEARCH QUESTIONS

Specific Objectives	Research Questions
 **Identify Churn Indicators**: Determine features and patterns differentiating churners from loyal customers.	What key factors significantly contribute to customer churn?
 **Enhance Customer Experience**: Address issues leading to churn, improving satisfaction and loyalty.	How are usage patterns and the intensity of service usage linked to churn likelihood?
 **Strategic Insights**: Provide data-driven recommendations for targeted retention strategies to minimize churn.	Do certain contract terms or pricing plans correlate with increased churn rates?
 **Predictive Modeling**: Develop algorithms to forecast churn risk for individual subscribers.	Which model offers the highest accuracy in predicting customer churn?

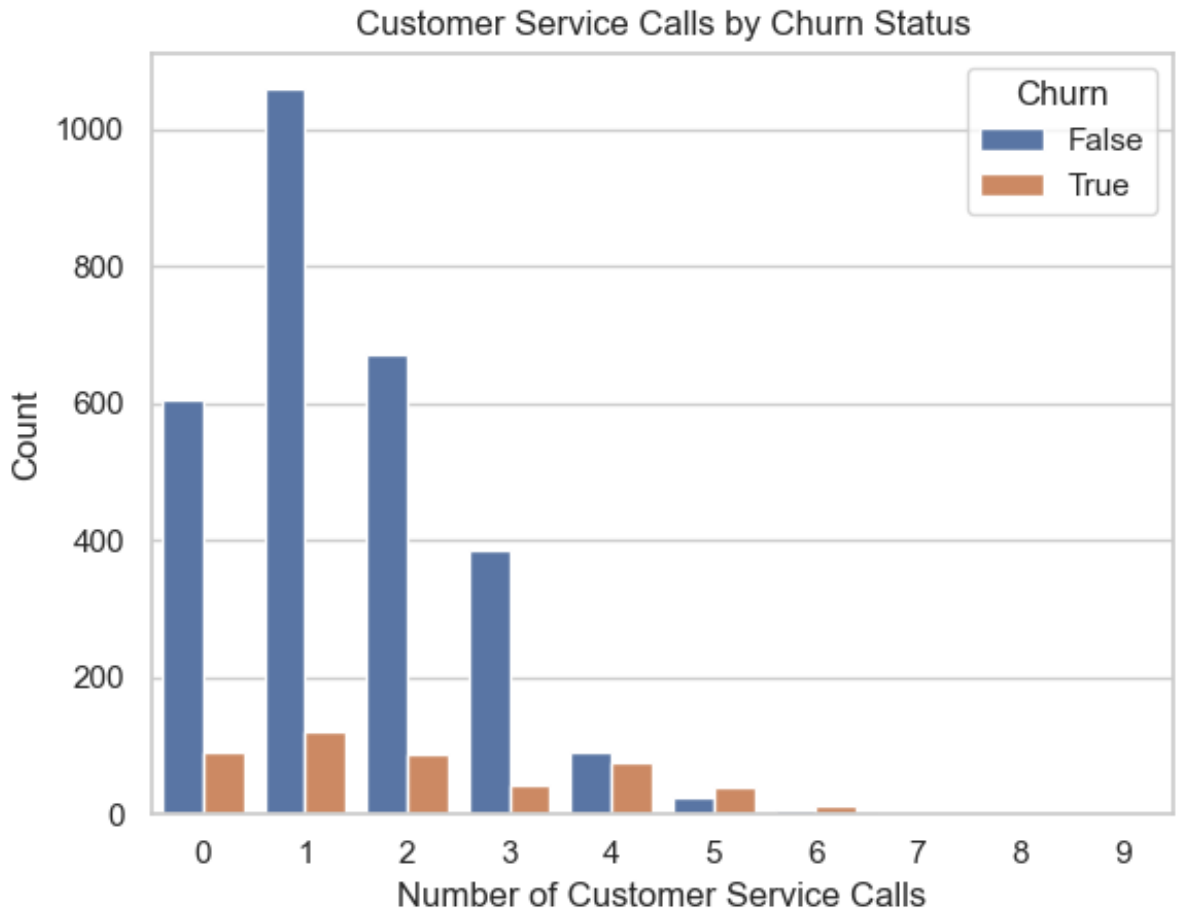
DATA

- Data Origin – Kaggle.
- Length of data frame 3333(inclusive of outliers), after dropping numerical outliers the length of the data frame is 2860.
- The distribution of our target variable (‘Churn’):
  - ✓ 85% of retained customers
  - ✓ 15% of Customers Churned

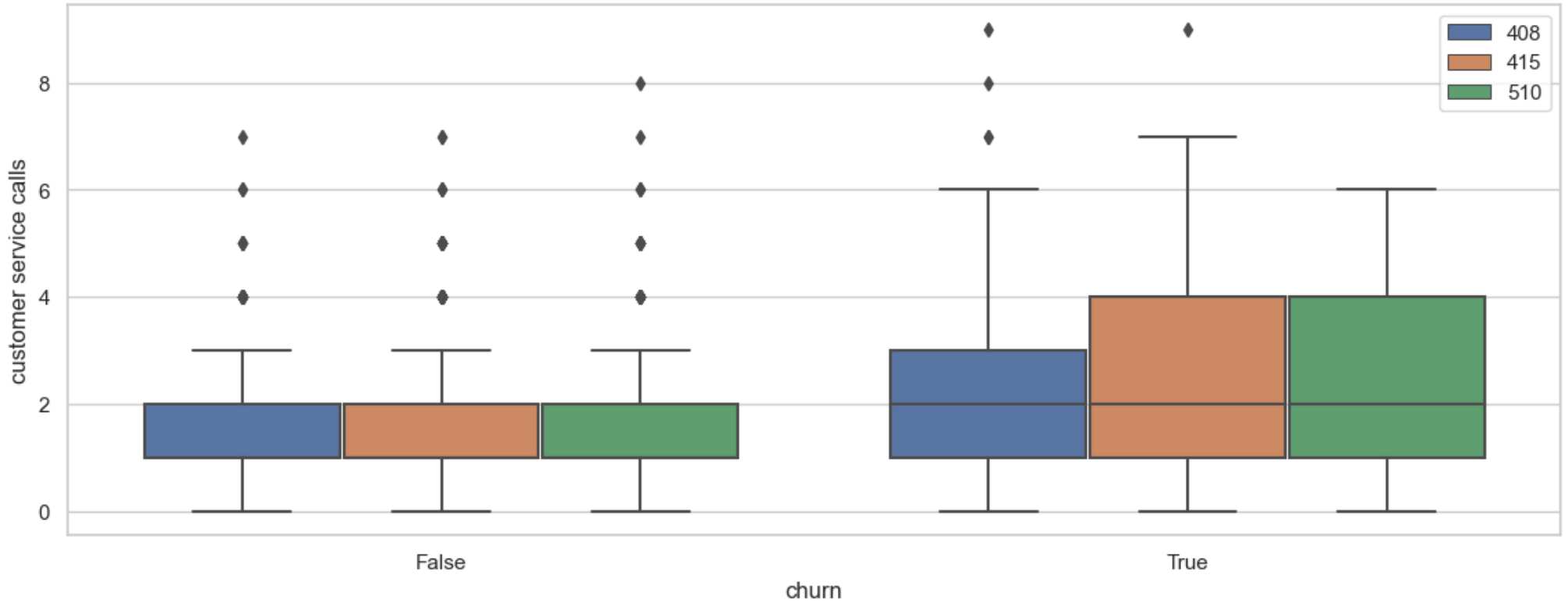
AVERAGE CHARGES BY TYPE AND CHURN STATUS



CUSTOMER SERVICE CALLS BY CHURN STATUS



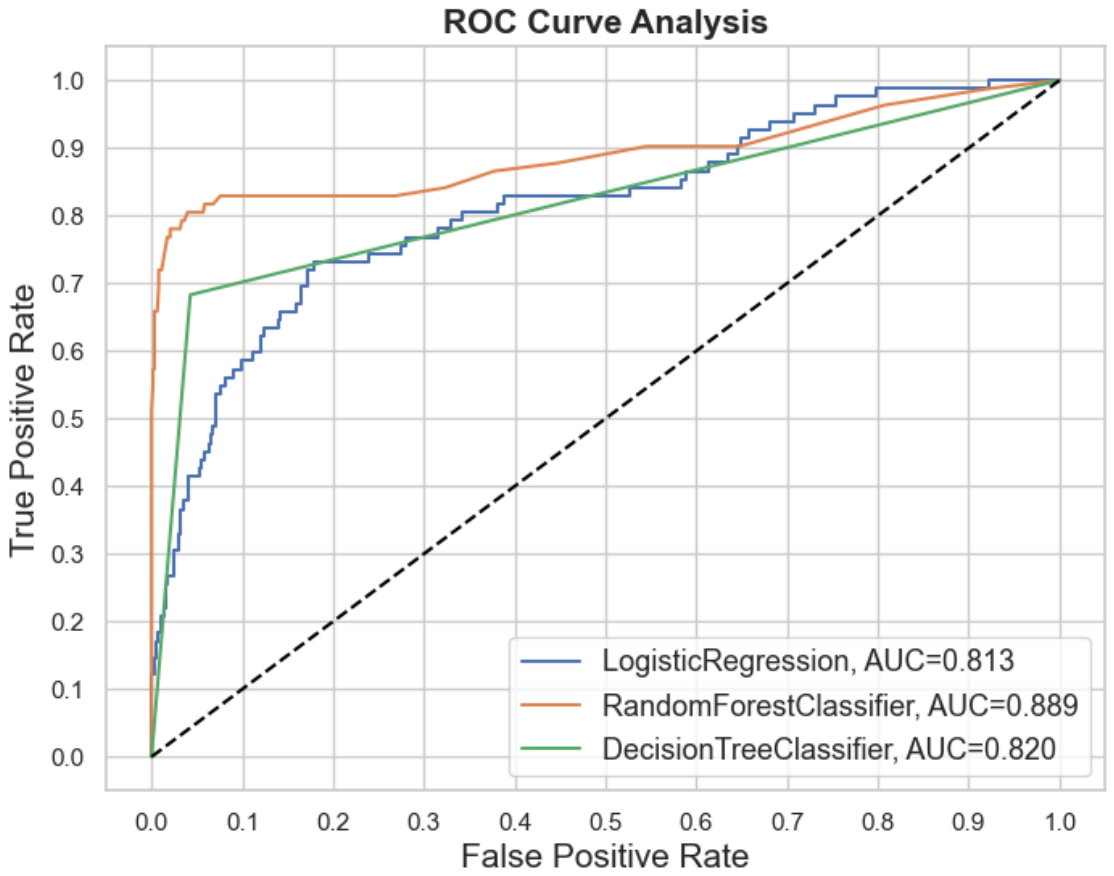
CHURN INSTANCE BY AREA CODE



MODELS INCORPORATED

Models	Accuracy Score	F1 Score	Recall Score	Precision
Logistic Regression	0.89	0.21	0.12	1.00
Random Forest Classifier	0.95	0.71	0.57	0.96
Decision Tree	0.93	0.69	0.63	0.75

- After modelling, Random Forest Classifier performed better with an accuracy score of 95% and Precision score of 96%.



FINDINGS

01

High day and evening charges, along with frequent customer service calls, are key drivers of churn.

02

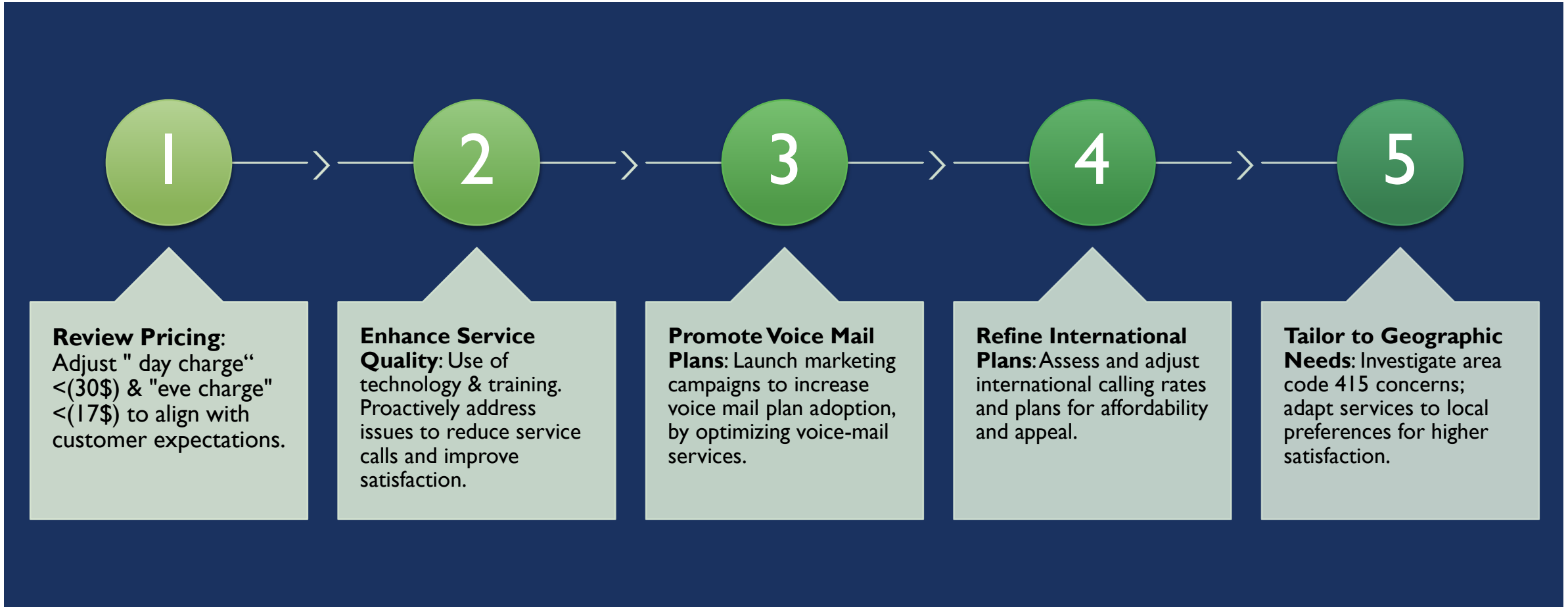
Urban customers prioritize convenience and service variety, whereas rural customers value personalized service and affordability.

03

Direct links between specific contracts/plans and churn are not identified, but related charges and service quality significantly influence churn.

04

The Random Forest Classifier is the most effective predictive model, with a 96.1% precision rate in identifying potential churn.



RECOMMENDATIONS

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THANK YOU