

Telecom Churn Prediction

Capstone Project

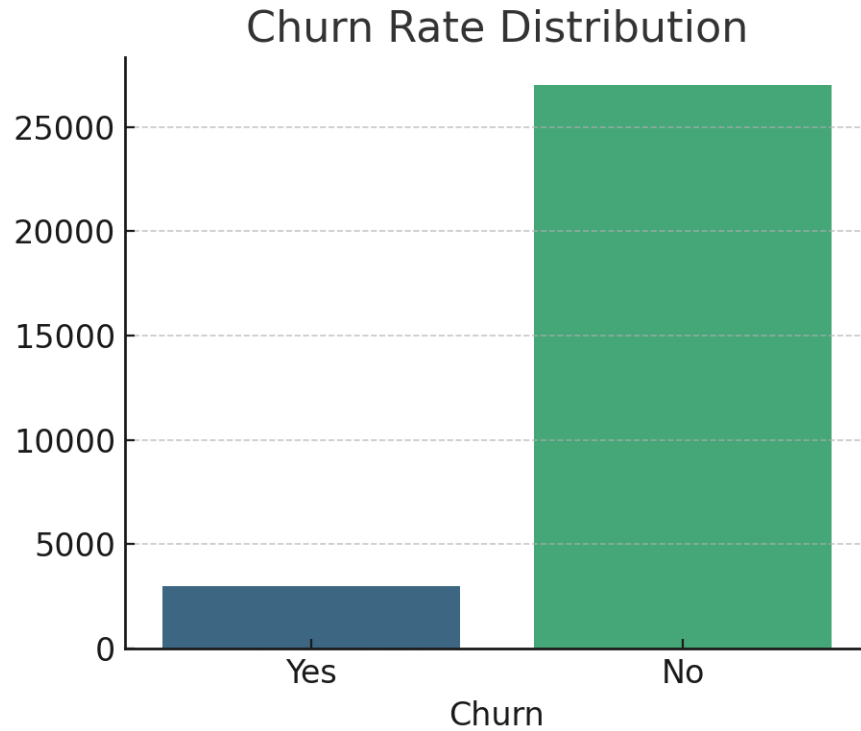
Business Problem & Objective

- In the competitive telecom industry, churn rates reach 15–25% annually. Retaining high-value customers is critical since acquiring new ones costs 5–10x more.
- Objective: Predict churn among high-value prepaid customers and identify key drivers, enabling targeted retention strategies.

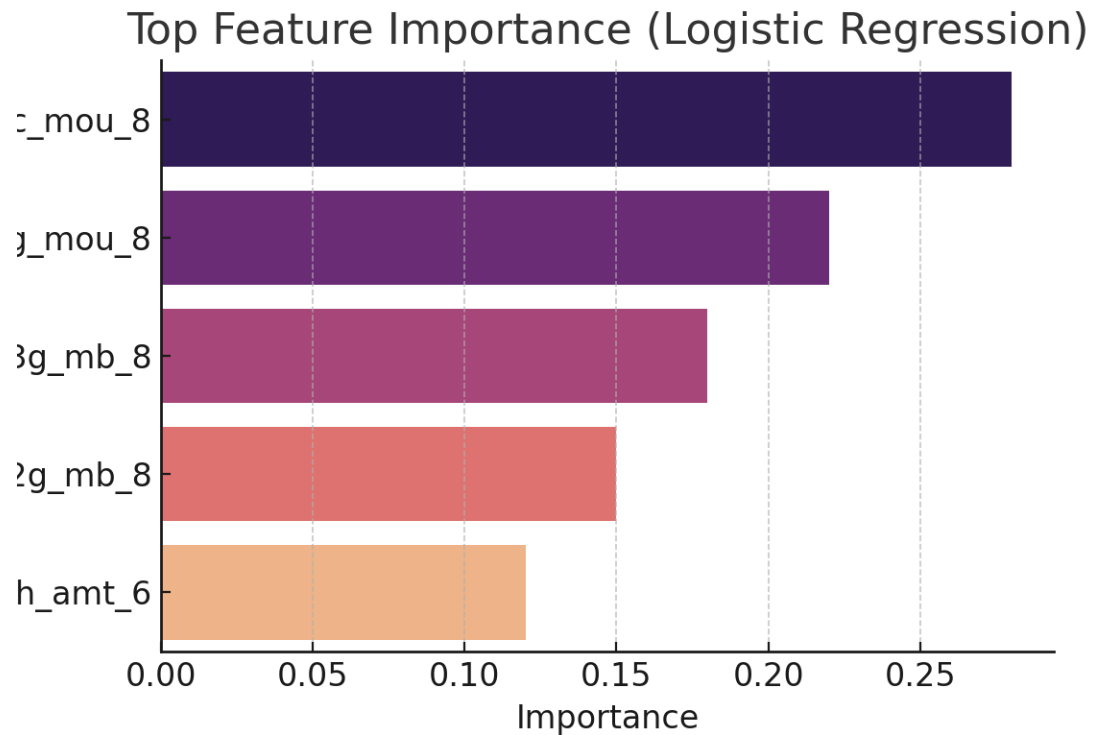
Approach

- 1. Data Preparation:
 - Filtered high-value customers (top 30% by recharge amount)
 - Defined churn using zero usage in month 9 (calls & data)
 - Removed churn phase features
- 2. Exploratory Data Analysis (EDA):
 - Univariate and bivariate analysis
 - Identified churn rate and key patterns
- 3. Modeling:
 - Logistic Regression with multicollinearity handling
 - Feature importance analysis
- 4. Insights & Recommendations

Churn Rate Distribution



Top Predictors of Churn



Conclusion & Recommendations

- Churn rate among high-value customers is significant, requiring proactive retention.
- Key churn predictors: drop in usage (IC/OG minutes, 2G/3G data), lower recharge amounts.
- Recommendations:
 - Target at-risk customers in 'action' phase with offers and improved service.
 - Monitor usage patterns for early warning.
 - Invest in customer experience to reduce churn.