

Customer Churn

*Prediction
Using Machine Learning*

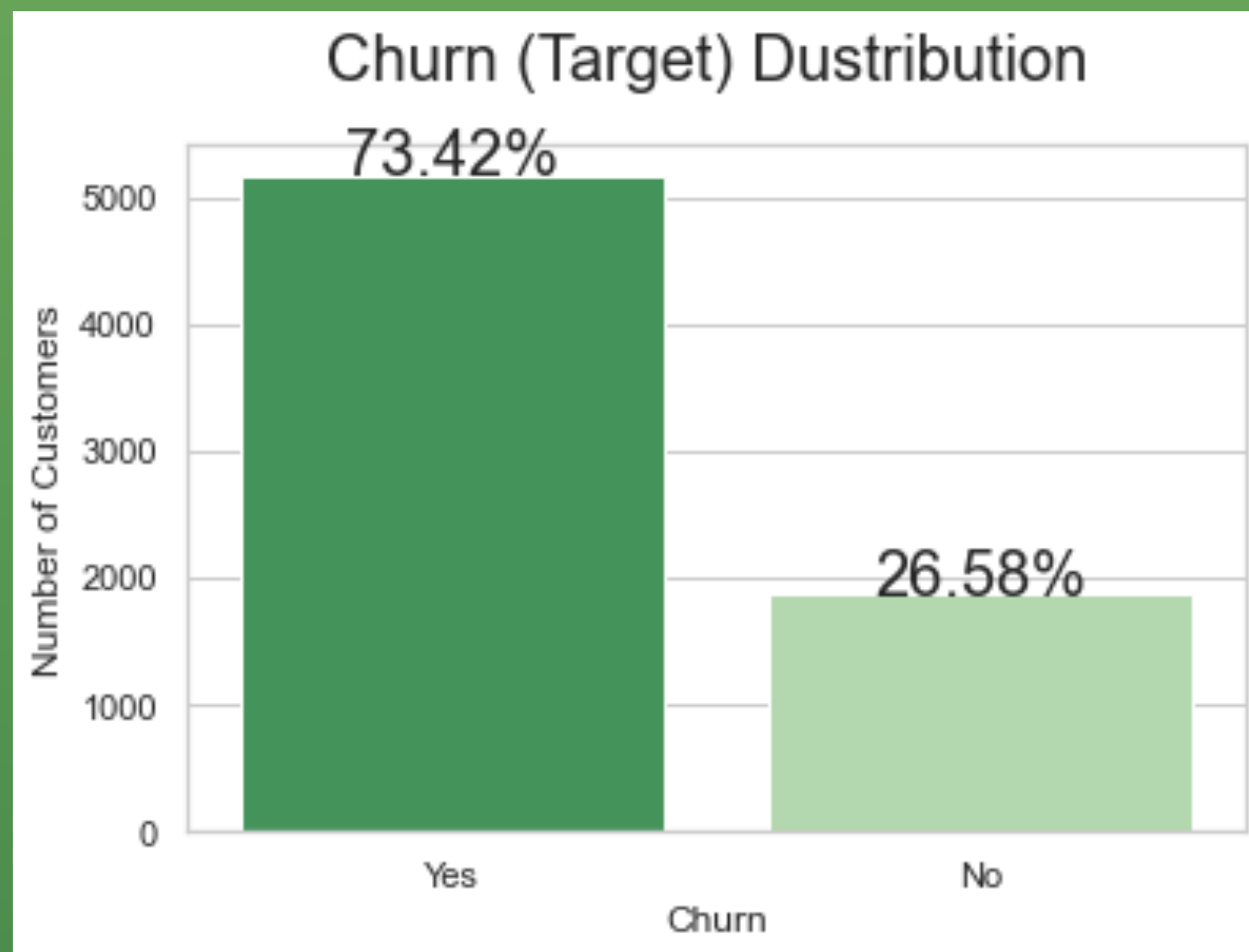
by Galdina M.

CUSTOMER
CHURN CAN KILL A
BUSINESS

Problem Statement:

*Customers churn affects the
length of service and the
future revenue of the
company.*

LOSS
CUSTOMERS –
LOSS
MONEY



LONG
COOPERATION –
STABLE
INCOME



Business Goal:

Reducing and prevent customers churn:

- *get to know telecom customers better*
- *target clients*
- *special deals before they even thought of leaving*



Methodology:

PREDICT
CUSTOMER CHURN
USING DATA

DATA PREPROCESSING (OBTAIN & SCRUB)

EDA & FEATURE ENGINEERING

ALGORITHM SELECTION

TRAINING

EVALUATE

PREVENT
CUSTOMER CHURN
USING DATA



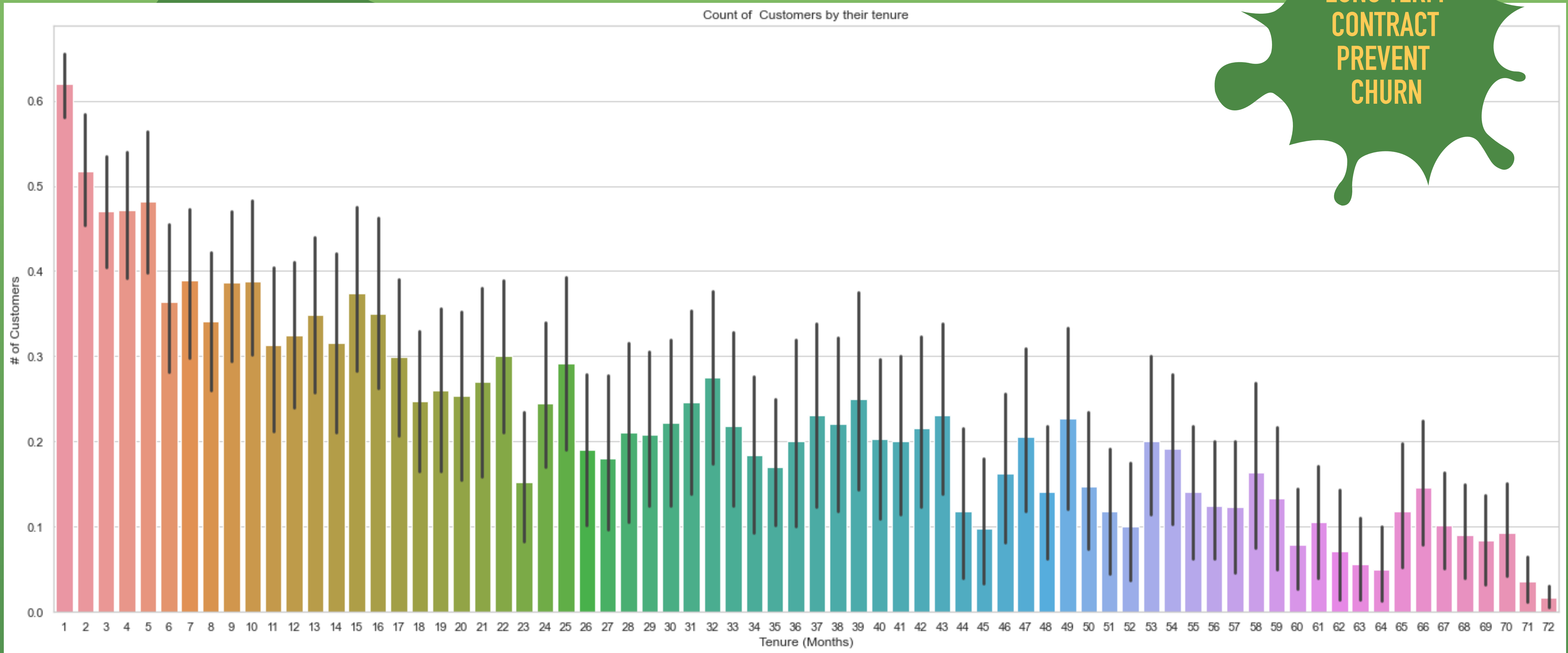


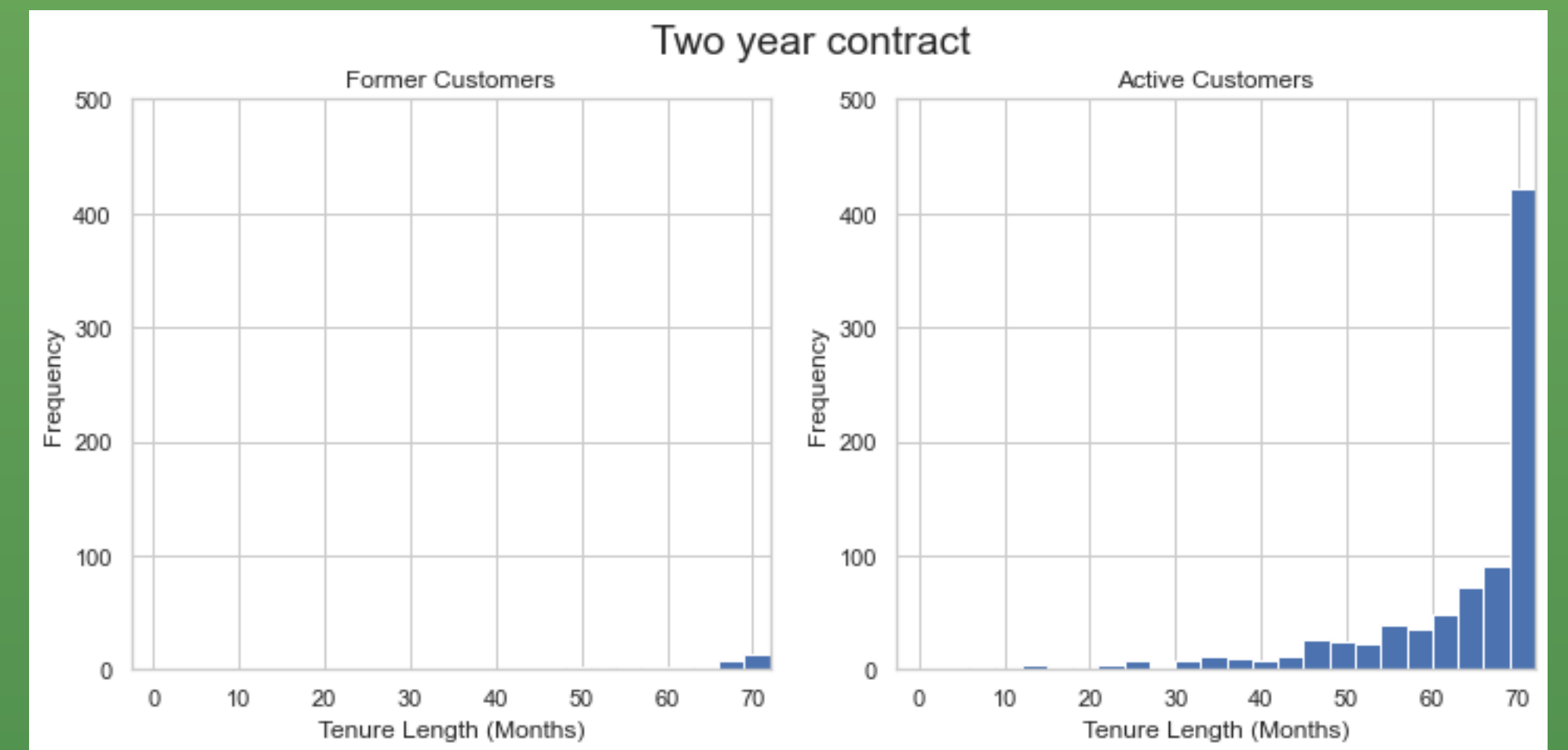
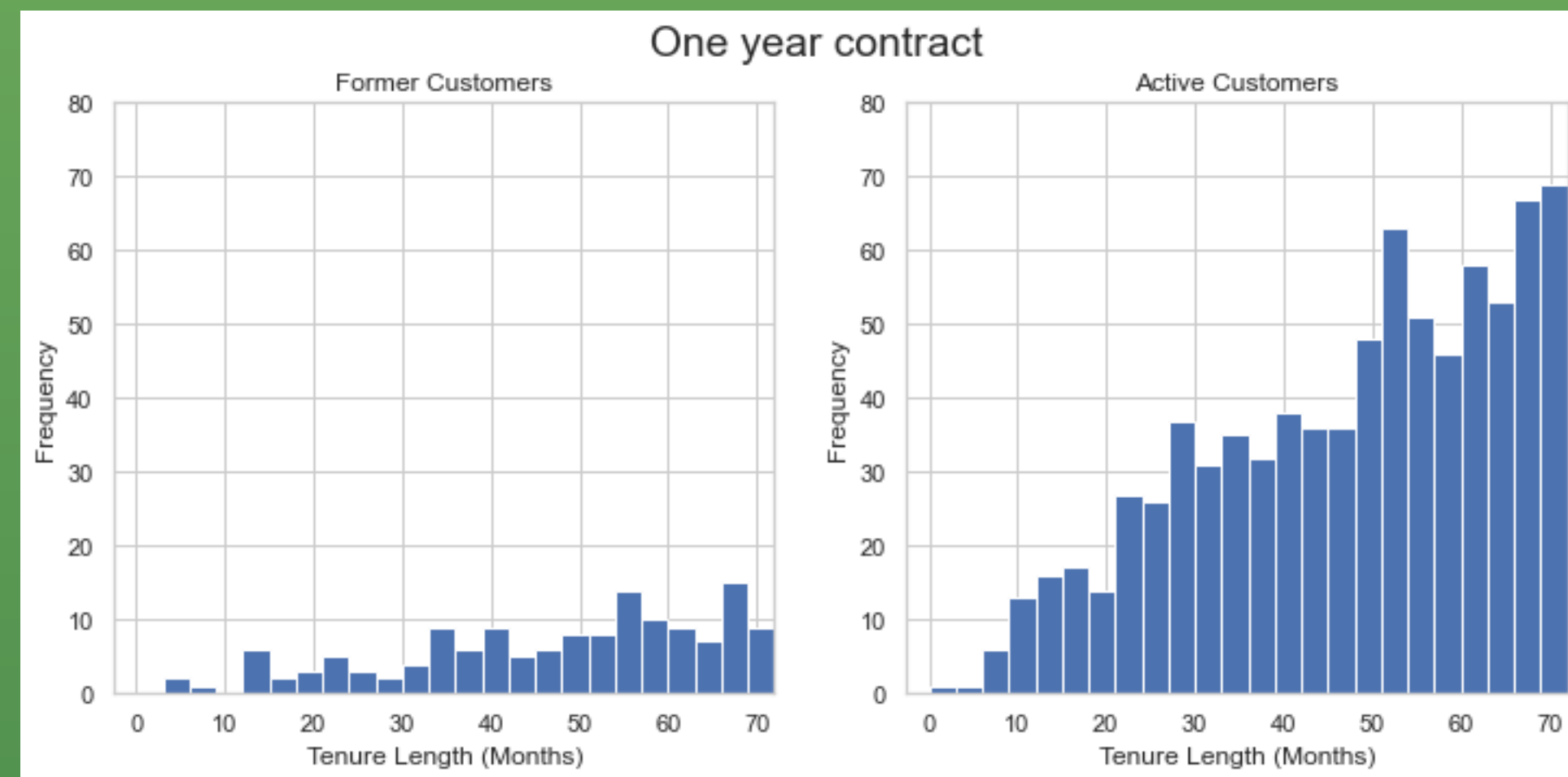
INFORMATION FOR RESEARCH

- ✓ **Services that each customer has signed up for (internet, phone, TV)**
- ✓ **Customer account information (tenure, contract, monthly and total payment method)**
- ✓ **Demographic info about customers (partners and dependents)**

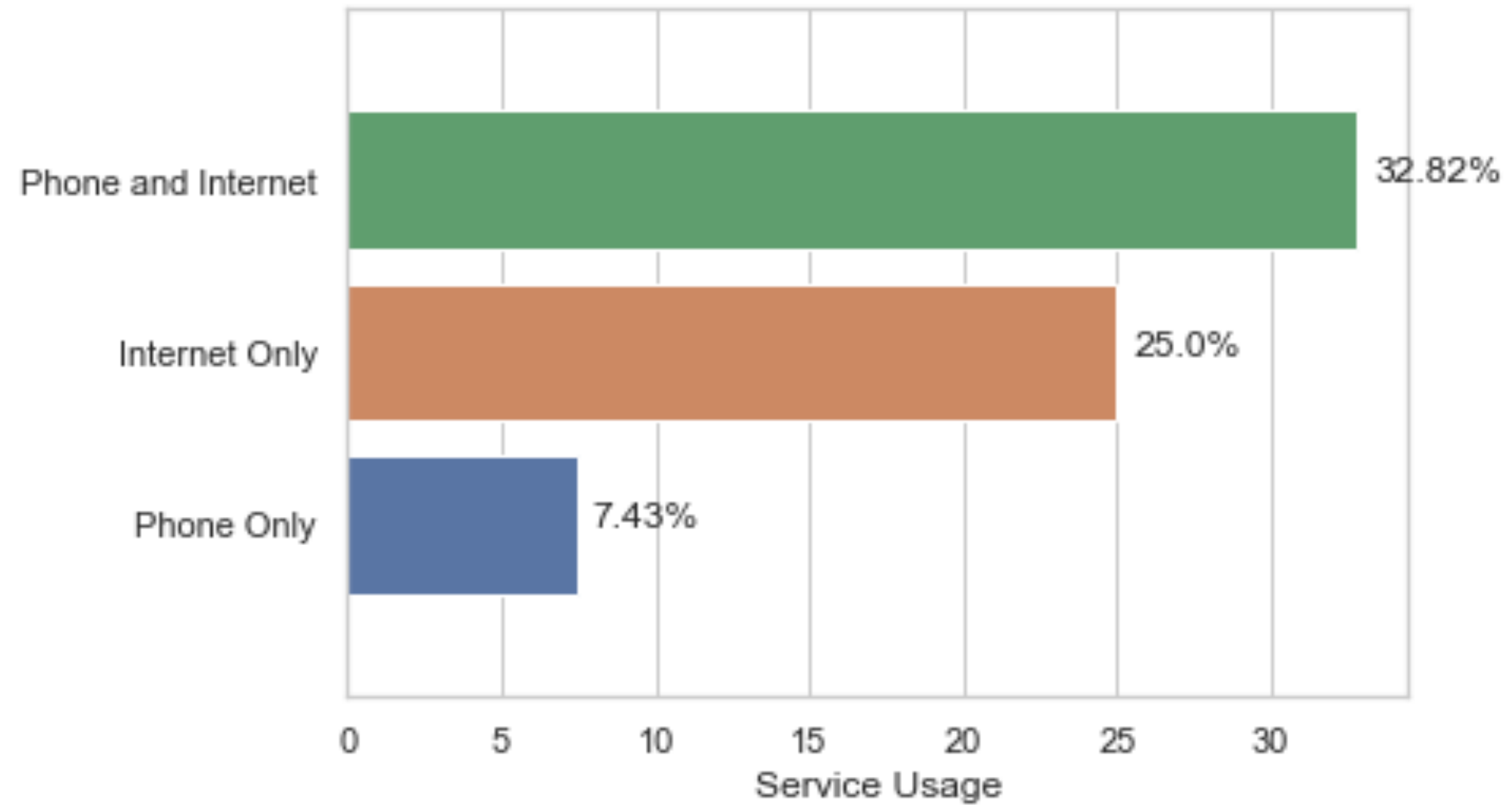


LONG TERM
CONTRACT
PREVENT
CHURN

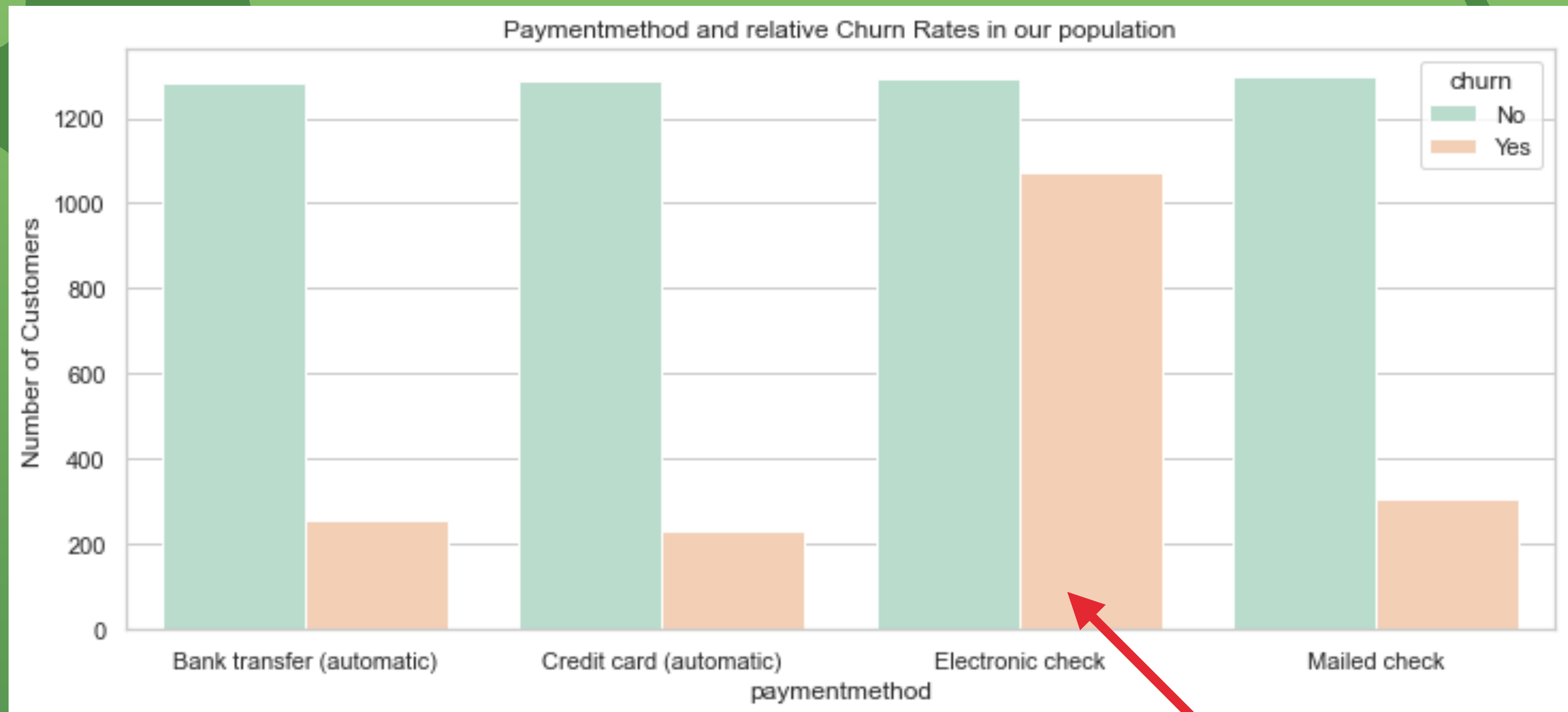




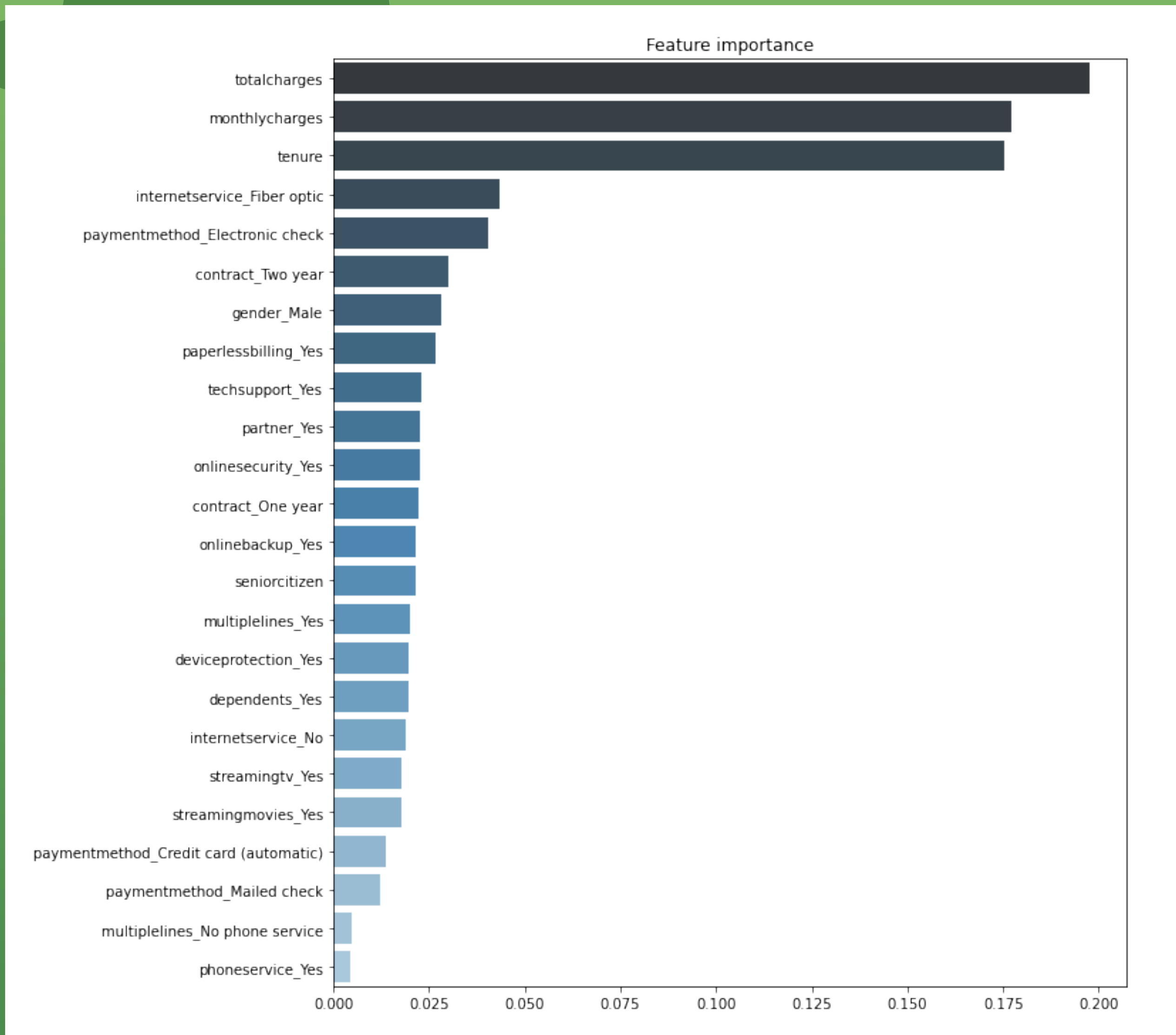
Churn-Rate by Services







Most important factors in customer churn



Decrease Churn

✓ *Tenure*

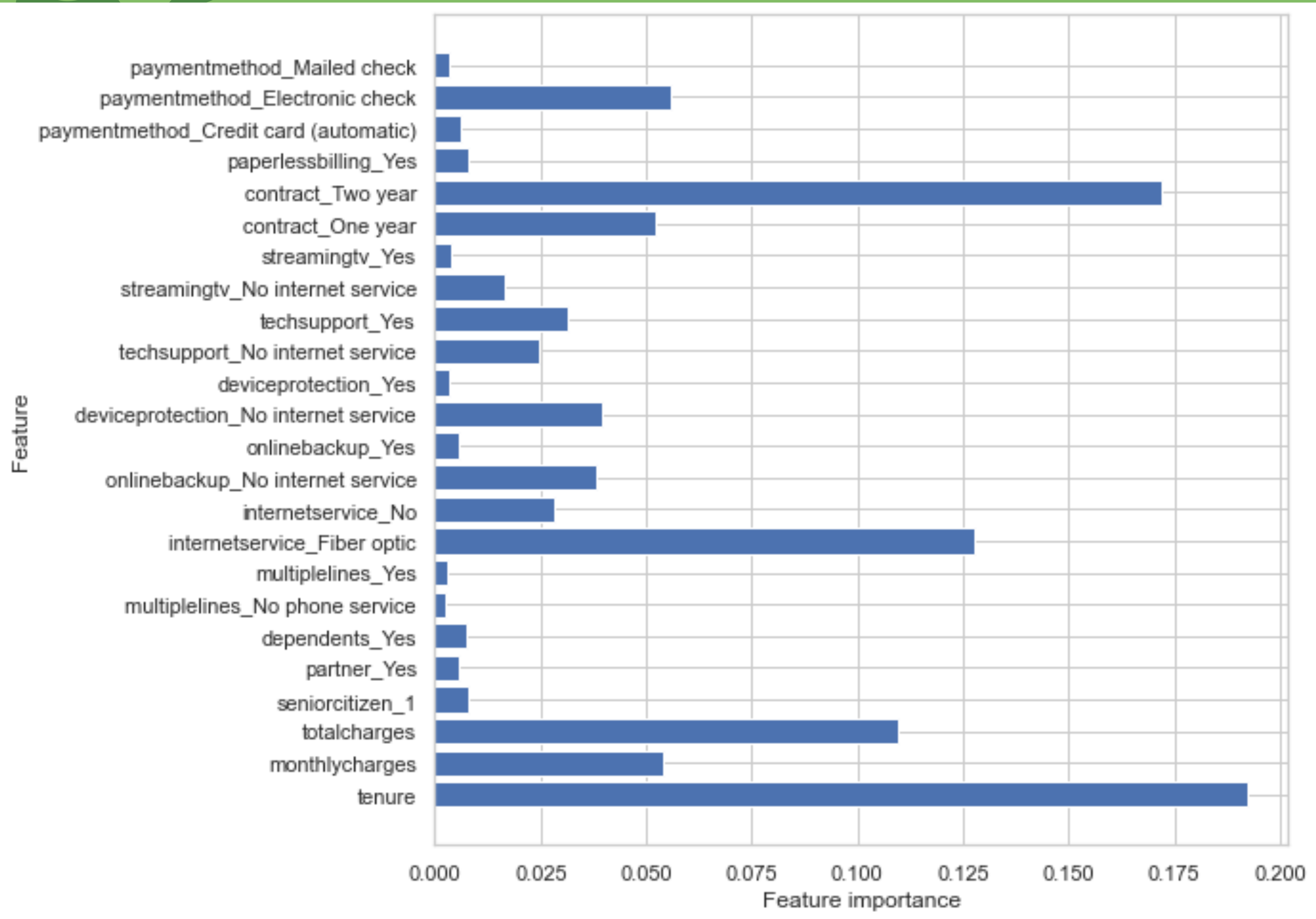
✓ *One year contract*

✓ *Two year contract*

Increase Churn

✓ *Fiber optic internet service*

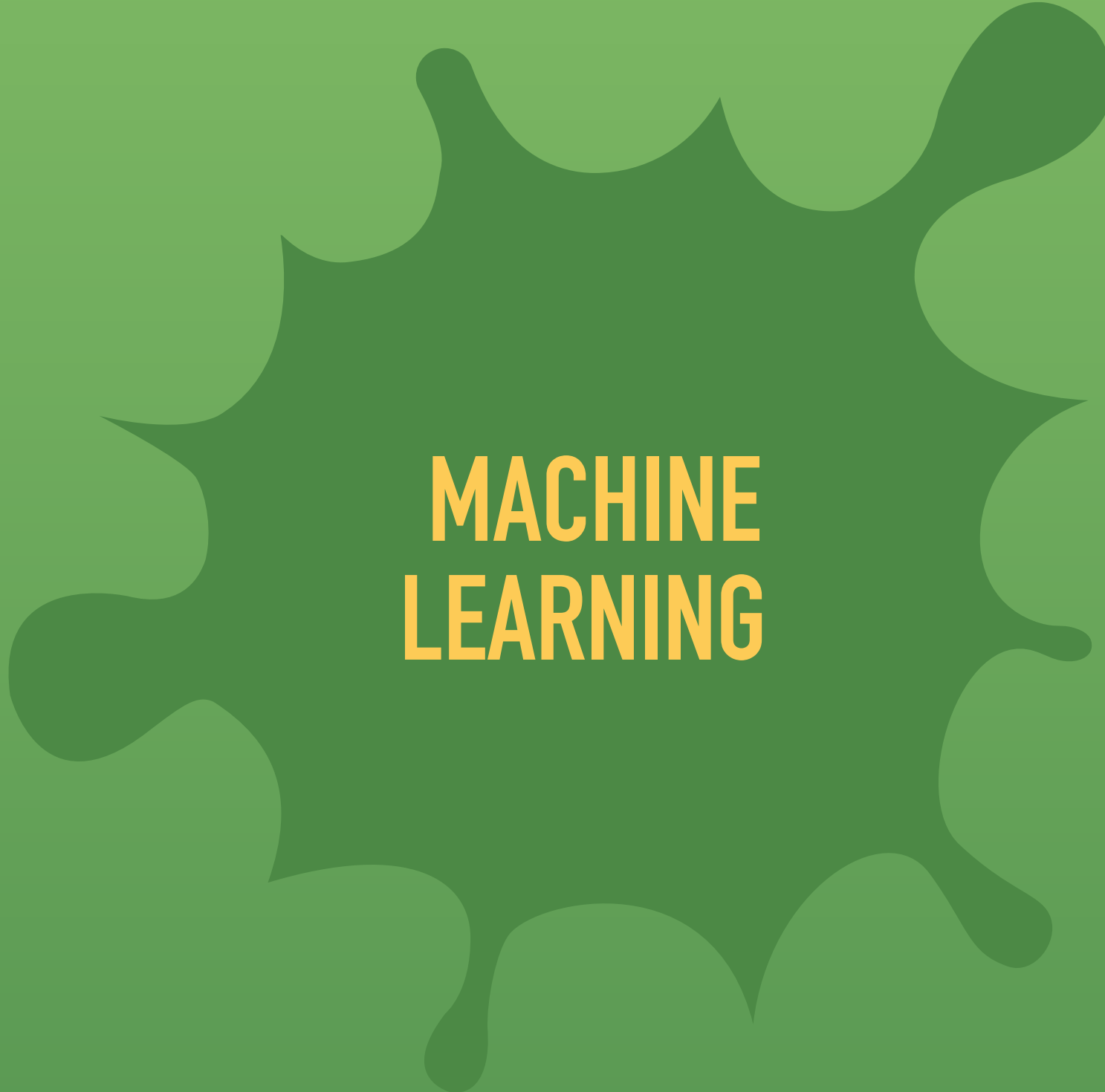




Question for explore

1. Which features decrease churn rate and which increase churn rate?
2. Is it predictive modeling helpful for telco companies? Can it handle the problem of customer churn?
3. What is companies needed to do to retain churning customers?





MACHINE LEARNING

- ✓ predict customer churn with 78% accuracy
- ✓ helps to find customers with high risk to churn



What Makes your Churner Different?

- ✓ *create long term contracts*
- ✓ *send personalized emails with variants of payments methods*
- ✓ *collect feedback about online services*

RECOMMENDATIONS



Future Work:

COLLECT MORE INFORMATION:

- ▶ DATA USAGE INFORMATION
- ▶ MAP POSITION
- ▶ COMPETITORS' OFFERS

FEATURE ENGINEERING

- ▶ THINK LIKE A CUSTOMER
- ▶ THINK LIKE A MANAGER

TRY NEW

- ▶ USE MORE MODELS
- ▶ START NEURAL NETWORK



THANK YOU!