

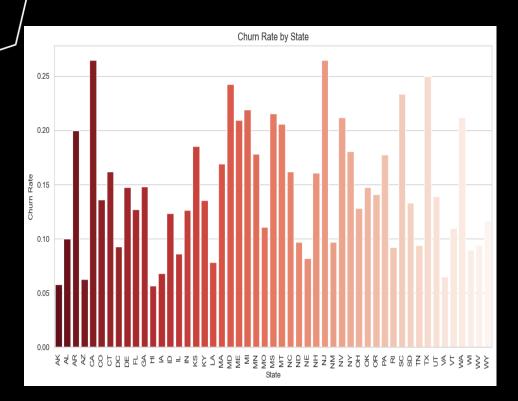
## INTRODUCTION AND BUSINESS PROBLEM.

Customer churn is a big problem for telecom companies because it costs more to get new customers than to keep existing ones.

The goal of this analysis is to find out which customers are likely to leave so that actions can be taken to keep them.



#### CHURN RATE BY STATE



- New Jersey (NJ) and California (CA) have the highest churn rate (26.47%)
- These states are experiencing the highest customer loss.
- Possible reasons: competition, poor service, high pricing, or customer dissatisfaction.
- Texas (TX), Maryland (MD), and South Carolina (SC) also show high churn (23-25%)
- These states need customer retention strategies to reduce churn.
- Michigan (MI), Mississippi (MS), Nevada (NV),
  Washington (WA), and Maine (ME) have churn rates around 21%
  - These states are still above average in churn but not as critical as NJ and CA.

## CUSTOMER SERVICE CALLS VS CHURN



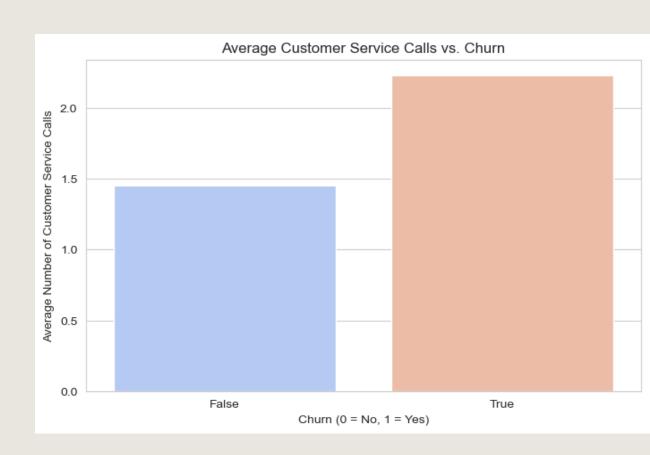
1. The bar for True(Churned Customers) is higher than the bar for False (Non-Churned Customers).

This means, on average, customers who churn make more customer service calls than those who stay.

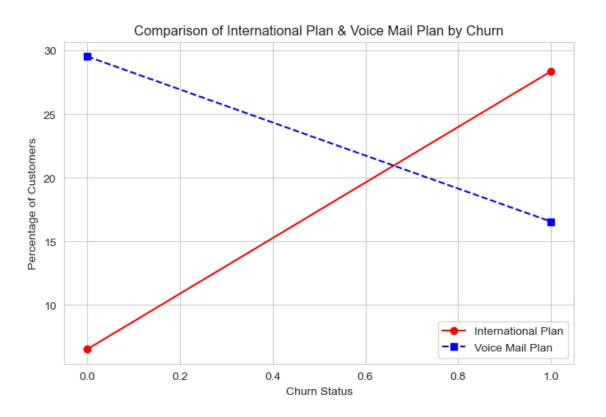
#### 2. Possible Dissatisfaction Indicator is:

Churned customers make around 2+ service calls, whereas non-churned customers average around 1.5 calls.

This suggests that higher service call frequency indicate customer dissatisfaction, leading to churn.

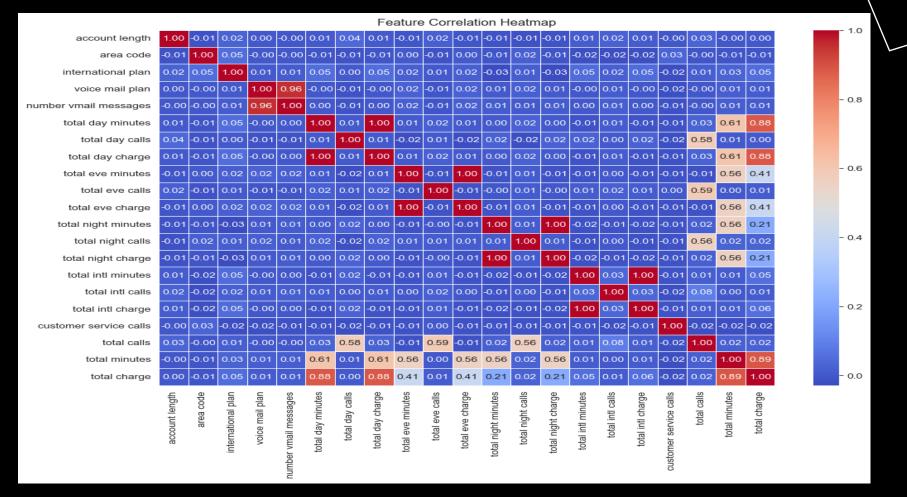


#### **CUSTOMER PLAN VS. CHURN**



- The red line shows that customers with an international plan have a significantly higher churn rate. The percentage of customers with an international plan who churn is much higher than those who don't churn
- The blue line indicates that customers with a voice mail plan have a lower churn rate. The percentage of customers with a voice mail plan who churn is lower

### VARIABLE RELATION

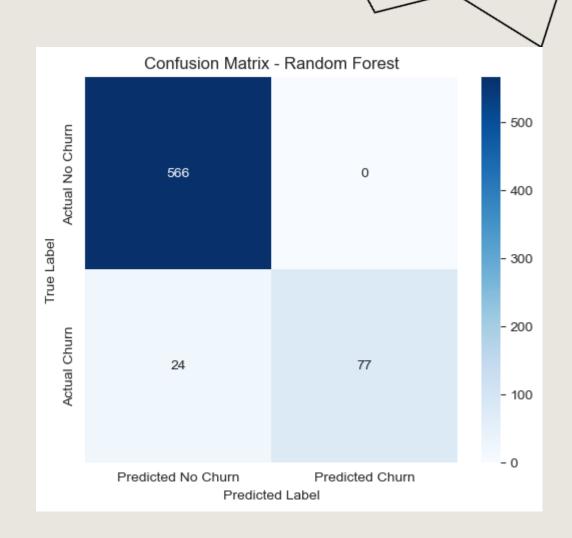


Customers with higher total usage tend to pay more. Therefore, customers with high total minutes and high total charges are more valuable but might also be at risk of churn if they feel overcharged. We can introduce discount plans or loyalty rewards for them.

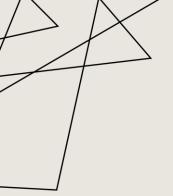
#### **BUSINESS IMPACT – USING MODEL INSIGHTS**

#### Using Model Predictions we can:

- Identify high-risk customers early and offer personalized incentives.
- Reduce false churn predictions to avoid unnecessary customer outreach.
- Enhance customer experience by proactively addressing churn reasons.







#### **KEY FINDINGS & INSIGHTS**

- Churn is higher among customers with an international plan.
- High total minutes and total charges are strong indicators of churn.
- On average, customers who churn make more customer service calls than those who stay. Churned customers make around 2+ service calls, whereas non-churned customers average around 1.5 calls. This suggests that higher service call frequency might indicate customer dissatisfaction, leading to churn.

#### **BUSINESS RECOMMENDATIONS**

- Improve international plan offerings to reduce churn among high-risk customers.
- Promote voice mail plans as a retention strategy.
- Focus retention efforts on customers with frequent customer service calls.
- Customers who call customer service frequently should be monitored as potential churn risks. A high number of calls could indicate unresolved issues—these customers might leave if their problems are not addressed properly.





# THANK YOU

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