

# Predicting Customer Retention for Syriatel



Leveraging Data to Reduce  
Churn

BY  
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# Project Overview

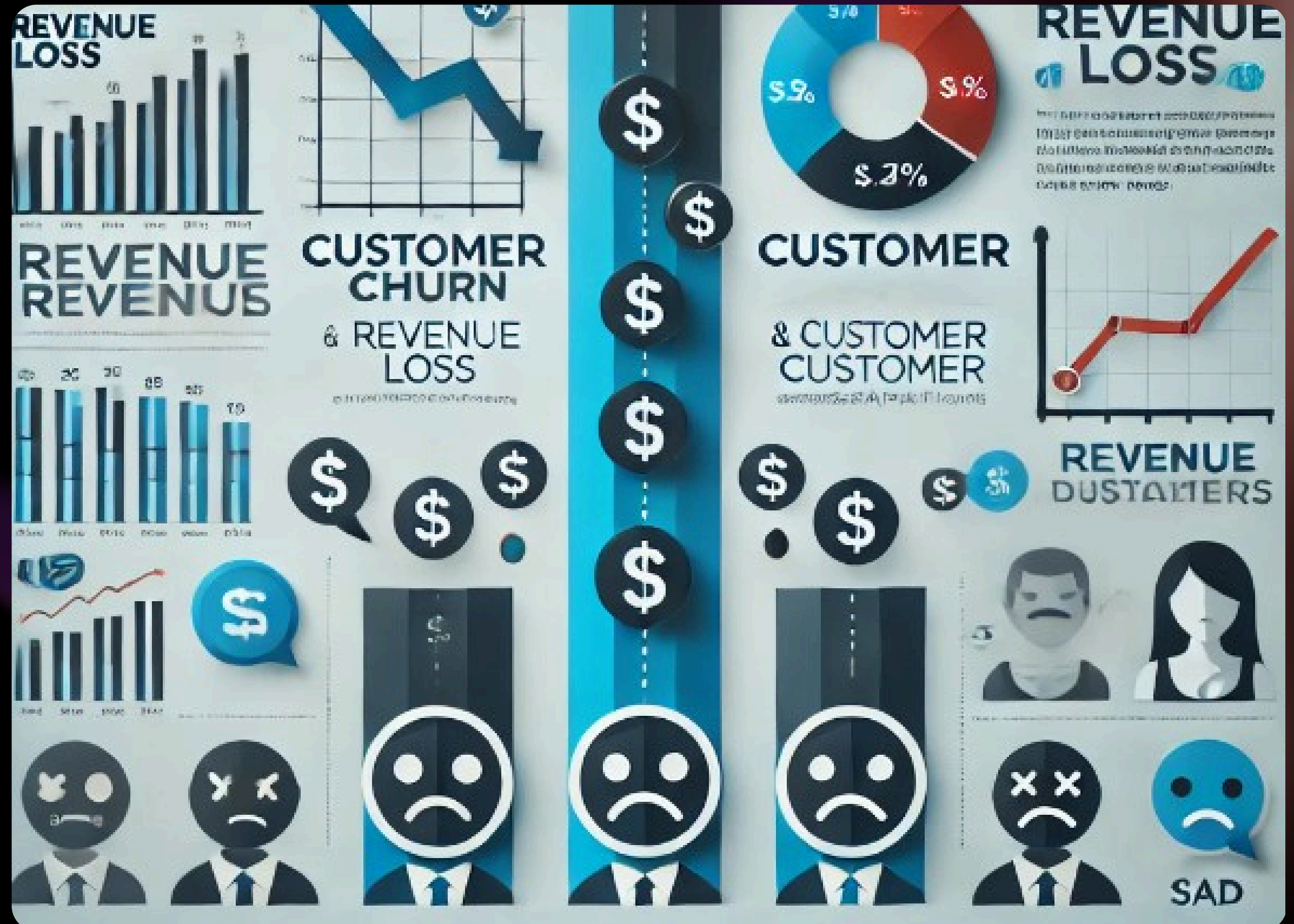
Syriatel is facing a high churn rate, leading to revenue loss. Our goal is to identify the key factors driving customer churn and predict which customers are likely to leave.





# Why Customer Churn Matters

Churn  
negatively  
impacts  
profitability  
and growth.



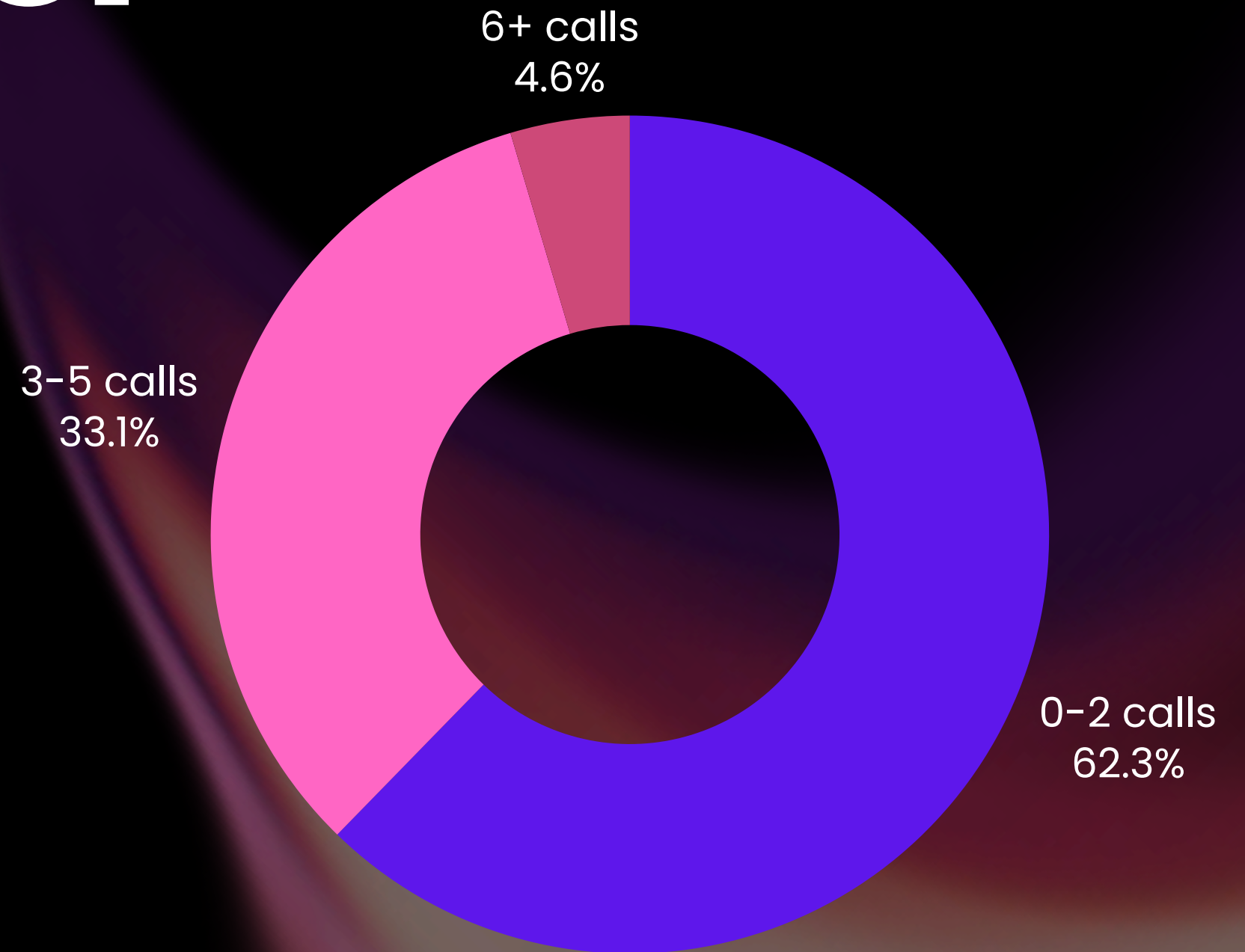
# Data at a Glance

SyriaTel is experiencing a significant churn rate, affecting profitability. By analyzing this data, we can identify patterns that lead to churn and target interventions effectively.

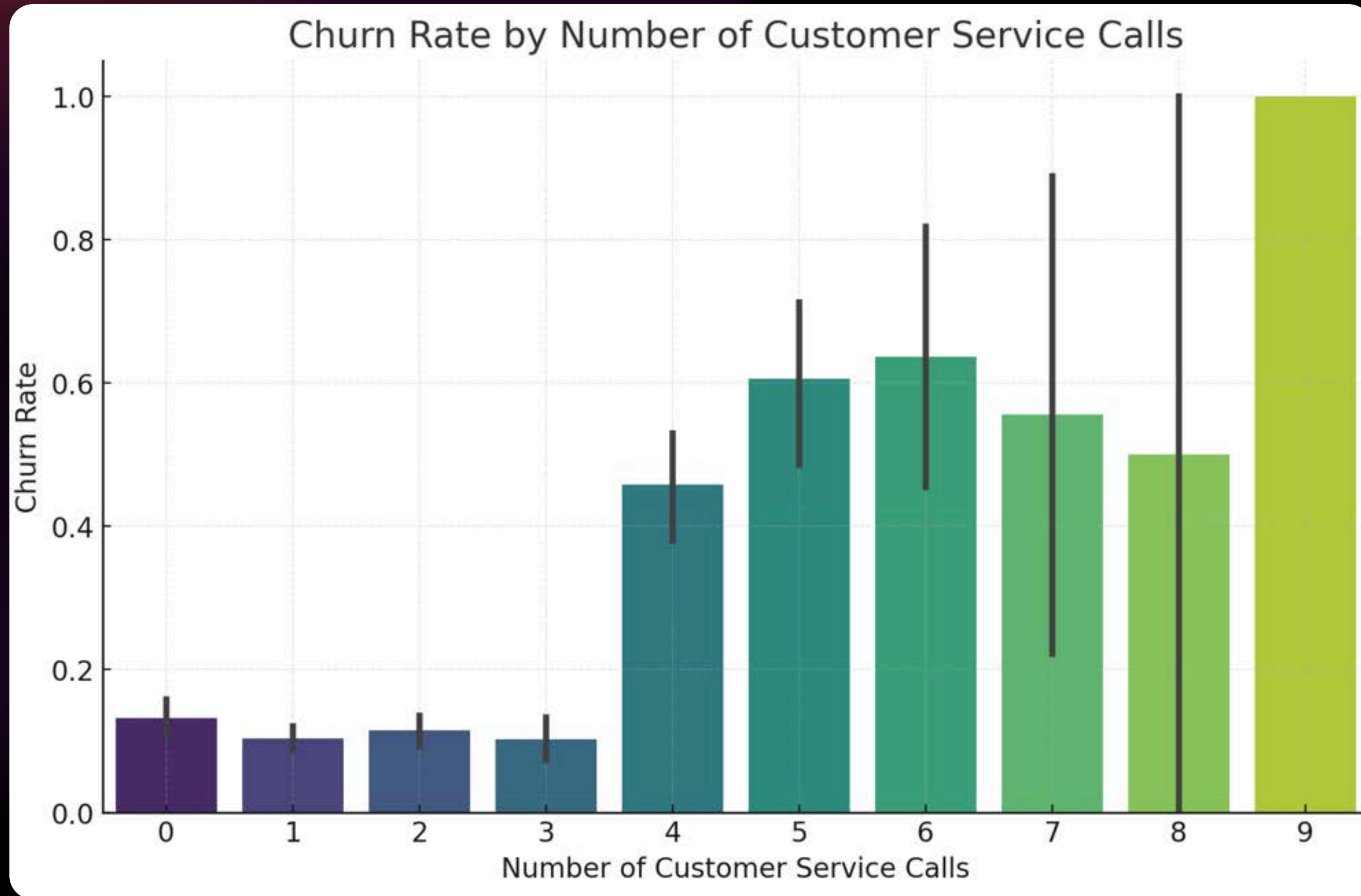
Feature	Value
Total Customers	3,333
Churn Rate	14.5%
Average Account Length	101.2 days
International Plan (%)	25%
Customer Service Calls	2.2 calls

# Churn Distribution by Key Factor

- Customers with more than 5 customer service calls have a significantly higher churn rate.
- Total day minutes are higher on average among churned customers, indicating heavy usage might be linked to dissatisfaction.



# Key Insights from Data Analysis

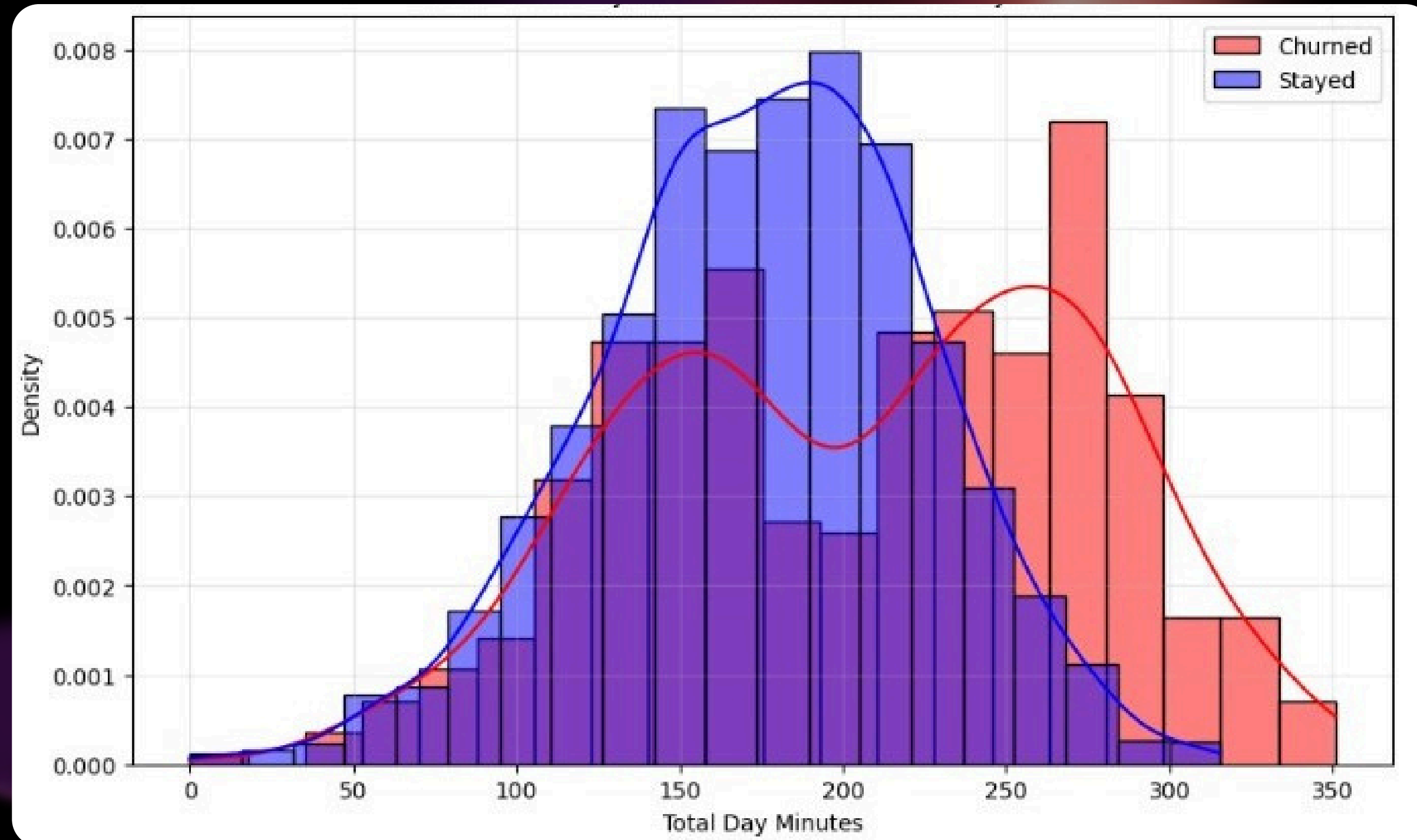


High churn is correlated with frequent customer service calls and low account length.



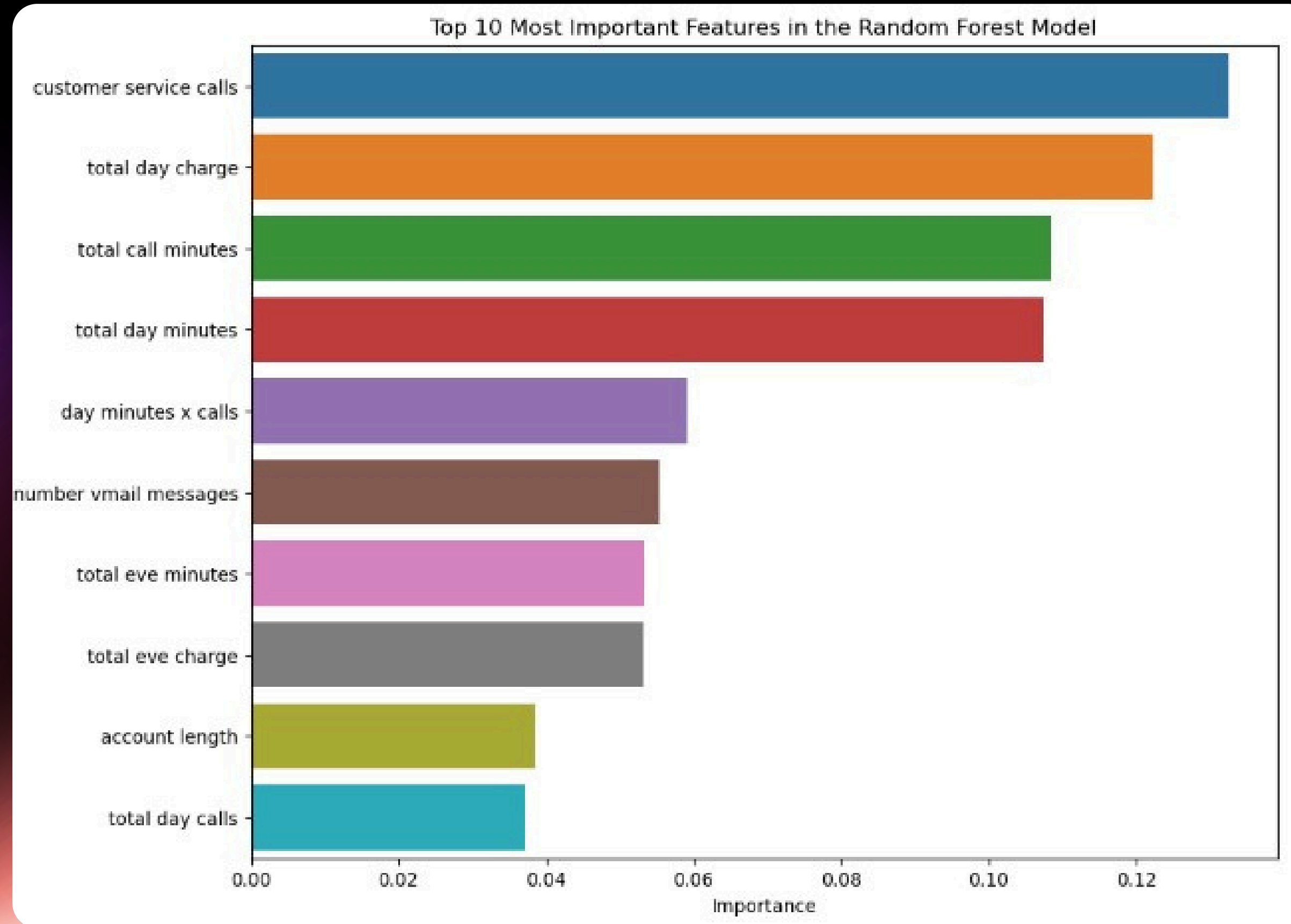
# Predicting Churn with Classification Models

Our model categorizes customers as likely to churn or stay based on key features.



# What Factors Influence Churn the Most?

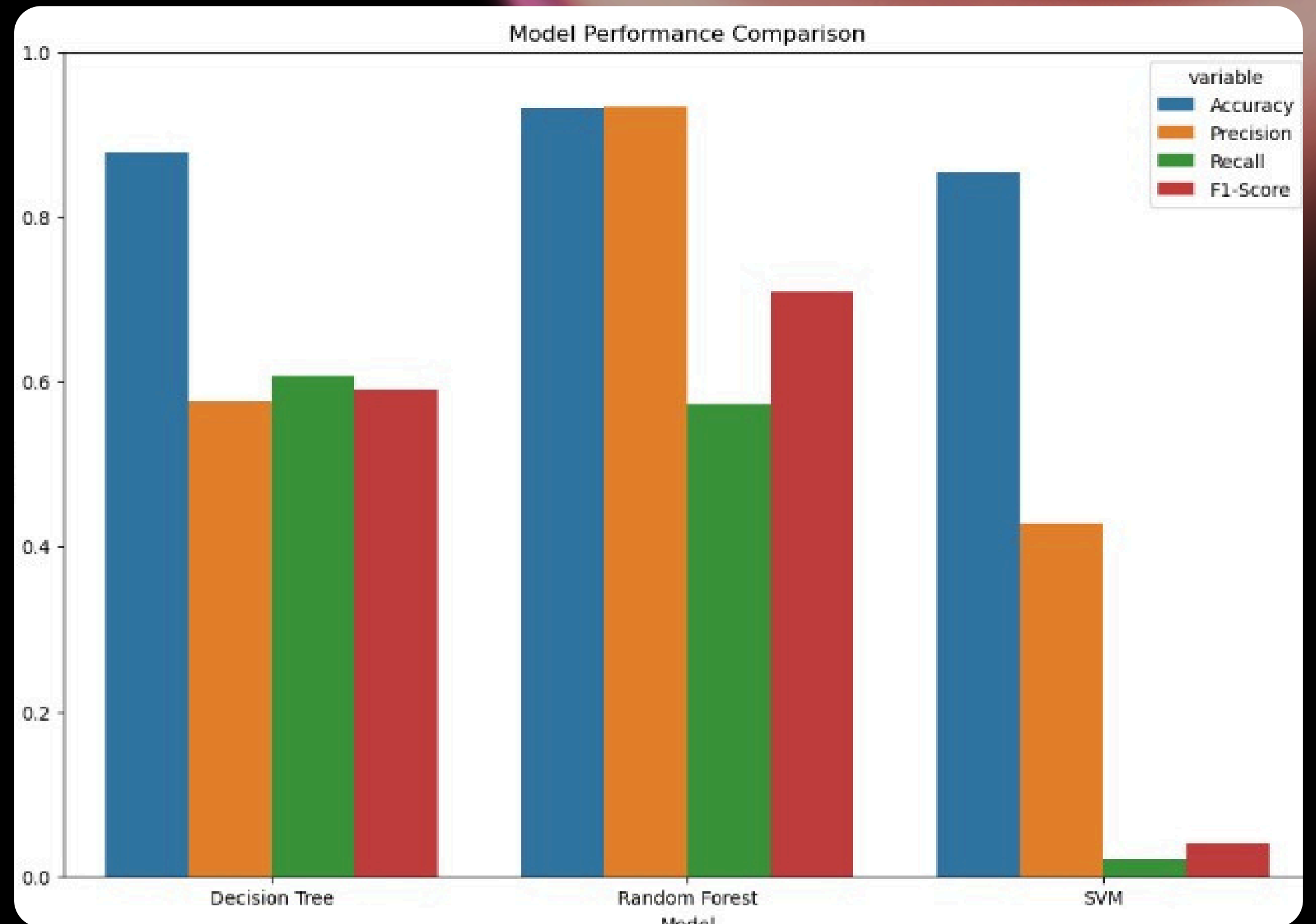
Frequent customer service calls and short account length are the most significant predictors of churn.





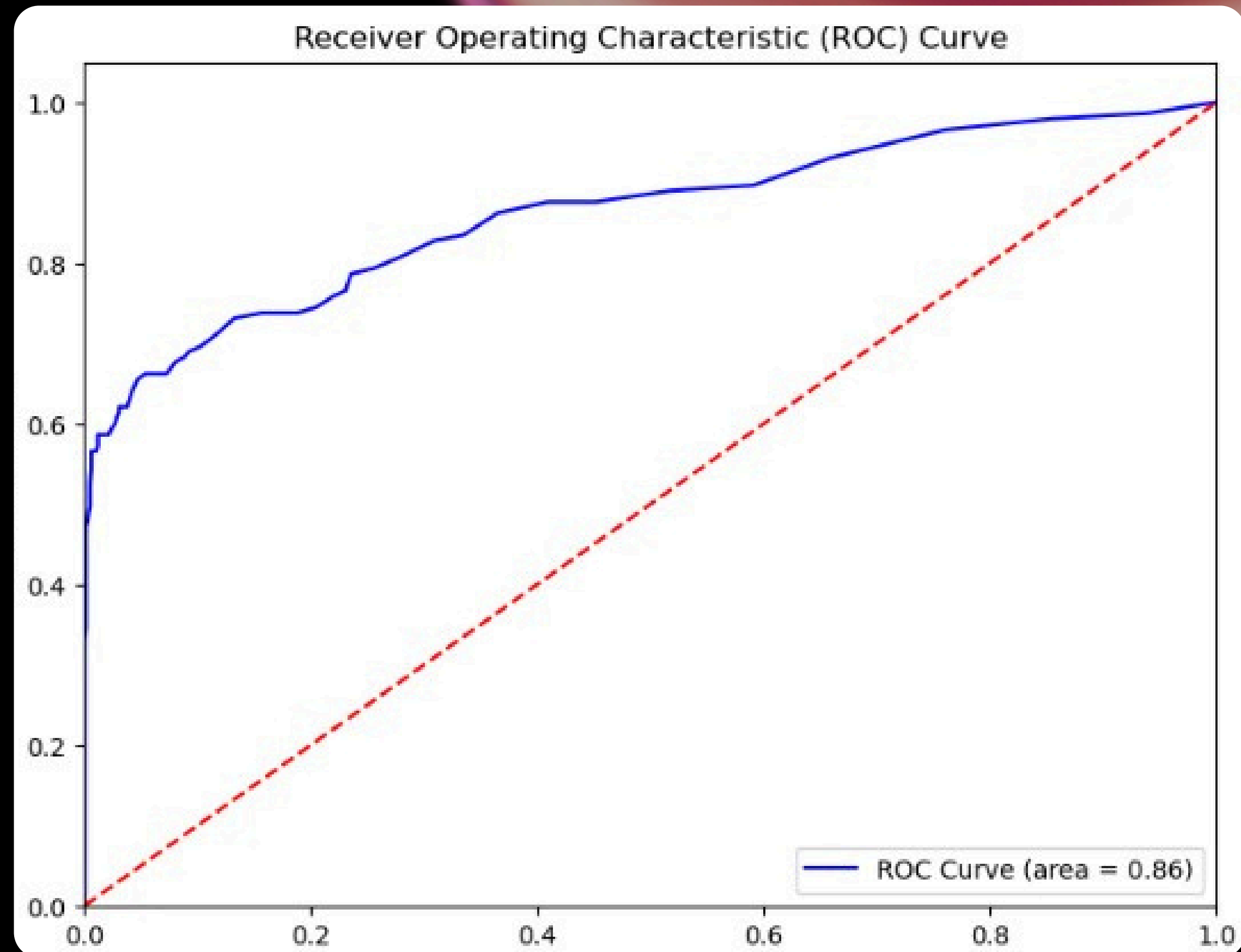
# How Accurate is the Model?

Our model achieved an accuracy of 86%. Precision, recall, and F1-score also indicated strong performance.



# How Well Did the Model Perform?

The Random Forest model is the most reliable choice. The model is good at identifying customers who might leave while keeping false positives low, making it a solid choice for predicting customer churn.



# Conclusion

- **Customers who frequently contact customer service are more likely to leave.**
- **People who use the service more are less likely to leave.**
- **Higher charges can push customers away.**
- **Customers with international plans are more likely to leave if they find better deals or no longer need the service.**
- **The Random Forest model outperformed other models.**



# Reducing Churn: Next Steps

- **Focus on resolving customer issues quickly and effectively to reduce churn.**
- **Encourage high usage by offering incentives or special offers .**
- **Consider adjusting pricing to remain competitive and retain price-sensitive customers.**
- **Tailor international plans and other services to match customer needs.**
- **Use the Random Forest model because it provides the best balance between accuracy and identifying potential churners**

# THANK YOU!!

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