

Customer Churn at SyriaTel

Business Presentation - 2024

Customer Churn at SyriaTel



INTRODUCTION.

churn refers to the loss of customers over a specific period. It's a crucial metric for businesses, especially those with subscription models, as it directly impacts their revenue and growth.

OVERVIEW.

Churn analysis identifies customers at risk of leaving, helping understand reasons for departure and develop retention strategies.





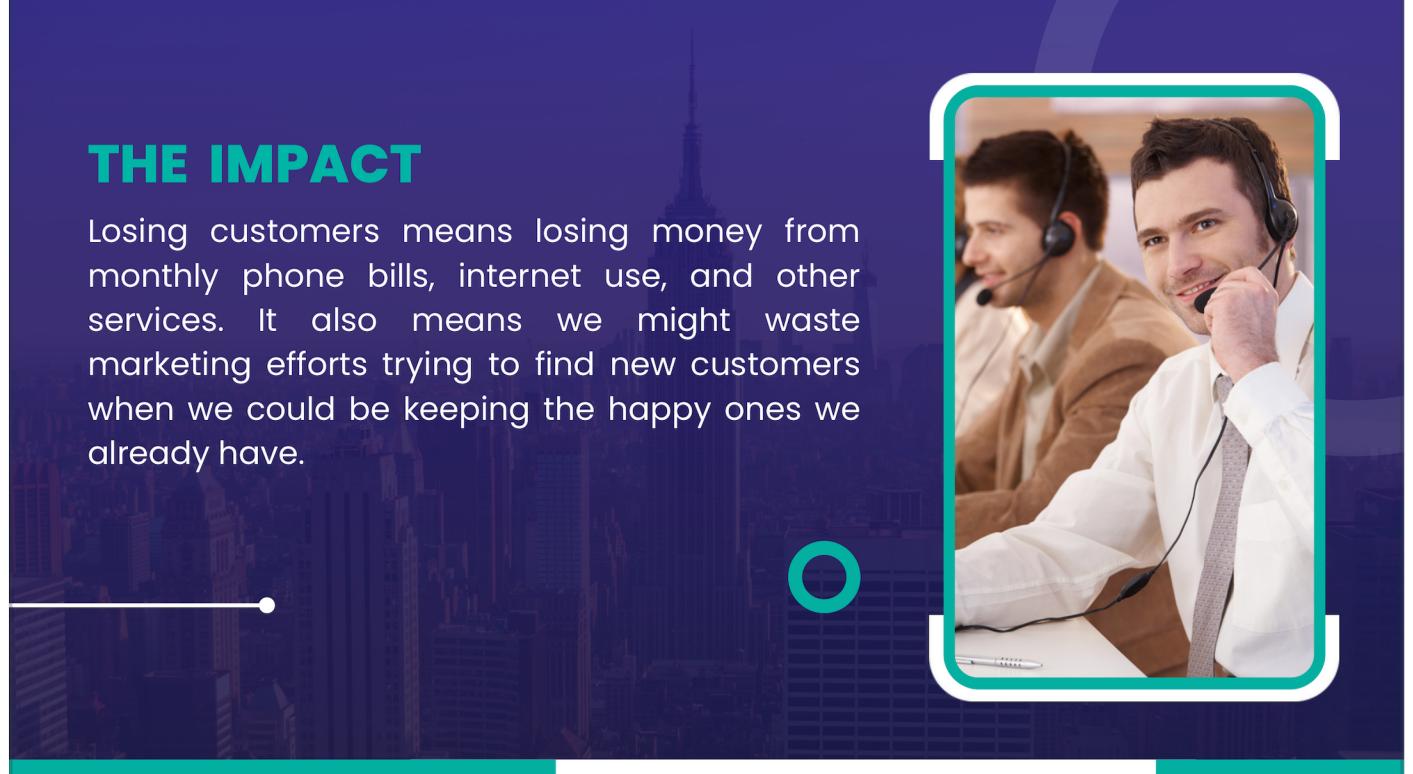
BUSINESS UNDERSTANDING. THE CHALLENGE:

At SyriaTel, we sometimes lose customers to other phone companies. This is called "churn," and it hurts our business because getting new customers is expensive.



THE IMPACT

Losing customers means losing money from monthly phone bills, internet use, and other services. It also means we might waste marketing efforts trying to find new customers when we could be keeping the happy ones we already have.



VISION



We want to be the best phone company in Syria, and that means keeping our customers happy.

MISSION



We aim to predict customer churn using advanced technology to offer special deals, address concerns, and tailor advertising to their needs.



MORE TO THE MISSION.

- Reach out to those customers with special offers and answer any questions they might have.
- Target our advertising to better suit their needs, so they know how much we value them

PROBLEM STATEMENT

Completely eliminating customer churn is unrealistic. Forcing customers to stay with the company is not a sustainable solution.

SOLUTION

SyriaTel proposes to develop a Machine Learning (ML) model to predict customer churn.

Predictive Model

- By analyzing customer data, the ML model will identify subscribers who are at a high risk of churning.

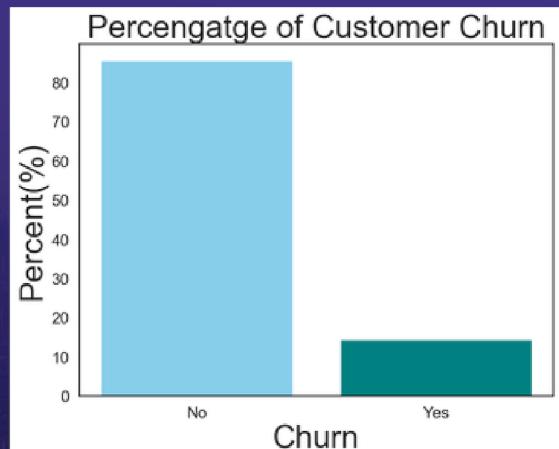
MAIN AIM OF THE PROJECT TO THE CUSTOMER CARE AND MARKETING TEAM

Targeted Marketing.

Marketing efforts can be focused on retaining at-risk customers with targeted campaigns that address their specific needs and preferences. This improves the efficiency and effectiveness of marketing spend.



The code calculates churn rate by counting occurrences of True/Yes and False/No in the churn column, normalizing the counts to percentages. This shows the proportion of customers who churned (14.5%) and those who did not (85.5%).



CHURN RATE BY STATE.



States with the highest churn

['NJ', 'CA', 'TX', 'MD', 'SC', 'MI', 'MS', 'NV', 'WA', 'ME', 'MT', 'AR']

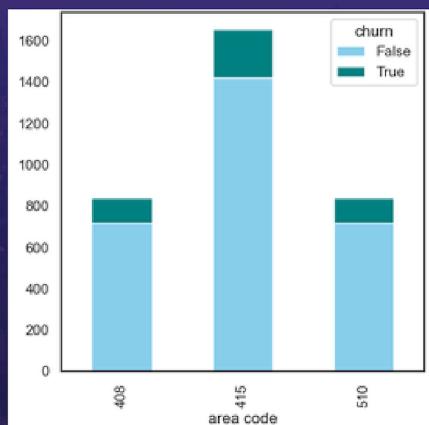
States with a Mid Range Churn

['KS', 'NY', 'MN', 'PA', 'MA', 'CT', 'NC', 'NH']

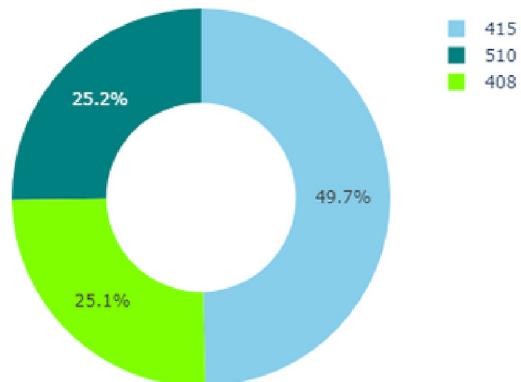
States with a low churn

['NM', 'ND', 'WV', 'TN', 'DC', 'RI', 'WI', 'IL', 'NE', 'LA', 'IA', 'VA', 'AZ', 'AK', 'HI']

CHURN BY AREA CODE



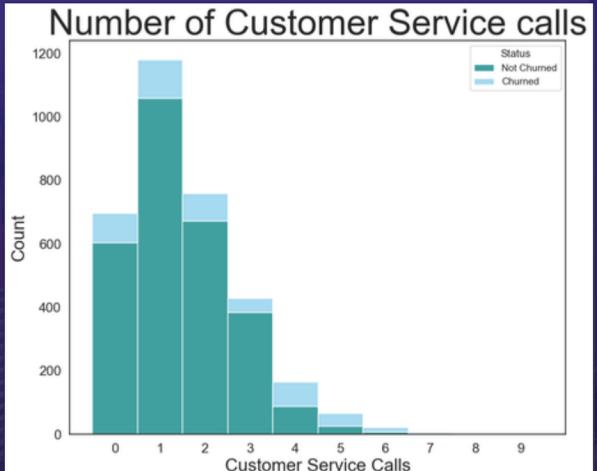
Distribution of Area Code Feature



We generate a pie chart illustrating customer distribution by area code, with each slice representing a code proportionally to the number of customers. Churn distribution based on area codes is:

- 25.2% for Area Code 510
- 25.1% for Area Code 408
- 49.7% for Area Code 415

CUSTOMER SERVICE CALLS IN RELATION TO THE CHURN RATE.



In the conclusion, it is noted that most customer service contacts involved 0 to 4 calls, with a higher proportion of non-churned customers compared to churned customers across all call counts. Churned customers had a slightly higher proportion of making 4 calls than non-churned customers.

CRURN RATE MODEL

PERFORMANCE OF OUR MODEL.

Based on the analysis:

High Accuracy: The model achieved a Training R-squared of 0.82 and Testing R-squared of 0.86, indicating a good fit on both training data and generalizability to unseen data.

Effective Churn Identification: The model has a Precision (True) of 0.98, meaning it accurately identifies most churn events.

Room for Improvement in Recall: While the Recall (True) of 0.89 is good, there's an opportunity to capture a higher percentage of actual churn events (false negatives).

RECOMMENDATION.

A).Targeted Marketing and Customer Service:

Leverage the churn prediction model to identify customers at high risk of churn. This allows SyriaTel to:

-Targeted Marketing:

Design and deliver personalized marketing campaigns to high-risk customers, potentially offering incentives or highlighting features that address their specific needs. This can re-engage these customers and encourage them to stay.

-Proactive Customer Service:

Proactively reach out to high-risk customers with personalized support or retention offers. Understanding their potential reasons for churn can help address concerns and improve customer satisfaction.

....RECOMMENDATION.

Develop Customized Service Models:

SyriaTel can analyze the characteristics of high-risk customers identified by the model. This can help them develop customized service models tailored to different customer segments. For example, high-value or high-engagement customers might benefit from dedicated account managers or premium service packages.

Model Improvement and Monitoring:

SyriaTel can refine the model by exploring hyperparameter tuning techniques, which can potentially improve its generalization and reduce false negatives (missed churn events). They can also regularly monitor the model's performance over time and retrain it with new data to ensure that it remains accurate and adapts to changing customer behavior.

CONCLUSION.

Reduced Customer Churn:

Retaining existing customers is significantly cheaper than acquiring new ones. Reduced churn translates to direct cost savings for SyriaTel.

Improved Customer Satisfaction:

Proactive engagement and personalized service can improve customer satisfaction and loyalty, further reducing churn.

Increased Revenue:

Retained customers are more likely to spend more, leading to increased revenue for SyriaTel.





Thank You

For Your Attention



YOURS TRULY, GAKURU.

