Telecommunications firms keep a close eye on customer churn, which frequently stems from things like exorbitant prices, poor customer service, changing usage patterns, ineffective voicemail, or problems with area codes. Pricing is still important since consumers are drawn to more affordable plans with superior features though this will mean high retention costs and revenue loss.

BUSINESS CONTEXT

SyriaTel seeks to identify the clients who are most likely to discontinue using its service. The business can take proactive measures, including improving service, resolving problems, or giving exclusive deals, to keep these clients happy and prevent loss of customers by understanding their needs by making predictions if a customer will stay or move
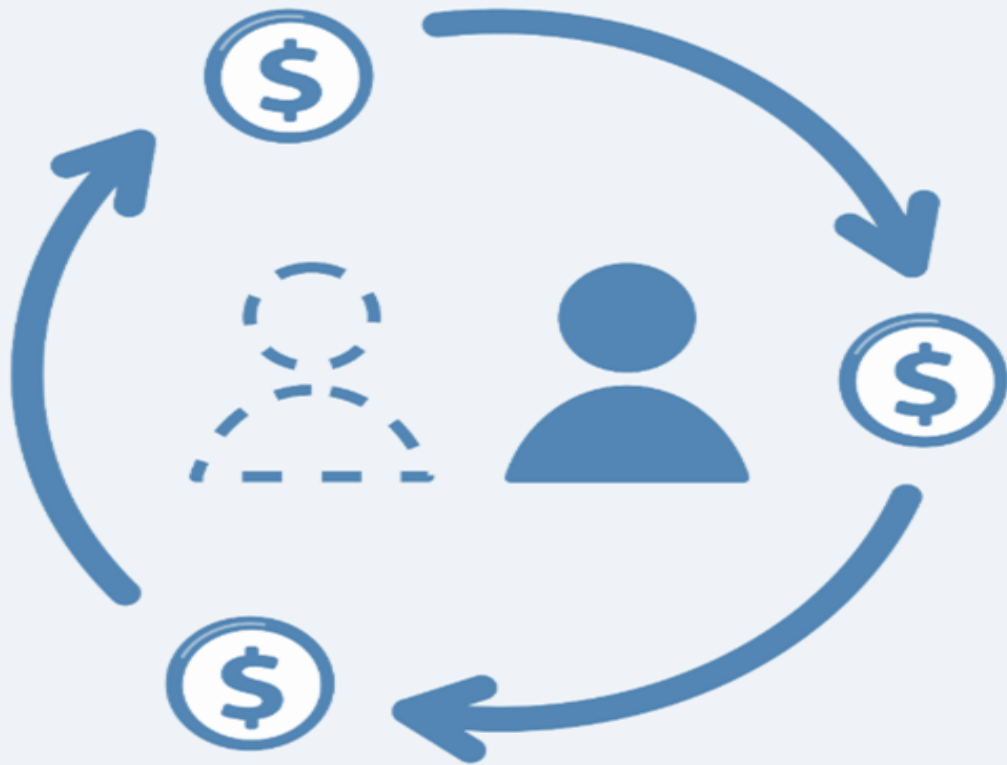
Billing issues drive churn so providing flexible plans & loyalty discounts will ensure customer loyalty.

While also improving service resolution & proactive support, by changing communication trends to impact engagement and adapt services to customer needs.

OBJECTIVES

1. Usage Patterns & Charges:

- Customers with low usage (e.g., total minutes, calls, and charges) may not be fully engaged and could be at risk of leaving. High international charges without an international plan might lead to dissatisfaction due to high costs.

2. Customer Complaints:

- Customer service calls could indicate frustration. A high number of calls may mean a customer is unhappy and considering leaving.

3. Plans & Features:

- Customers without a voice mail plan or international plan might be looking for better alternatives elsewhere. A short account length might mean new customers leave quickly if they're unhappy.

4. Retention Strategies:

- By predicting who is likely to churn, SyriaTel can offer discounts, better plans, or improved customer service before customers decide to leave.

Syria Tel main goal is retaining customers so the main goal is actually identifying false negatives but also and but also reducing costs on spent on ensuring customers remain by identifying a harmonic balanced approach of recall and precision.(For class 1)

Customer acquisition

Customer churn !!

Primary Metrix(Class 1) F1 Score

While precision focuses on the accuracy of the model's positive predictions, recall emphasizes capturing as many actual churn cases as possible. The F1 score provides a balanced view of both metrics, making it a valuable primary metric for Syria Tel aiming to improve customer retention. By optimizing for the F1 score, they can enhance their understanding of churn dynamics, leading to better-informed strategies for keeping customers.

High threshold Vs F1 Score

- By carefully combining the F1 score with an appropriate threshold, Syria Tel can enhance their churn prediction models. This approach allows them to better identify at-risk customers, tailor retention strategies more effectively, and ultimately improve customer satisfaction and loyalty.

High threshold implications

Using higher threshold in churn prediction models can enhance the reliability of predictions, ensuring that the identified at-risk customers are indeed likely to churn. However, this must be balanced with the understanding that some actual churners may be overlooked, requiring companies to find an optimal threshold that aligns with their business goals and retention strategies.
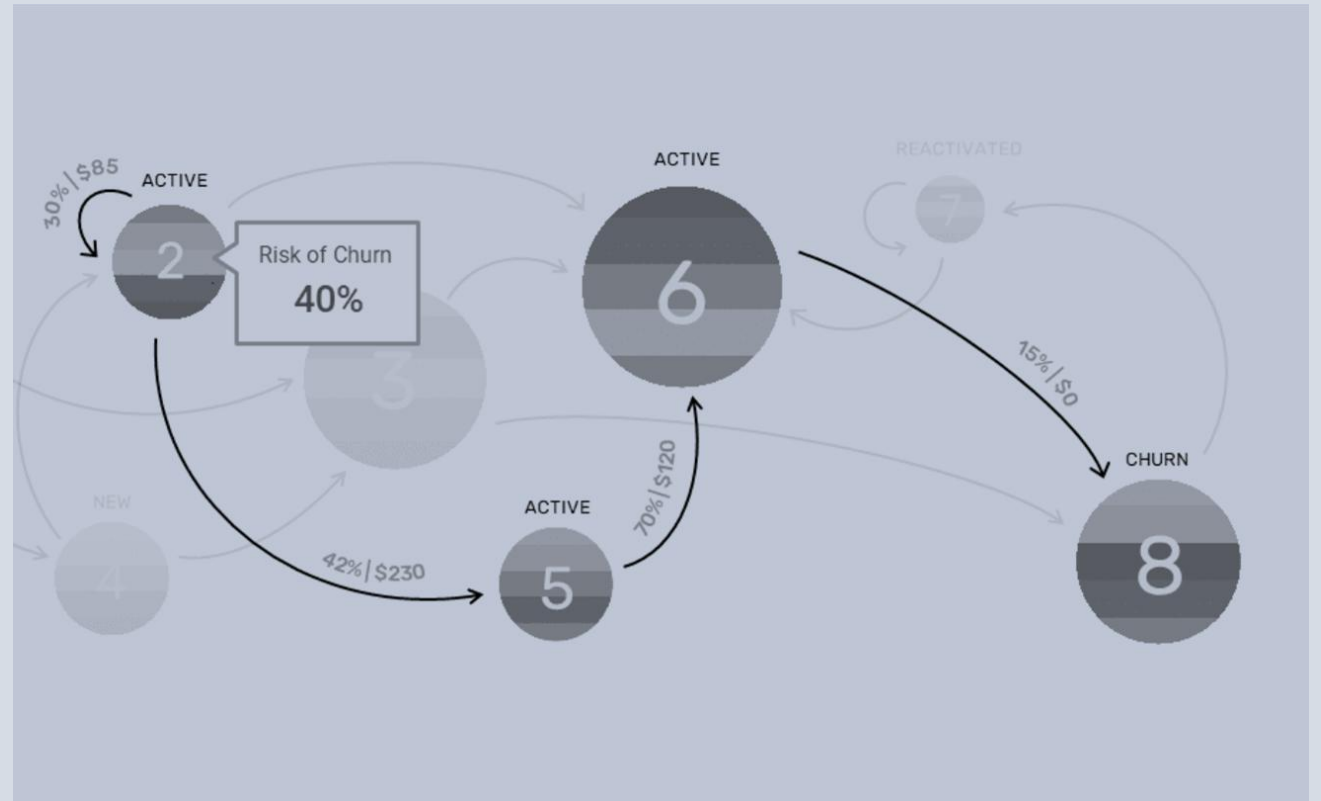
CONCLUSION

They should leverage on data insights- helps predict churn and act before customers leave.
Automate where possible – to reduce unnecessary support costs.
Personalize offers- provide discounts only when necessary, not across all customers.
Improve transparency -avoid hidden fees or charges that drive churn.