A Data-Driven Approach To Transform Freemium Customers into Premium Subscribers

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Go Premium: A Pathway to Optimized Marketing Campaigns

Current Situation

Current Freemium Model

XYZ offers freemium service with basic features. Customers can enjoy premium capabilities for a monthly subscription fee

Key Pain Point

A small proportion of target customers upgraded to premium in the previous marketing campaign

Desired Future State

Understand Customer Behavior

Identify potential customers most likely to upgrade to the premium subscription with greater confidence

Refine Campaign Reach

Devise more targeted marketing campaigns based on customer insights

Increase Conversion Rate

Achieve higher conversion rate through data-driven marketing strategies and informed decisions

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Gap

“ How do we bridge the gap to Desired Future State? ”

XYZ requires a data-driven approach to identify customers who have the highest likelihood to upgrade to the premium subscription

Desired Future State

Understand Customer Behavior

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Strategic Targeting of Customers Can Increase Efficiency of Marketing Campaigns

⬆2.3x

Increase in Conversion Rate[1]

80%⬇

Reduced Marketing Costs[2]

1. Conversion Rate = Number of premium subscription adopters / Total number of customers targeted in the marketing campaign. Conversion rates were analyzed by comparing 20% randomly selected target customers with the top 20% of customers who are most likely to convert based on the model

2. Assuming an average cost of $1 per person. Marketing expenses were calculated across 100% of customers in the prior campaign, compared to only 20% of targeted customers in the new campaign

Predicting Future Premium Subscribers using Machine Learning

Prediction Results - Confusion Matrix

	Actual Non-Adopters	Actual Adopters
Predicted Non-Adopters	3879	28
Predicted Adopters	4121	280

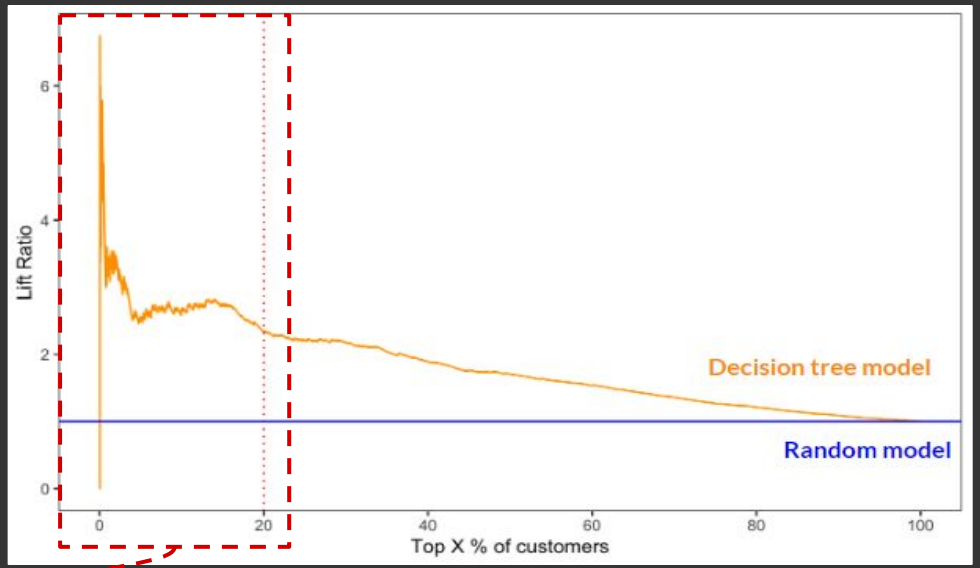
Model successfully predicted 90.91% (Recall[1]) of the customers who actually converted to premium subscribers

This metric is appropriate to evaluate the performance of the model as XYZ would not want to miss an opportunity to convert a potential customer

1. Recall refers to the model's ability to accurately identify and capture all potential subscribers who are likely to upgrade. It ensures that the model successfully recognizes users who are most likely to convert, minimizing missed opportunities
Total Actual Adopters: 308 & Model Predicted Actual Adopters: 280. Therefore, Recall = (Model Predicted Actual Adopters/Total Actual Adopters) = 280/308 = 90.91%

Our model predicts Top[1] 20% Adopters 2.3x times better than Random Model[2]

The decision tree model has a **higher lift** across top target customers, which means our model is better at identifying the premium subscribers



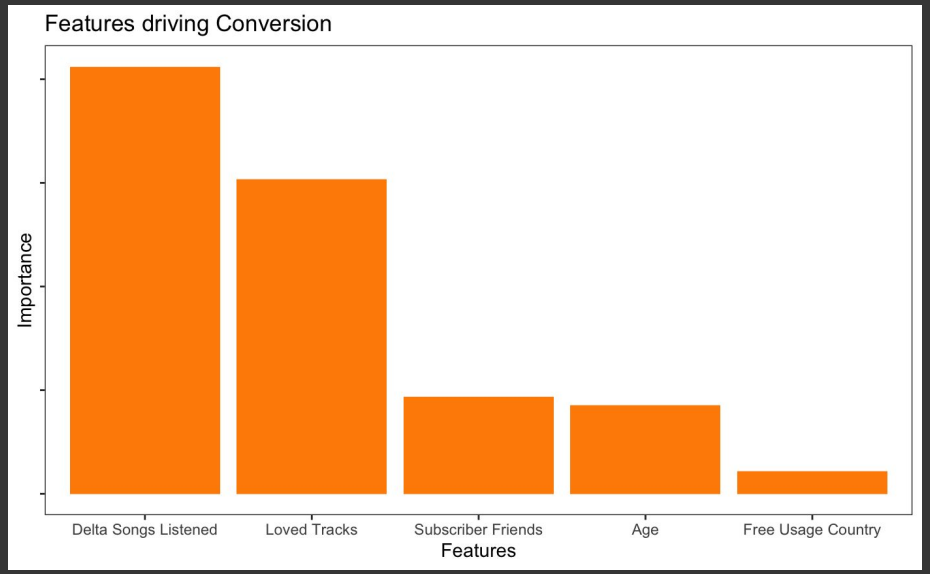
If we target Top 20% of likely subscribers, the model's lift is significantly higher than a random model (a 2.3x improvement)

Recommendation

XYZ can target the Top 20% of the likely subscribers to optimize its campaign performance for better conversion rate and lower marketing costs

1. Top Adopters are based on model predicted likelihoods(probabilities) of a customer converting to a premium subscriber
2. A Random Model chooses customers randomly for the marketing campaign

Enhance Customer Experience By Uncovering Customer Behavior Patterns



Top Drivers (Features)[1] Boosting Conversion:

- **Delta Songs Listened : The change in number of songs listened by a user over a period of time**
  This highlights that the more active a user is on the platform, the more likely the customers will be converted
- **Loved Tracks : Different songs that the user liked**
  It is indicative of engagement, satisfaction, and exploration, all of which are crucial factors influencing the decision to subscribe to a music platform
- **Subscriber Friends : Number of subscriber friends**
  The influence of social dynamics, shared experiences, trust in recommendations can significantly enhance the appeal of subscribing
- Other factors such as **Age** and countries where free usage is limited (**Free Usage Country**) are also some of the prominent features

1. *Out of all the features present in provided dataset, these 5 features influence our Decision Tree model the most to make predictions*

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- Target 20% of likely converters
- Achieve higher conversion rate
- Reduce marketing cost
- Understand customer behavior

Thank You