High Note Freemium Analysis

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Group G: Jingyi Ran, Trista Lin, William Peng, Suguru Isoda

Agenda

1.Which model is better for our task logistic regression model or a decision tree? Why? Support and defend your answer.
2.Does looking at the changes result in a different conclusion than just using the CURRENT Period?
3.Which users should we target and what would do you think the results will be (specifically how many new subscribers will we get? What will our profits be?)

WIP

Executive Summary


Model Comparison

Logistic Regression vs Decision Tree

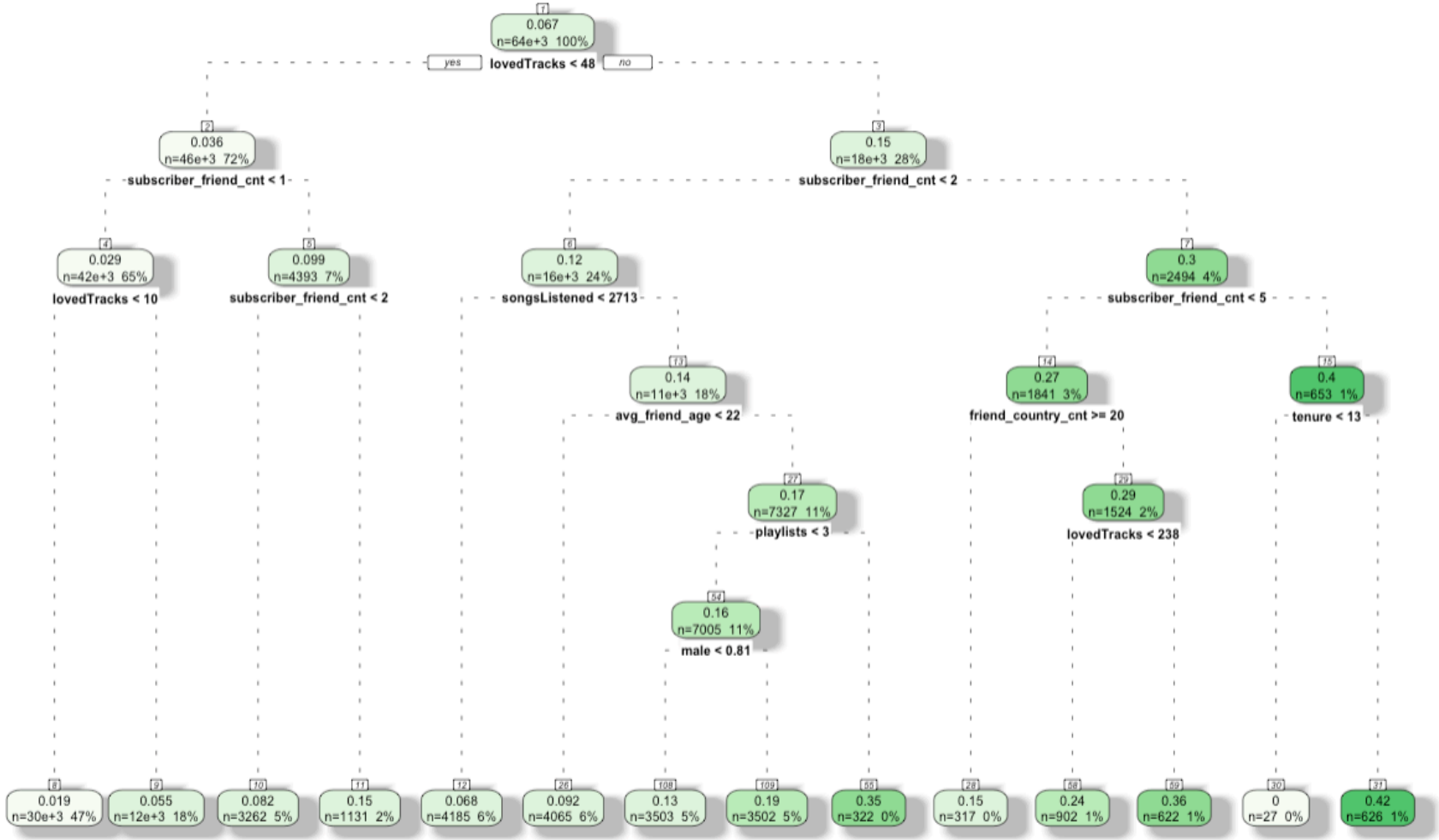
Logistic Regression

Variable	Estimate	Std. Erros	z value	meandata	sddata	Importance
playlists	2.15E-01	1.87E-02	11.49	0.53	6.14	2.75
subscriber_friend_cnt	3.92E-01	3.31E-02	11.86	0.33	2.12	1.30
lovedTracks	9.28E-04	5.75E-05	16.13	77.76	284.19	0.30
male	4.50E-01	4.44E-02	10.12	0.62	0.39	0.19
songsListened	6.87E-06	4.94E-07	13.93	12863.89	25193.67	0.19
age	2.81E-02	3.17E-03	8.87	24.39	4.96	0.15
avg_friend_age	2.20E-02	3.27E-03	6.74	2.46E+01	5.12E+00	0.12
friend_country_cnt	1.84E-02	4.41E-03	4.17	2.79E+00	4.98E+00	0.10
good_country	-2.50E-01	4.52E-02	-5.54	3.70E-01	3.80E-01	0.09
friend_cnt	1.66E-03	7.97E-04	2.09	12.23	48.19	0.08

Source: growrevenue.io

Logistic Regression vs Decision Tree

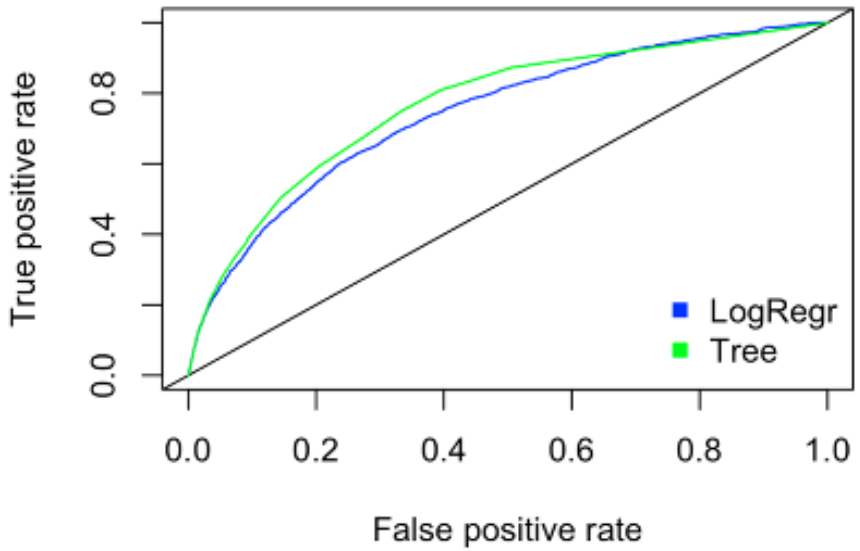
Decision Tree



Source: growrevenue.io

Logistic Regression vs Decision Tree

	Logistics Regression	Decision Tree
Accuracy	0.93	0.96
Precision	0.35	0.34
Recall	0.09	0.14
AUC	0.74	0.77



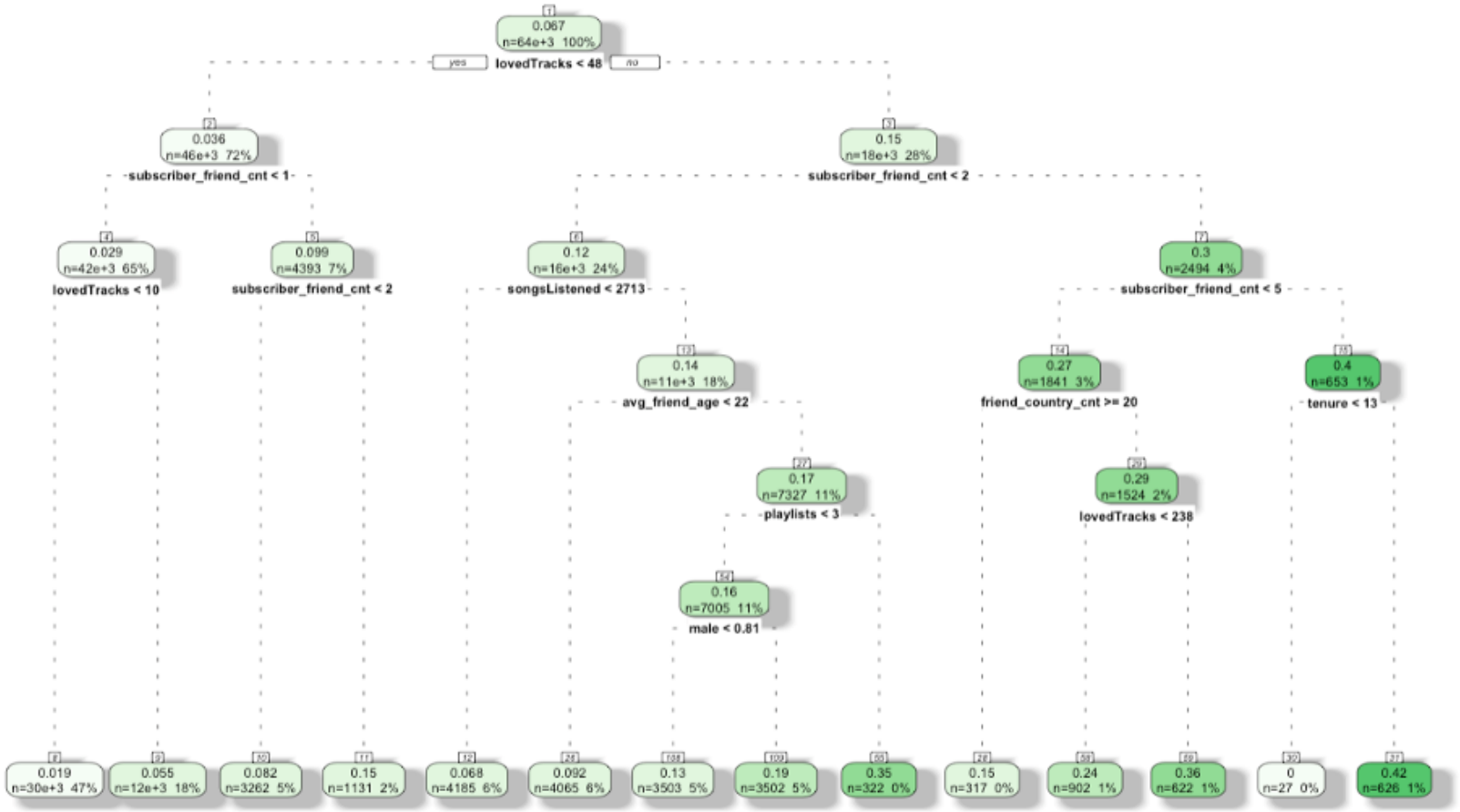
To get more accurate result → Decision Tree

Source: growrevenue.io

Current vs. Historical trend

Current Data vs Pre + Current Data

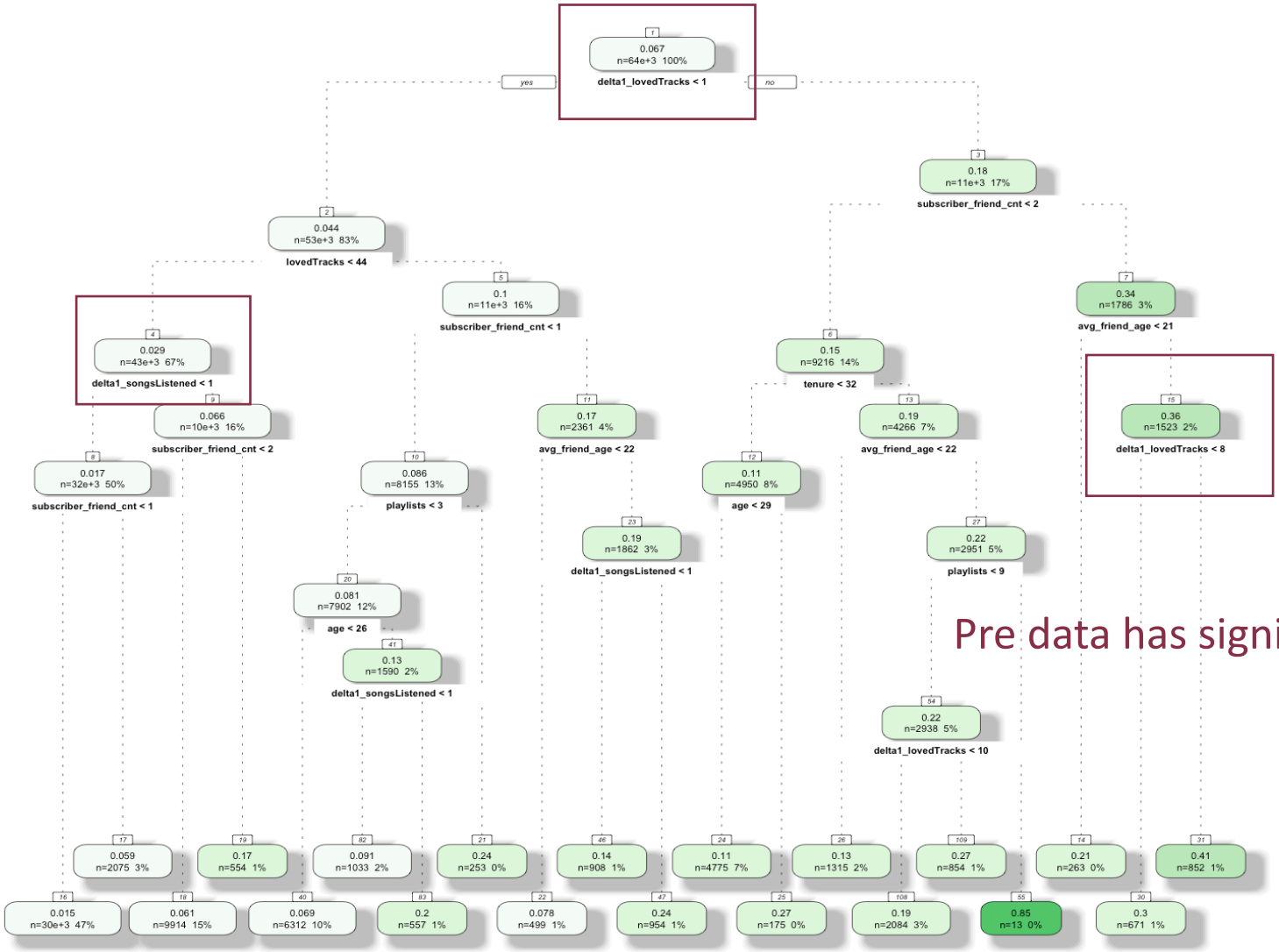
Tree model of Current Data



Source: growrevenue.io

Current Data vs Pre + Current Data

Tree model of Pre + Current Data

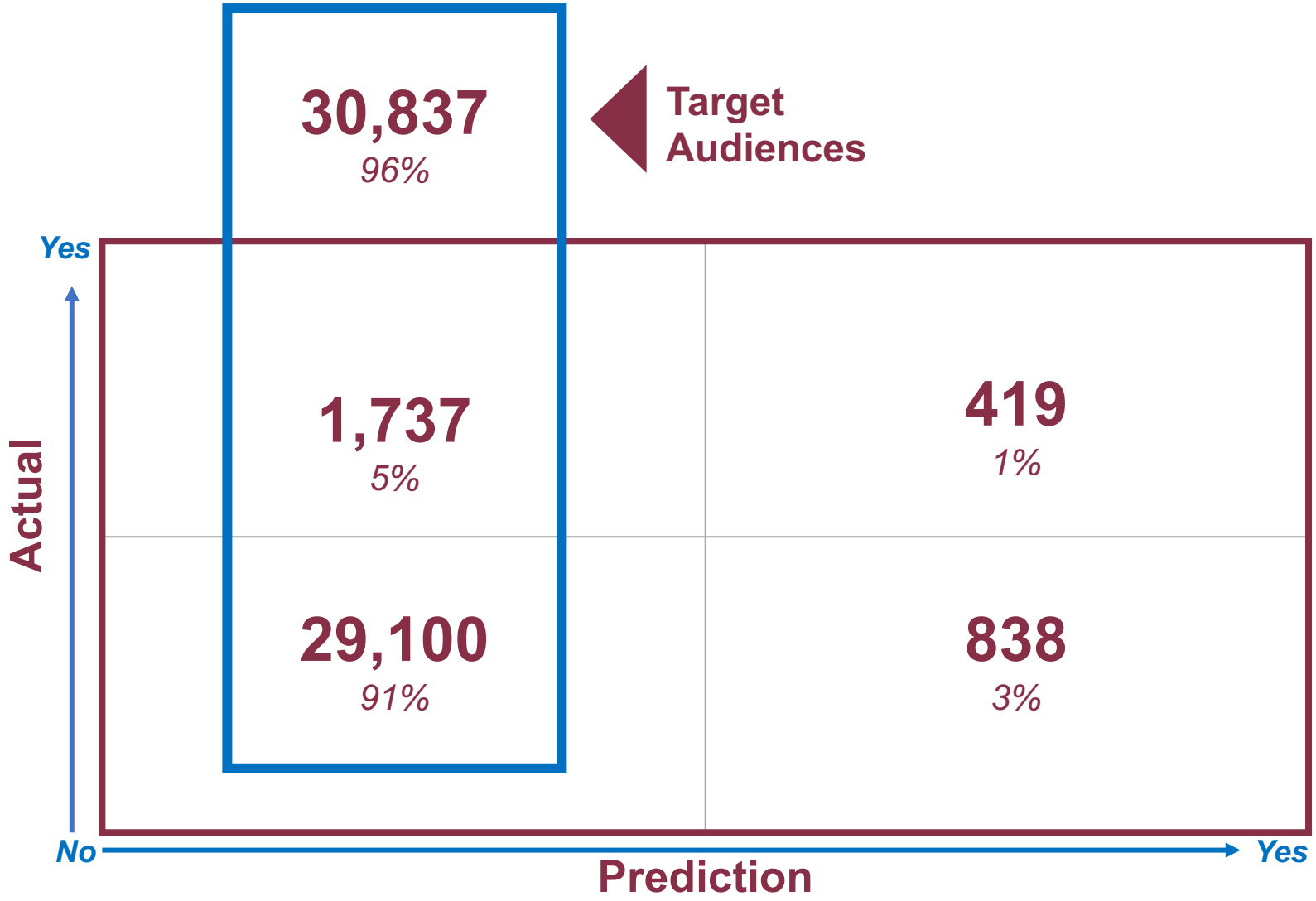


Pre data has significant impact on the result

Source: growrevenue.io

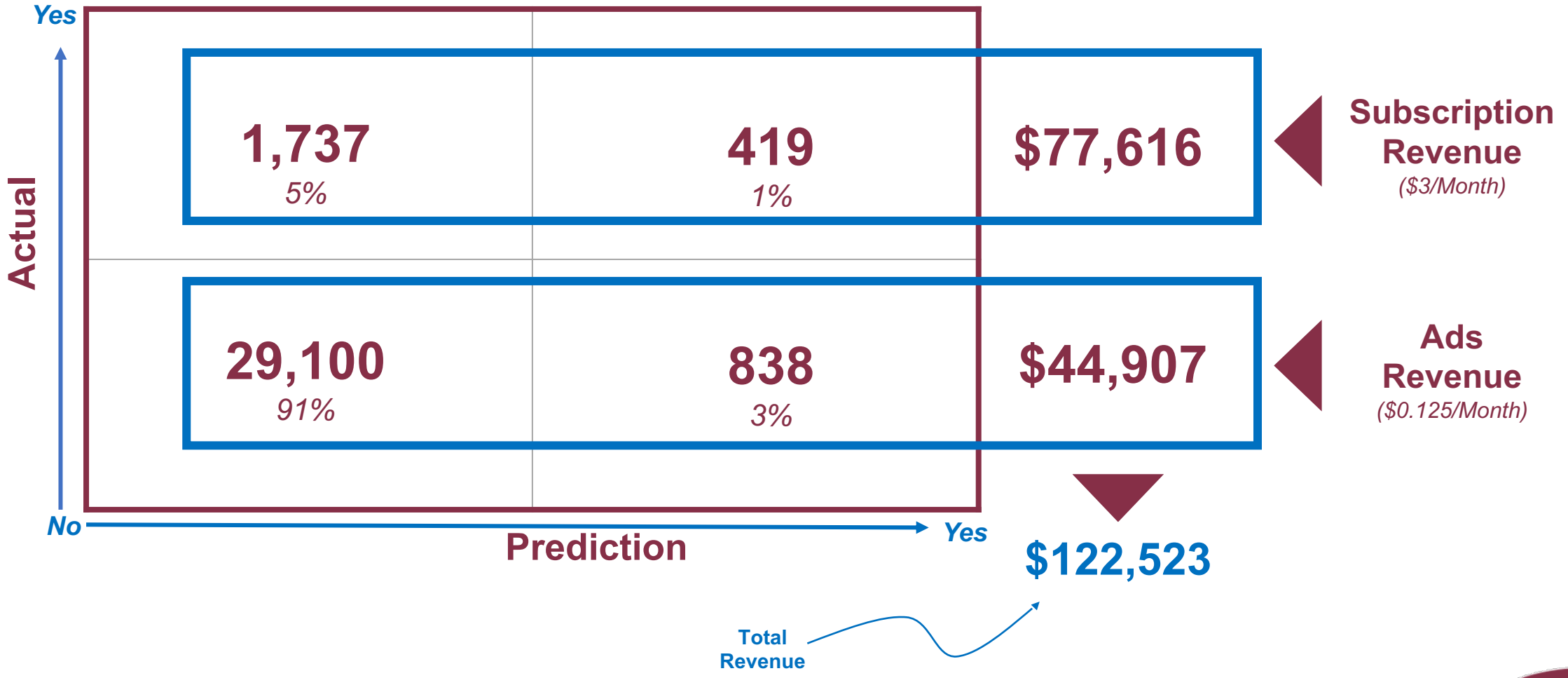
Target Audiences

High Note should consider giving promotional offers to those who the model predicts that would not subscribe.



Revenue Projection

Baseline: Current annual revenue is $122,523.



What is the minimum conversion rate we need to achieve in order to maintain current revenue?

With the promotional offer, High Note needs to convert at least 4% of Free Users in order to maintain the current revenue.

Offer Promotional Offer

	Segment One	Segment Two	Segment Three	Segment Four
	N=419	*N=838*	*N=1,737*	*N=29,100*
Prediction	*Yes*	*Yes*	*No*	*No*
Actual	*Yes*	*No*	*Yes*	*No*
	Revenue: *12-month subscription fee* **$15,084**	**Revenue:** *12-month ads fee* **$1,257**	**Revenue:** *9-month subscription fee* **$46,899** **Opportunity Cost:** *3-month subscription fee* **$15,633**	• Need additional **$59,283** from this segment • This means that we need to convert **4%** from free to premium. • **$27,700** from subscription and **$31,583** from ads **Opportunity Cost:** *3-month ads fee* **$10,528**

Is 4% feasible? Yes!

Case Study | Conversion Optimization | Inspiration

Case Study: How Spotify achieves astonishing 46% conversion rate from free to paid

Jun 24, 2019

In 2015, The Fader reported that **out of Spotify's 75 million monthly users, 20 million are paying customers.**

A 26.6% conversion rate is staggering on freemium products.

2019 Q1 data: **217 million active users, 100 million subscribers. That's 46% conversion rate.** [Source]

If 26.6% was staggering then how should we call 46%? Eye-popping? Astounding? Stupefying?

Source: growrevenue.io

Benchmarking the competitor, the projected revenue is $442,340.