Sit, Stay, Subscribe
Addressing Subscriber Churn for Ted & Poppy

Overview

- Worrying subscriber churn since rapid expansion into international markets
- Goal to increase retention, using advanced analytics to target customers likely to unsubscribe
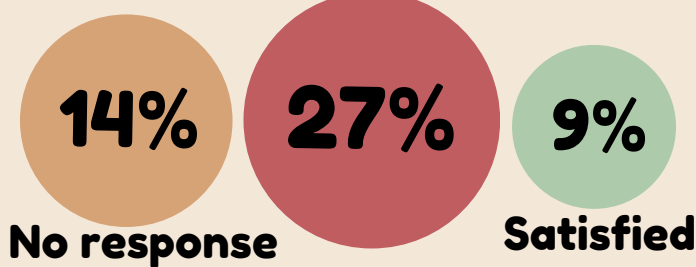
Dataset* Q4-2024

- **200,000 customers**
- **29 variables**

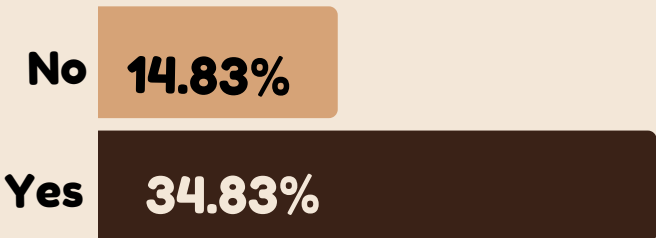*The data used for this project was synthetically generated

CHURN RATE
15.9%
in Q4 2024

Insights for Churn

Satisfaction Survey

Dissatisfied

14% No response
27%
9% Satisfied

Sub. Payment Problem

No — 14.83%
Yes — 34.83%

Support Ticket

Not in Last 6 Months

28% Last 6 Months
11%
47% This Month

False — 24.68%
True — 13.03%

Discount Coupon

Web Purchase

False — 45.6%
True — 12.37%
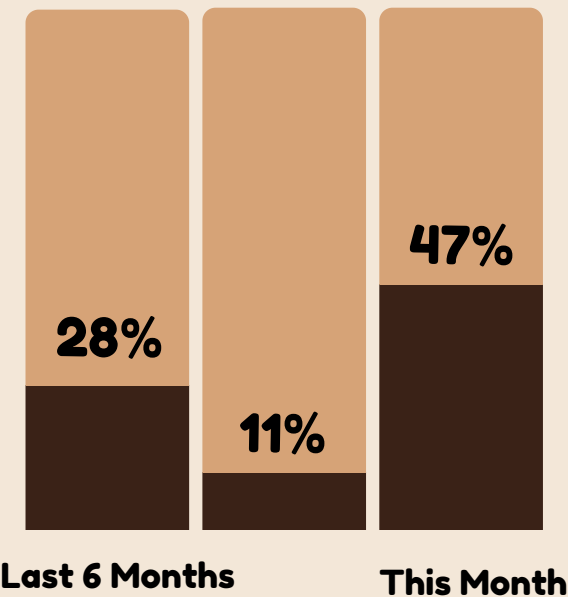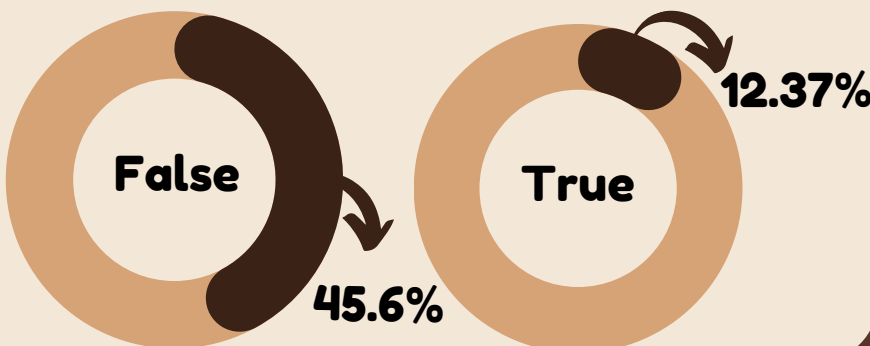
Got any treats?

Process Steps

- Data Manipulation
- Variable Selection
- Classification Modelling
- Feature Importance
- Predict & Recommend

Assumptions

Independent & Identical Distribution

Cutoff value = **0.5**

Binary dependent variable **(Retention)**

Data Preparation

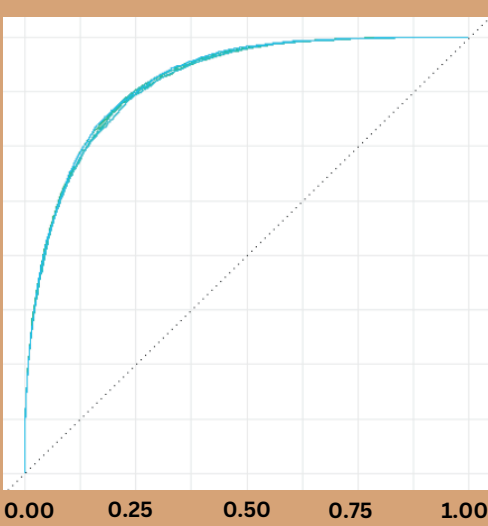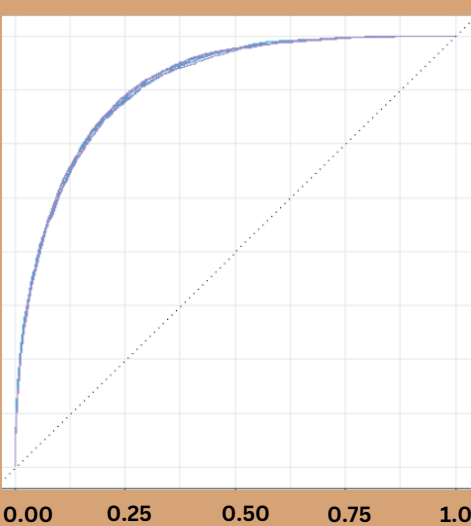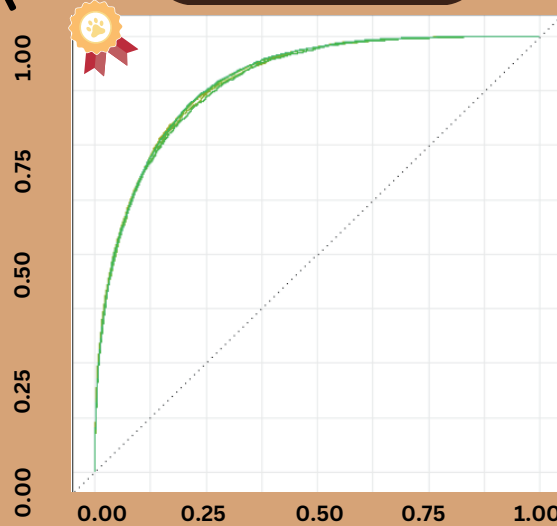**Data Split**
75:25 Training to Test

Preliminary Insights

Select variables of interest

Model ROC Curves

Top dog! **LightGBM** | **Random Forests** | **Logistic**

	LightGBM	Random Forests	Logistic
Accuracy	0.801	0.860	0.811
Sensitivity	0.827	0.624	0.816
Specificity	0.796	0.904	0.811

Final Performance (LightGBM)

Accuracy	Sensitivity	PPV
0.796	0.830	0.427

ROC AUC 0.896

True Positive 13%	False Positive 18%
False Negative 3%	True Negative 66%

Recommendations

Put Feature Importance here!

- Support Ticket Raised
- Web Purchase
- Satisfaction Survey
- Discount Coupon
- Sub. Payment Problem

Initiate an urgent customer experience improvement project

- Improve customer support by implementing a new Customer Services system, with a dedicated team to handle payment issues
- Drive website engagement with exclusive discounts, limited time offers, and retention incentives like rewards points
- Conduct sentiment analysis to understand pain points and create action plans to address them

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