

# Post-ETF trade activation model

Model Analysis Report - **Vedant and Shine**

github: [https://github.com/shineiifl/etf\\_trade\\_activator](https://github.com/shineiifl/etf_trade_activator)



## Problem Statement

Prediction model to predict potential clients to get trade activated and to pivot post ETF acceptance. Model could predict potential trade clients once he/she accepts the ETF and can be prompted for trade activation by the business people.

## Features selected

Age
sex
income_per annum
occupation
Z20
app_status
E2 channel
iskarvy
KRA
number of logins in last year
num_trades in last year
months since last login
months since last trade
FAO segment trading client
delivery segment trading client
intraday segment trading client
dp_holding
ledger_balance

## Target variable

Binary column translating to 0 or 1 whether the client has traded post ETF acceptance.

## Training set

Training matrix taken to train the model is the the clients who accepted till 15th Nov 2021.

Size of training set after cleaning the data: **320632**

Clients who traded post ETF: **51523**

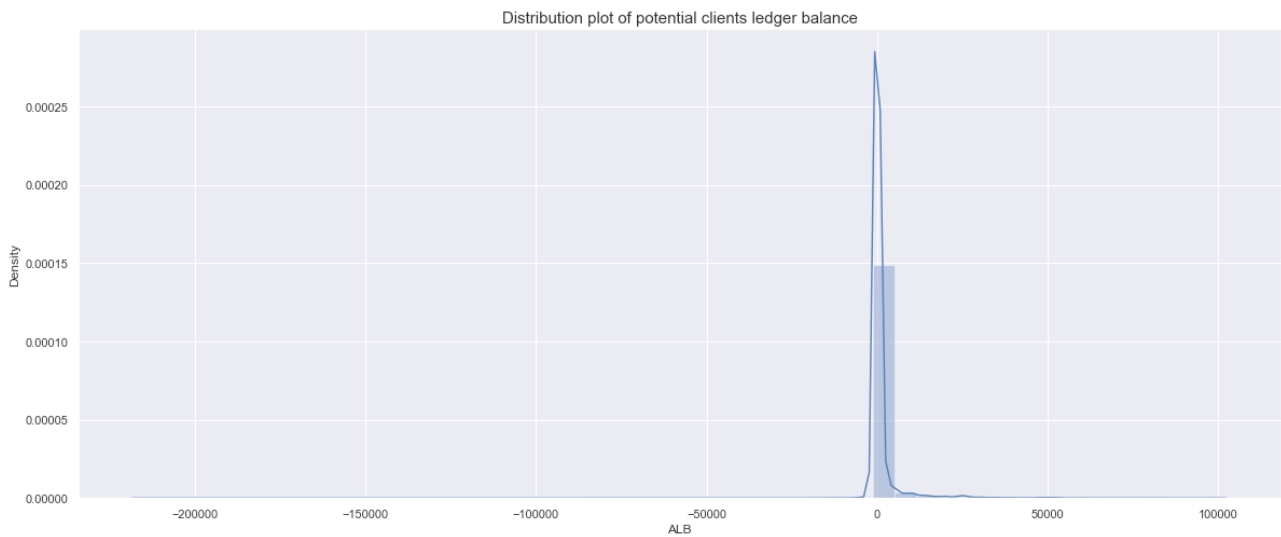
# Analysis

Clients who were trading in past year: **82732**  
Clients who were logged in past year: **216605**

Clients who did only less than 10 trades and are trading post ETF: **30616**

## Analysis of the above 30616 clients:

		Count	
Median age of clients		29.0	
KRA clients		11453	
Karvy client		2905	
Most frequent income slabs	<=1L	17632	
	5_10L	11038	
Most common E2channel	CAT	20729	
Median Days since last logins		7.634	
Median Days since last delivery trades		24.39	
Median Days since last intraday trades		3960	
Median logins in last one year		28	
Median trades in last one year		3	



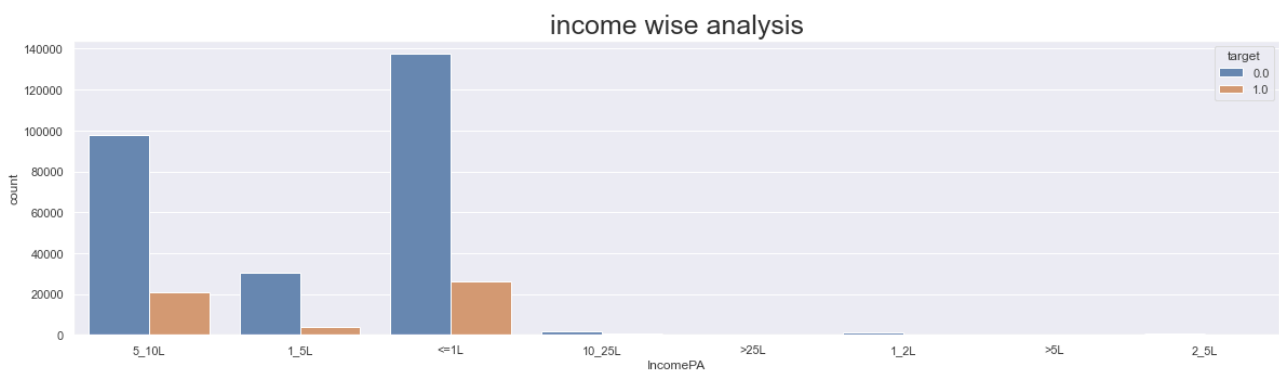
Clients who are logging in last month frequently and not trading post ETF: **40382**

Analysis of the above 40382 clients:

		Count	
Median age of clients		27	
KRA clients		14796	
Karvy client		2500	
Most frequent income slabs	<=1L	27811	
	5_10L	10911	
Most common E2channel	CAT	30107	
Median Days since last logins		13.54	
Median Days since last delivery trades		20.44	
Median Days since last intraday trades		3960	
Median logins in last one year		4	
Median trades in last one year		1	

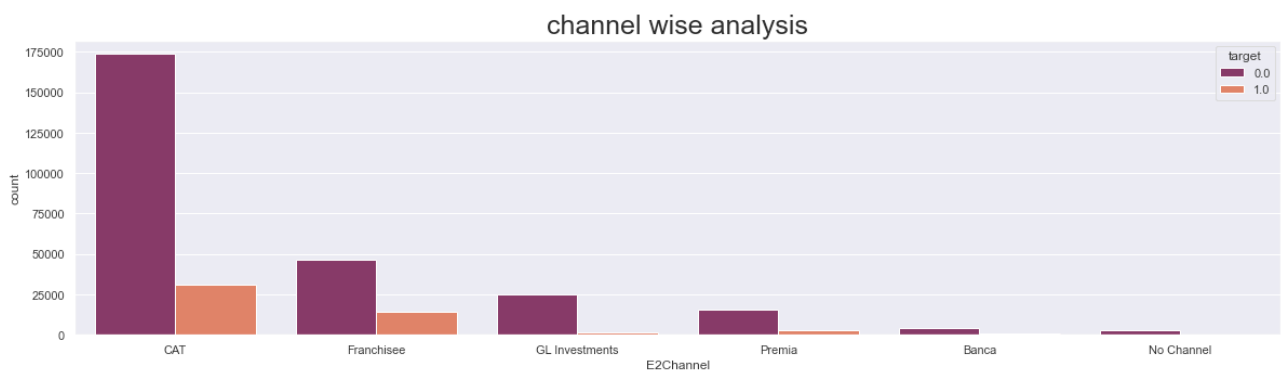
General Analysis:

## Income Analysis



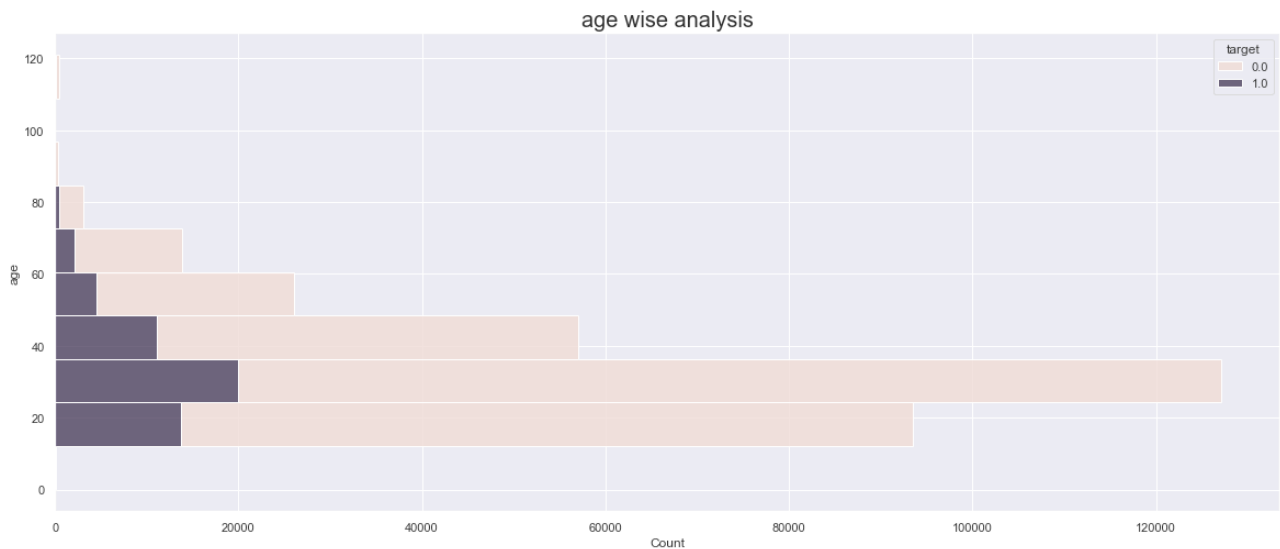
ncomePA	target	count	perc	
0	10_25L	0.0	1596	62.71%
1	10_25L	1.0	949	37.29%
2	1_2L	0.0	1275	95.79%
3	1_2L	1.0	56	4.21%
4	1_5L	0.0	30516	88.52%
5	1_5L	1.0	3959	11.48%
6	2_5L	0.0	643	96.55%
7	2_5L	1.0	23	3.45%
8	5_10L	0.0	97591	82.49%
9	5_10L	1.0	20713	17.51%
10	<=1L	0.0	137345	83.99%
11	<=1L	1.0	26180	16.01%
12	>25L	0.0	355	76.67%
13	>25L	1.0	108	23.33%
14	>5L	0.0	194	96.52%
15	>5L	1.0	7	3.48%

## E2Channel Analysis

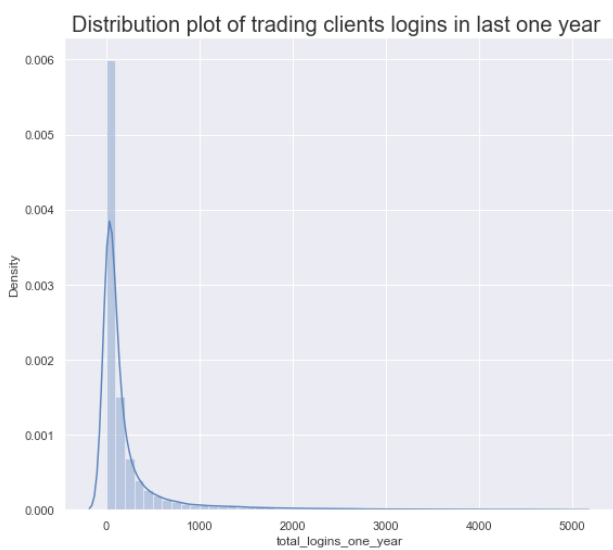
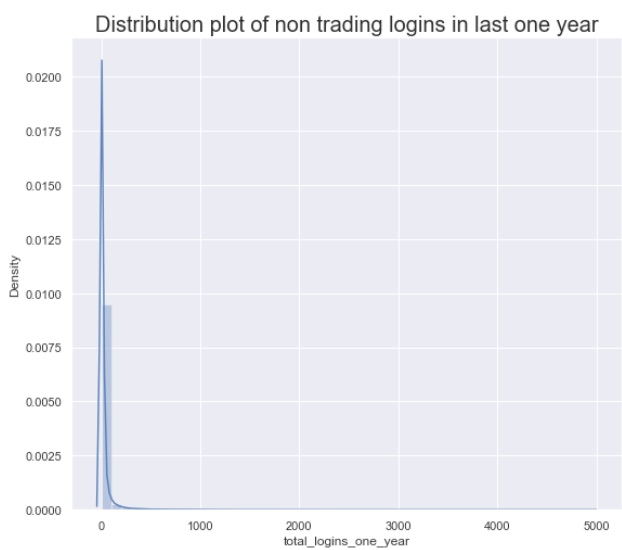


E2Channel	target	count	perc	
0	Banca	0.0	4289	86.00%
1	Banca	1.0	698	14.00%
2	CAT	0.0	173570	84.72%
3	CAT	1.0	31307	15.28%
4	Franchisee	0.0	46600	76.51%
5	Franchisee	1.0	14306	23.49%
6	GL Investments	0.0	24782	93.32%
7	GL Investments	1.0	1773	6.68%
8	Premia	0.0	15485	82.93%
9	Premia	1.0	3187	17.07%
10	others	0.0	4884	86.98%
11	others	1.0	731	13.02%

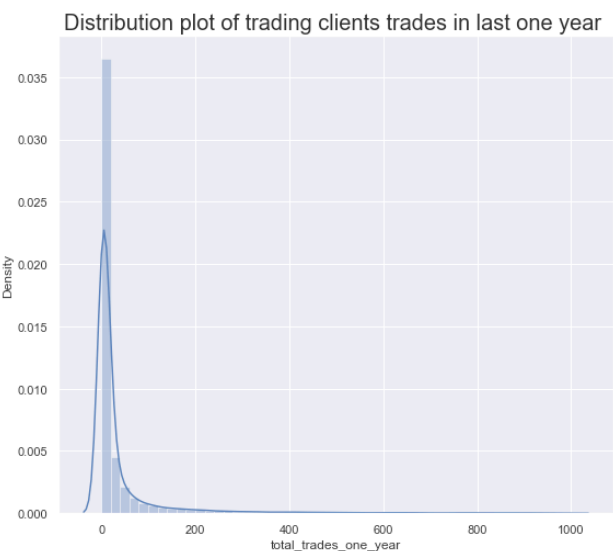
## Agewise Analysis



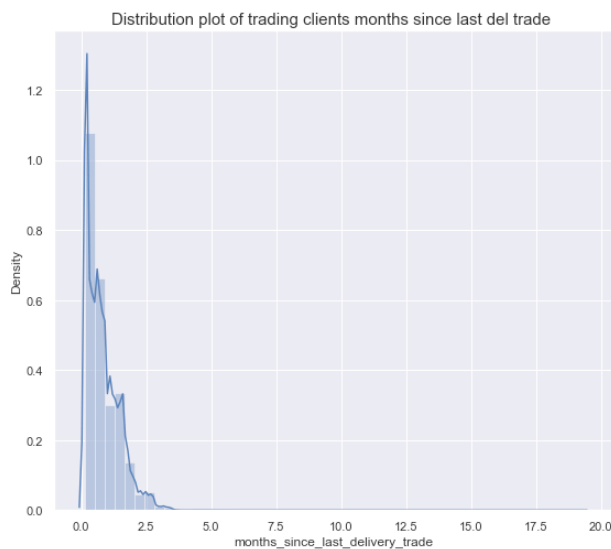
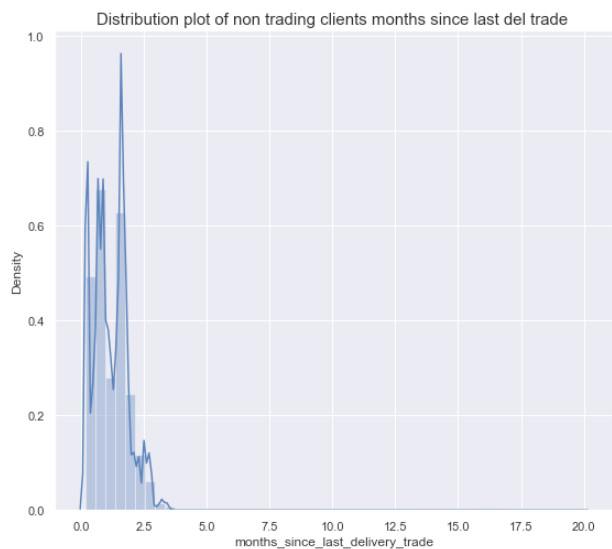
# Logins in last year analysis



# Trades in last year analysis



# months since last delivery trade



## Model performance

- \* Accuracy:0.9877
- \* AUC:0.998
- \* Recall:0.96
- \* Logloss: 0.035

## Business Results

Model predicted potential clients whom can be targeted on: **7964**