CASE STUDY

Client Profile

Client is a Mumbai based Online Trading Company that provides financial services like BSE and NSE share market trading, free demat account opening, mutual fund.

It is a part of the group of companies which is offering a range of financial products and services such as Wealth Management, Retail Broking and Distribution, Institutional Broking, Asset Management, Private Equity, Investment Banking, Commodity Broking and Home Finance.

Challenges

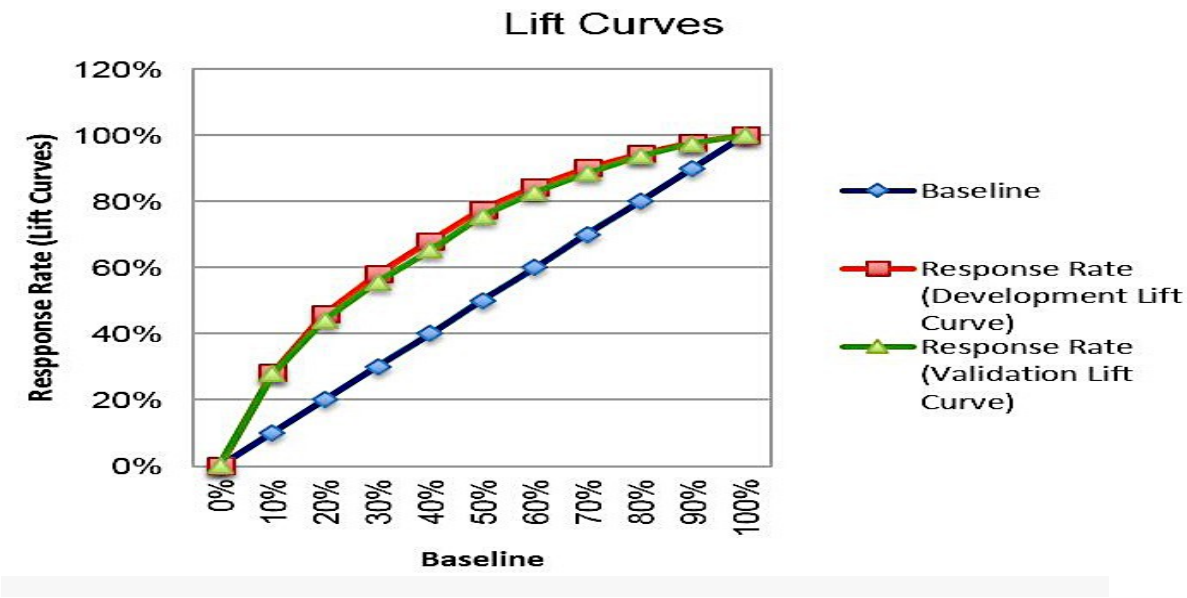
Clients business team builds online platforms and promotes it

There is currently no structured strategy for targeting potential clients

Our Deliverables

- Unified client data in one single system to offer a complete picture of the company's relationship with the customers.
- Easy collection and integration of data from different sources.
- Developed a predictive binary logistic regression model scoring the customer base which has the following key highlights
    - ✓ Predictive Power: - The model has predictive power to capture increased response rate percentages in the top10%, 20% and top 30% of scored population (In data with Response Rate of 1.8%approx).
    - ✓ Validation:- The hold out sample generated identical results peaking at the third decile or giving the best results in the top 30% of the population
    - ✓ Classification accuracy: - The responder - non responder classification of the model is very good in terms of accuracy
- Categorize, analyze and communicate with customers on the basis of the specific information and needs.
- Create workflow processes that ensure consistency.
- Improving the follow up process with the potential clients.

Model Performance



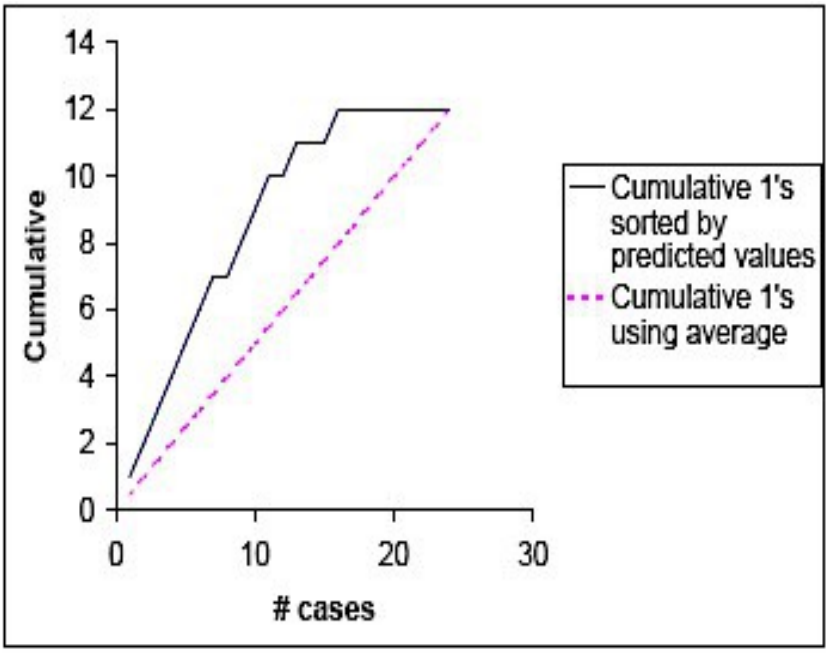
Lift - 93.5% (explained in below table)

	Deciles		
	1	2	3
Responders	417	681	862
Total population till decile	7,839	15,678	23,527
Response rate of the decile	5.3%	4.3%	3.7%
Response rate of total population	1.9	1.9	1.9
Difference in decile response rate with population	3.4	2.4	1.8
Increase in response rate in %	178.9%	126.3%	94.7%

Industry standard lift calculation and inference

- **One useful way to think of a lift curve is to consider a data mining model that attempts to identify the likely responders to a campaign by assigning each case a "probability of responding" score.**
- **The lift curve helps us determine how effectively we can "skim the cream" by selecting a relatively small number of cases and getting a relatively large portion of the responders.**
- **It is convenient to look at the cumulative lift chart (sometimes called a gains chart) which summarizes all the information in these multiple classification matrices into a graph.**

- **The graph is constructed with the cumulative number of cases (in descending order of probability) on the x-axis and the cumulative number of true positives on the y-axis.**
- **True positives are those observations from the important class (here class 1) that are classified correctly. The figure gives the table of cumulative values of the class 1 classifications and the corresponding lift chart.**



The purple line (*Baseline) represents the expected number of positives a business would predict by simple selected cases at random (no strategy)

Source : https://www3.nd.edu/~busiforc/handouts/DataMining/Lift%20Charts.html