Acquisition Analytics Insights

By

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Problem Statement

Predict the probability of a response from each prospect and target the ones most likely to respond to the next telemarketing campaign.

Business Objective

Achieve 80% of total responders at the minimum possible cost. Calculate the X in the top X%, i.e., how many prospects should be called to meet the business objective?

Assumption Made

While analyzing marketing cost and response, assumed that the cost of a phone call is independent of its duration (₹1 per call), which is not true practically. So, built model without “duration” variable.

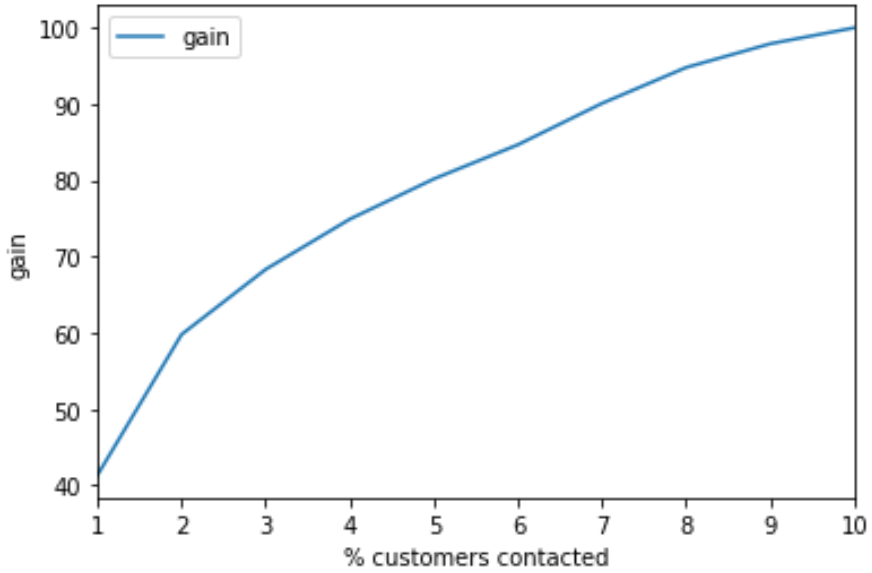
Methodology

- Identified following variables as relevant in predicting response from customers:
  - job_retired
  - month_mar
  - poutcome_success
  - job_student
  - month_may
  - cons.price.idx
  - contact_telephone
  - previous_Nevercontacted
  - euribor3m

Methodology (continued…)

- To achieve our business objective of acquiring 80% of total responders at the minimum possible cost, we need to target only top 50% of the total customers.

	decile	total	actual_response	cummulative_response	gain	cummulative_lift
9	1	1236	571	571	41.316932	4.131693
8	2	1236	255	826	59.768452	2.988423
7	3	1235	118	944	68.306802	2.276893
6	4	1236	91	1035	74.891462	1.872287
5	5	1235	73	1108	80.173661	1.603473
4	6	1236	62	1170	84.659913	1.410999
3	7	1236	75	1245	90.086831	1.286955
2	8	1235	65	1310	94.790159	1.184877
1	9	1235	43	1353	97.901592	1.087795
0	10	1237	29	1382	100.000000	1.000000



Methodology (continued…)

Determining cost of acquisition

Formula given:

- cost = 1*number of contacts made in the current campaign

Calculation:

- cost = 1* (50% of 12357) = ₹6178.5
- Here, 12357 is the total number of customers taken from test dataset used for model testing.