Lead Scoring Case Study – 03 – March – 2019

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1. Which are the top three variables in your model which contribute most towards the probability of a lead getting converted?

   Response:
   Based on the Coefficients of the variables in the model the following 3 variables in the model has been found

   i. What is your current occupation
   ii. Lead Origin
   iii. Lead Source

2. What are the top 3 categorical/dummy variables in the model which should be focused the most on in order to increase the probability of lead conversion?

   Response:
   Based on the Coefficients of the variables in the model the following 3 categorical/dummy variables in the model has been found

   i. Working Professional of 'What is your current occupation'
   ii. Lead Add Form of 'Lead Origin'
   iii. Welingak Website of 'Lead Source

3. X Education has a period of 2 months every year during which they hire some interns. The sales team, in particular, has around 10 interns allotted to them. So, during this phase, they wish to make the lead conversion more aggressive. So, they want almost all of the potential leads (i.e. the customers who have been predicted as 1 by the model) to be converted and hence, want to make phone calls to as much of such people as possible. Suggest a good strategy they should employ at this stage.

   Response:
   The following is the Confusion matrix the leads that got converted/not converted of Actual data vs predicted model calculated at an optimal cutoff of 0.35

Optimal - Cut-off: 0.35	**Prediction**	
Actual	Not-Converted	Converted
Not-Converted	2866	763
Converted	359	1796

As per the table. True Positive Rate is 1796.

For an aggressive strategy to increase the True Positive Rate by making more phone calls (lead conversion to be more aggressive) the optimal cut-off can be decreased which would increase the Sensitivity. For example, we decreased the Optimal cut-off to 0.25 and we observed the results as below

Optimal - Cut-off: 0.25	**Prediction**	
Actual	Not-Converted	Converted
Not-Converted	2614	1015
Converted	224	1931

As you can see above, the TPR increased from 1796 to 1931 so leads conversion has increased by 135 leads. So, the 10 interns can target this additional 135 'Hot leads' in 2 months. According to how much the interns can handle we can decrease the optimum cut-off value and aggressively target the Customers with phone calls.

4. Similarly, at times, the company reaches its target for a quarter before the deadline. During this time, the company wants the sales team to focus on some new work as well. So during this time, the company's aim is to not make phone calls unless it's extremely necessary, i.e. they want to minimize the rate of useless phone calls. Suggest a strategy they should employ at this stage.

Response:

Like the above strategy to make a less aggressive phone calls we can increase the optimum cut-off so that the Specificity increases i.e. the TPR decreases and we would have a smaller number of True Positives.

For example, we increased the optimal cut-off value to 0.45 and observed the following results

Optimal - Cut-off: 0.45	**Prediction**	
Actual	Not-Converted	Converted
Not-Converted	3186	443
Converted	613	1542

As you see in the table the True Positive have decreased from 1796 in actual data to 1542 in the predicted model. So, there is decrease of 254 positive leads. Hence the sales team would have a smaller number of leads to focus on or unnecessarily need not make phone calls to these many leads and the time can be utilized for new work.