

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

Ans: The Table 1 given below shows the features in final model and there coefficients. From table it is evident that the top 3 variables that contribute for lead getting converted in the model are:

- Lead Origin_Lead Add Form,
- What is your current occupation_Working professionals,
- Lead Source_Olark Chat

Table 1. Final model feature names and coefficients.

Feature name	Coefficient
Lead Origin_Lead Add Form	4.315643
What is your current occupation_Working Professional	2.728219
Lead Source_Olark Chat	1.272080
Total Time Spent on Website	1.118258
Last Activity_SMS Sent	0.381176
const	-0.196029
Last Activity_Converted to Lead	-0.777787
Last Activity_Email Bounced	-0.918849
Last Notable Activity_Email Opened	-1.163690
Last Notable Activity_Page Visited on Website	-1.277239
Last Activity_Olark Chat Conversation	-1.335138
Do Not Email	-1.371936
Last Notable Activity_Modified	-1.519683
Last Notable Activity_Email Link Clicked	-1.715187
Last Notable Activity_Olark Chat Conversation	-1.973961

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?

Ans: The top 3 categorical/dummy variables that contribute for lead getting converted in the model are (as evident from Table 1):

- Lead Origin_Lead Add Form,
- What is your current occupation_Working professionals,
- Lead Source_Olark Chat

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.

Ans: Strategy for Aggressive Lead Conversion

As stated sales team at X Education has 10 additional workers (interns) for small duration of 2 months, they can be more aggressive in pursuing leads. The goal is to maximize the conversion of high-potential leads (hot leads) predicted as 1 (converted) by the model. Here's a 2 step strategy to achieve this:

Step 1: Select an aggressive probability cutoff: Sensitivity-Specificity balance suggested an optimal cutoff of 0.35 for lead scoring. However to maximize potential conversions, cutoff can be slightly lowered from 0.35 or 0.25, ensuring very high recall leading to almost all conversion of potential leads.

Step 2: Consider High Lead Scores: Leads with top priority having Lead Score > 70 must be immediately contacted by phone call and followed up as these leads have height probability to be converted. Medium Priority (Lead Score 50-70) leads may be contact through a combination of calls and SMS.

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.

Ans: To reduce useless phone calls or in other word to decrease false positive rate, two step approach may be used: 1) increase the cutoff from 0.35 to say 0.6, and 2) consider only those leads having Lead score >70.