

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

Based on the coefficient values, the following are the top three variables that contribute most towards the probability of a lead getting converted -

- Tags (It is the important variable which should be focused)
- Lead source (It is the important feature which should be focused)
- Time spent on website (Positive contribution - Higher the time spent on the website, higher the probability of the lead converting into a customer)

	coef
const	-6.2311
Total Time Spent on Website	4.0872
Lead Origin_Lead Add Form	2.0470
Lead Source_Olark Chat	1.3612
Lead Source_Welingak Website	4.4394
Last Activity_Email Bounced	-1.6515
Tags_Busy	2.8593
Tags_Closed by Horizzon	9.4100
Tags_Lost to EINS	9.2842
Tags_Ringing	-1.0469
Tags_Unknown	2.3309
Tags_Will revert after reading the email	6.9173
Tags_in touch with EINS	3.1969
Tags_switched off	-1.7328
Last Notable Activity_Email Opened	1.1344
Last Notable Activity_SMS Sent	3.4036
Last Notable Activity_Unreachable	1.8723

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?

Based on the coefficient and VIF values, the following are the top categorical variables that contribute most towards the probability of a lead getting converted -

- Tags_Will revert after reading the email
- Last Notable Activity_SMS Sent
- Lead Origin_Lead Add Form

- 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.

	Converted	Converted_prob	LeadId	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
0	0	0.187341	5024	1	1	0	0	0	0	0	0	0	0
1	1	0.991422	5651	1	1	1	1	1	1	1	1	1	1
2	0	0.020097	8875	1	0	0	0	0	0	0	0	0	0
3	0	0.036807	53	1	0	0	0	0	0	0	0	0	0
4	1	0.968390	1928	1	1	1	1	1	1	1	1	1	1

Cut off point of 0.25 can be considered optimal

During the two-month intern hiring phase at X Education, where the sales team is equipped with 10 interns, an effective strategy to aggressively boost lead conversion can be devised:

Begin by identifying potential leads using key variables such as Tags, Lead Source, and Time Spent on Website. The customers which should be contacted are the customers whose "Lead Score" is equal to or greater than 85. They can be termed as 'Hot Leads'.

To drive aggressive sales, initiate contact with all leads whose conversion probability is 1 and falls below the 0.25 cut-off. Create a comprehensive lead scoring model that factors in Time Spent on Site, Total Visits, and Lead References to refine lead prioritization.

Empower interns with a readily available conversion model encompassing key variables. Train them in consistent, personalized communication, starting with SMS and calls. This builds familiarity, enabling deeper discussions on backgrounds, challenges, and finances. Cultivate an environment where interns grasp the platform's value and convey its potential confidently. Focus on success stories and benefits to nurture leads' confidence. Through persistent, empathetic interactions, interns should demonstrate the platform's ability to address needs and enhance their professional journey.

Continuous follow-up and feedback, along with data-driven insights, refine the strategy iteratively. By synergizing intern efforts, data analysis, and personalized outreach, X Education can realize aggressive lead conversion, capitalizing on intern enthusiasm to convert potential leads effectively.

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.

	Converted	LeadID	Converted_prob	final_predicted	Lead_Score
0	0	5908	0.007616	0	1
1	1	4014	0.960143	1	96
2	0	4183	0.025946	0	3
3	1	2746	0.991920	1	99
4	1	3446	0.942547	1	94

During a quarter when the company achieves its target early, a strategy to minimize unnecessary phone calls involves prioritizing outreach effectively. Firstly, contact leads with a conversion probability below 0.75, ensuring efficient resource allocation. Although some converted leads might be missed, the achieved target mitigates concerns.

Secondly, exclude unemployed leads due to potential budget constraints. Lastly, avoid targeting students, as they're unlikely to enroll in a course tailored for working professionals. By concentrating efforts on viable leads and aligning outreach with target demographics, the company optimizes its approach, avoiding wasteful calls while exploring new opportunities beyond the initial goal.