

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

Lead Origin_Lead Add Form
 What is your current occupation Working Professional
 Last Activity_SMS Sent

are the top three variables that contribute most towards the probability of a lead getting converted based on the coefficient values

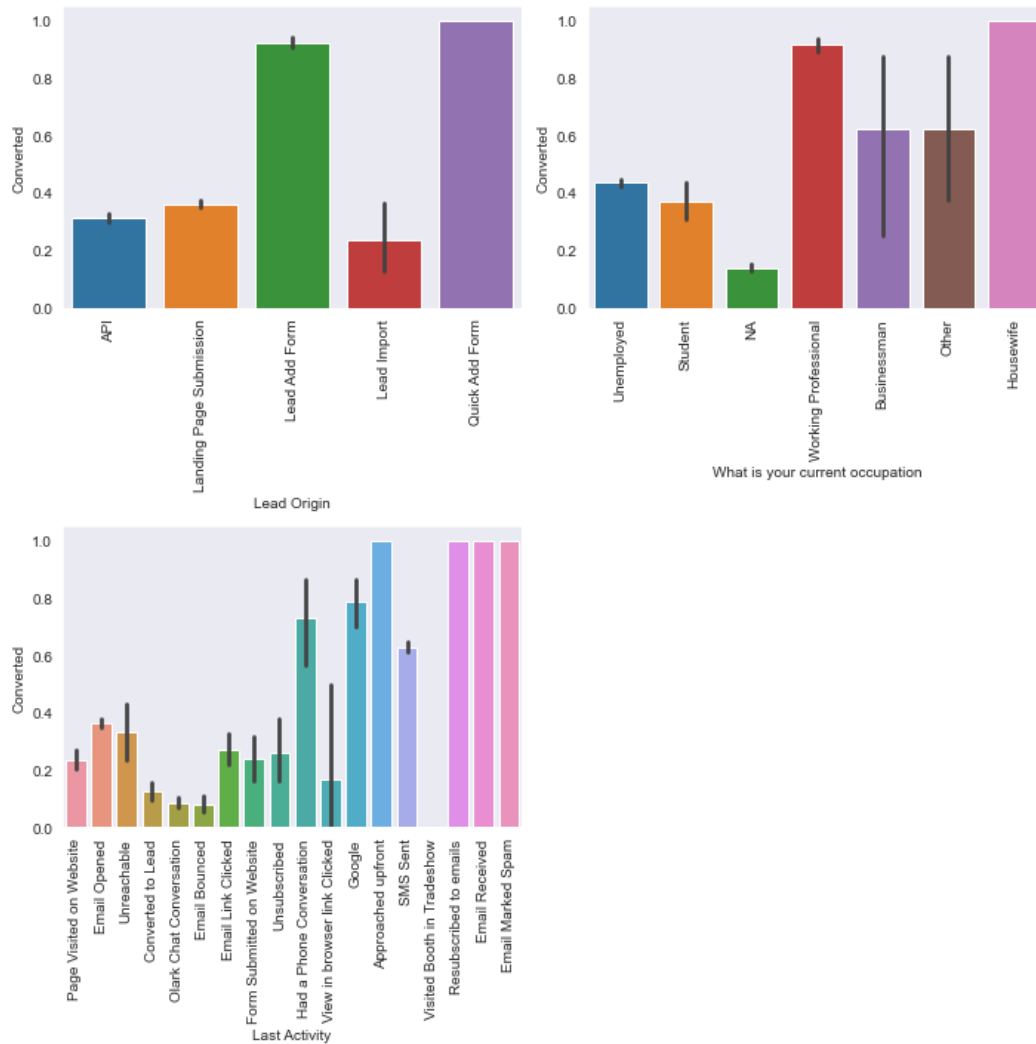
Dep. Variable:	Converted	No. Observations:	6468
Model:	GLM	Df Residuals:	6454
Model Family:	Binomial	Df Model:	13
Link Function:	Logit	Scale:	1.0000
Method:	IRLS	Log-Likelihood:	-2161.6
Date:	Sun, 05 Mar 2023	Deviance:	4323.3
Time:	17:06:51	Pearson chi2:	6.77e+03
No. Iterations:	6	Pseudo R-squ. (CS):	0.4836
Covariance Type:	nonrobust		

	coef	std err	z	P> z	[0.025	0.975]
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const	1.4827	0.195	7.596	0.000	1.100	1.865
Total Time Spent on Website	1.0521	0.044	23.748	0.000	0.965	1.139
Tags	0.0179	0.007	2.544	0.011	0.004	0.032
Lead Quality	-1.0473	0.045	-23.045	0.000	-1.136	-0.958
Asymmetrique Profile Index	0.1343	0.035	3.827	0.000	0.066	0.203
Asymmetrique Activity Score	0.7090	0.050	14.093	0.000	0.610	0.808
Asymmetrique Profile Score	0.1576	0.051	3.111	0.002	0.058	0.257
Lead Origin_Landing Page Submission	-0.5095	0.109	-4.657	0.000	-0.724	-0.295
Lead Origin_Lead Add Form	2.4765	0.209	11.825	0.000	2.066	2.887
Lead Source_Olark Chat	0.8050	0.135	5.966	0.000	0.541	1.069
Last Activity_Olark Chat Conversation	-1.6392	0.190	-8.609	0.000	-2.012	-1.266
Last Activity_SMS Sent	1.4649	0.085	17.219	0.000	1.298	1.632
What is your current occupation_NA	-0.9868	0.093	-10.595	0.000	-1.169	-0.804
What is your current occupation_Working Professional	1.6593	0.211	7.876	0.000	1.246	2.072
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- 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?

Lead Add Form (from Lead Origin)
 Had a Phone Conversation (from Last Activity)
 Working Professional (from What is your current occupation)

are the top three categorical/dummy variables that should be focused the most in order to increase the probability of lead conversion based on the coefficient values



- 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: As per our Model, sensitivity is the proportion of total actual conversions that were accurately predicted to the total number of real conversions. Similarly, the ratio of total real non-conversions accurately predicted to total actual non-conversions is known as specificity. High sensitivity means that practically all leads who are likely to convert will be appropriately identified by our model. It will achieve this by overestimating the possibility of conversion, misclassifying some conversion cases as non-conversions. We may now select a lower threshold value for Conversion Probability because X Education will have more personnel available for these two months and will want to convert practically all of the potential leads. Because of this, the sensitivity rating will be very

high and almost all leads that are likely to convert will be correctly identified, and agents will be able to call as many of these people as possible.

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: High specificity means that practically all leads who are not likely to convert will be appropriately identified by our model. To achieve this, it will misclassify some conversion cases as non-conversions, hence losing out to the competition on some dangerous low conversion rate leads.

Since X Education has already reached its quarterly goal and wants to reduce the number of unnecessary phone calls, they won't make calls unless absolutely necessary. We can select a higher Conversion Probability threshold value. This will ensure that the Specificity rating is extremely high, preventing almost all leads from being selected who are on the verge of being converted. They can concentrate on some new work instead of making unnecessary phone calls. As a result, the sales team's efficiency would rise and the conversion rate would be high. Additionally, the sales cycle will be reduced.