

1. Which are the top three variables in your model which contribute most towards the probability of a lead getting converted?
 - 1. Top Three Variables Contributing Most to Lead Conversion Probability: From the logistic regression model and PCA analysis, the top three variables that significantly contribute to the probability of a lead being converted are:
 - Total Time Spent on Website: The amount of time a lead spends on the website is a strong indicator of their interest.
 - Lead Source: The source through which the lead was acquired (e.g., direct traffic, email marketing, or social media campaigns).
 - Last Activity: The most recent activity of the lead, such as an email open, form submission, or other engagement.
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?
 - Lead Source (e.g., Google, Email, Social Media): Focusing on the most effective lead sources can enhance conversion rates.
 - Specialization (e.g., Business Management, IT): Understanding and targeting leads based on their field of interest can help tailor strategies.
 - Last Notable Activity (e.g., Email Opened, Call Attempted): Engaging leads based on their last notable interaction can improve responsiveness.
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.
 - Prioritize Leads Predicted as "1": Use the model predictions to identify the leads with the highest probability of conversion.
 - Implement a Tiered Follow-up System:
 - Tier 1: Leads with the highest probability should receive immediate follow-ups (e.g., phone calls within 1–2 hours of their activity).
 - Tier 2: Leads with medium probabilities should receive a combination of emails and calls.
 - Divide Interns by Lead Tiers: Assign interns specific tiers of leads based on their conversion likelihood, ensuring focused efforts.
 - Monitor and Optimize: Use daily dashboards to track conversion rates and adjust the strategy dynamically.

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.

-Implement a Threshold System:

Only call leads with probabilities above a very high threshold (e.g., 0.8 or 0.9).

Use Non-Intrusive Channels: For lower-probability leads, switch to non-intrusive methods like personalized emails or SMS.

Focus on High ROI Activities: Engage the sales team in cross-training, analyzing past lead performance, or creating new campaigns for the next cycle.

Refine the Model: Use this time to reassess and retrain the predictive model with updated data to improve future performance.