

## **Answering Business Questions:**

**Q1: Which are the top three variables in your model which contribute most towards the probability of a lead getting converted?**

### **Response:**

Based on the logistic regression coefficients, the three features with the most significant impact were:

1. Tags\_Closed by Horizon (Coefficient  $\approx 8.31$ )
2. Tags\_Lost to EINS (Coefficient  $\approx 7.49$ )
3. Last Notable Activity – Had a Phone Conversation (Coefficient  $\approx 3.80$ )

The first two are negative indicators, strongly reducing the chance of conversion, while the phone conversation variable acts as a positive driver, showing that direct interactions substantially increase conversion probability.

**Q2: What are the top 3 categorical/dummy variables in the model which should be focused the most on to increase the probability of lead conversion?**

### **Response:**

When focusing only on dummy variables, the following features emerged as the most important:

1. Tags\_Closed by Horizon
2. Tags\_Lost to EINS
3. Last Notable Activity – Had a Phone Conversation

These factors provide clear signals about customer intent. Reducing negative tags and encouraging personal engagement with leads can improve conversion rates significantly.

**Q3: X Education has a period of 2 months every year during which they hire some interns. The sales team 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 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.**

With interns supporting the sales team, the company can afford to cast a wider net. The goal here is to maximize recall so that as many potential leads as possible are included.

- Suggested Action: Lower the probability cutoff to around 0.3.
- Effect: A larger group of leads will be labeled as potential conversions.
- Business Outcome: Even though this may include some false positives, it ensures that very few genuine prospects are missed.

This strategy helps the sales team reach a broader pool of leads during the high-capacity phase.

**Q4: 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:**

At this stage, efficiency becomes more important than aggressive pursuit. The focus should shift towards precision, ensuring calls are made only to the most promising leads.

- Suggested Action: Increase the cutoff to around 0.7.
- Effect: Only the highest-probability leads will be classified as conversions.
- Business Outcome: Reduces wasted calls, minimizes effort spent on low-quality leads, and allows the sales team to focus on other tasks.

This approach makes the process more conservative while still maintaining high-quality interactions.

