

# Summary

The sole purpose of this analysis is to maximize the efficiency of conversion rate of new customers/student by analyzing their behavior. Data base contains many attributes nearly 35 which gives intense information about all the past students. With this analysis CEO of X Education expects the conversion rate as high as 80%.

We did 12 major steps in this analysis, and some are explained below with conclusion:

1. Data preparation:

- a. We did all the required data cleaning, converted Yes/No to 1/0, treated missing values and NaN values, dropped redundant columns.
- b. Treated 'Select' values as this are entries where customer has not given any choice and they are as like as null values.

2. EDA:

- a. Under categorical analysis few observations can be drawn:
  - i. Conversion rate for SMS sent is very high
  - ii. Those who do not provide specialization or occupation type, there conversion rate is very low

3. Model building:

- a. We build the model using Logistics Regression and kept a cut of best 15 variables.
- b. Then using RFI and VIF we run few models to arrive at best module.
- c. We created the prediction and started evaluating the model.
- d. We reached the accuracy of 81%.

4. ROC:

- a. With RCO curve we arrived at the cut off of 35%. This gives best results for accuracy, sensitivity and specificity of around 80%.
- b. On prediction set also we got accuracy, sensitivity and specificity of around 80-81%.
- c. For this model Precision is around 76% and Recall is around 73%.

5. Conclusion: Below pointers are major in converting so we can target these customers.

- a. The total number of visits made by the customer on the website.
- b. The total time spent by the customer on the website.
- c. Source of lead as Lead Add Form
- d. Major source for lead as Welingak Website
- e. Occupation as Working Professional
- f. Below pointers are not easy to convert hence we can drop these from our conversion list
- g. Those where Email bounced

## Summary

- h. Country other than India
- i. Olark Chat conversation
- j. With these variables X Education can have high chances of conversion with correct target customers.
- k.