X\_Education Case Study

Report

Summary of Analysis:

For doing the case study (X\_education) and building the logistic regression model we first put focus on based dataset and after doing the analysis part it is very much clear that if the company wants to increase it probability rate the column named “Converted probability” should be as much as can because it shows the conversion probability of the student.

“Converted probability” basically more depended on factors like lead source, lead reference, time spent and others columns having the low P-values that shows the significance of the columns. Whereas the VIFs of the columns shows that there is no collinearity among the columns.

After doing the model building process and evaluation metrices it shows that model has ‘Accuracy’ of 80%,specificity of 84% and sensitivity of 73% respectively means that **about 80% of leads gets converted** ,sensitivity shows “**proportion of actual positive cases that got predicted as positive “ and** Specificity is defined as the ”**proportion of actual negatives which got predicted as the negative**”.

So, doing the Logistic Regression there is significant growth in the “Conversion Rate” of the leads into the successful enrolment. Columns having the Data Imbalance should be ignored because it does not add any values to the case study scenario, having null values Therefore X\_Education company should put more focuses on the students with higher Probability for the better results.

Final Proposal:

* We can look upon the leads which are having higher conversion rate working persons are having good conversion rate, even references can be asked from people who already are student.
* People who have send more time on website should be more aggressively looked upon
* Total visits by an individual play’s important role
* Hot leads should be focused first with lead probability >0.33 and lead probability <0.33 are clod leads which should be looked be looked after hot leads.

*So, after doing the model building process and following the prescribed steps it is hopeful that there will be significant change in the ‘Conversion Rate” of the company and Company has a good amount of profit In it. therefore, model building plays an important role in redirecting the company approach towards the market.*