

# Summary

Upon performing Analysis for X-Education in order to derive ways for generating more leads to join their courses.

Data provided insights about total visits by customer upon generating leads, total time spent by them on the website, way they have reached website and conversation rate.

Steps included are:

- **Read and Understanding Data:** We have read and review with “Leads” dataset, understanding columns presenting it in using Lead dictionary sheet as reference. We got to know the columns having null values and data types of the variables presents in it.
- **Data Cleaning:** We had checked the total null values in each column, dropping one having high percentage of null values. After cleaning, 70% of data was left with which we had performed analysis.
- **Data Preparation:** EDA was performed via pair-plot and heatmaps to check the correlation. No outliers were found. Dummy variables were created for the categorical columns. Dataset was divided into train-test dataset (70-30%).
- **Model Building:** RFE was performed by starting with 15 variables. Logistics Regression approach was followed using p-value and VIF less than 5.0 and p-value less than 0.05 were retained.
- **Model Evaluation:** Model been evaluated upon test dataset, confusion matrix was prepared. Optimum cut off value had been found 0.42 and accuracy, specificity and sensitivity were found along with recall and precision.

## Inferences

- Initially there were a lot of leads generated, however only few came out as potential customers.
- We have to educate potential leads about product via constant communication.
- We have sorted out the best aspects from leads generated – ‘Total Visits’, ‘Total Time-Spent on Website’, ‘Page Views per Visit’ contributed most towards the probability of a lead getting converted.
- We should keep a list of leads being generated, in order to inform about newly launched courses, services, job offers and future higher studies.
- We shall monitor every lead to get response from their side, and must have provided offers that suits best for each lead according to the internet.
- We can focus on converting leads by holding a counseling session upon consulting with potential customer upon getting enrolled for course with X-Education.
- We can further inquire and consult with new leads to get determined with their intention and mentality for joining online courses.