LEAD SCORING CASE STUDY

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PROBLEM STATEMENT

► X Education has appointed you to help them select the most promising leads, i.e. the leads that are most likely to convert into paying customers. The company requires you to build a model wherein you need to assign a lead score to each of the leads such that the customers with a higher lead score have a higher conversion chance and the customers with a lower lead score have a lower conversion chance. The CEO, in particular, has given a ballpark of the target lead conversion rate to be around 80%.

APPROACH

► Reading the data

► Inspecting the Data

► Data Cleaning

► Exploratory Data Analysis

► Creating Dummy Variables

► Splitting the data set to Test and Train

► Scaling of Data

► RFE

► Model Building

► Model Evaluation

TECHNICAL ASPECTS OF CASE STUDY

► Under Categorical Variables, Select data is converted to NULL value.

► Column with missing value greater than 40% is dropped.

► For column with categorical data, NULL values are replaced by Mode value of the column.

► Outliers Treatment – Q1 – 5% and Q3 – 95%.

► train_size = 0.7, test_size = 0.3 of the complete dataset.

► Feature scaling done using StandardScaler.

► ROC curve (area = 0.88)

► The optimum value selected is 0.35.

- Comparing the values obtained for Train & Test:

  - Train Data:

    - Accuracy : 81.24%

    - Sensitivity : 80.7%

    - Specificity : 81.58%

  - Test Data:
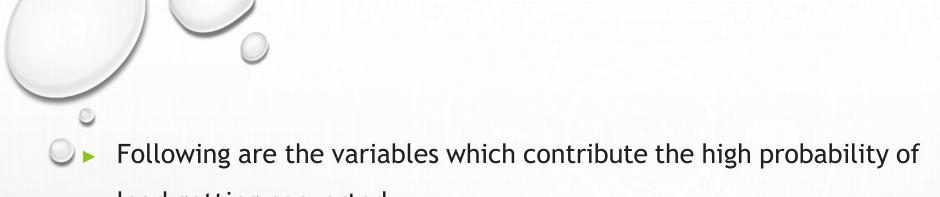
    - Accuracy : 80.20%

    - Sensitivity : 81.09%

    - Specificity : 79.70%

BUSINESS RELATED OBSERVATION

► The majority of the leads' most recent action was Email Opened.

► About 70% of leads with an SMS sent as their most recent activity converted.

► Maximum leads are generated from Unemployed but maximum lead are converted from Working Professional.

► Following are the categorical variables the have high probability of lead getting converted

    ► Lead Source

    ► Last Activity

    ► What is your current occupation

► Following are the variables which contribute the high probability of lead getting converted

    ► Lead Source_Welingak Website.

    ► Lead Source_Reference.

    ► Last Activity_Had a Phone Conversation

THANK YOU