**EXECUTIVE SUMMARY**

DSC630\_Predective\_Analytics

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Project: Telco Customer Churn

Customer churn is a major problem and one of the most important concerns for every company. Retaining an existing customer is many times more effective thanks gaining new customers. Generally, people only switch to a different company only when the service is not to the level of expectation in one or the other factor when compared to competitors, more than getting attracted to the specials and offers which are offered by the other companies. As the number of peoples who use a phone or a telecom product does not increase in huge volume, any company looking to improve the profits is trying to attract other company customers. At the same time retaining existing customers is very important. As retaining a current customer is ten times more productive than gaining a new one.

‘Big data’, ‘Predictive Analytics’ and ‘Machine Learning’ has gained popularity and with the latest emerging tools, complex mathematical algorithm can be applied on large datasets to discover data patterns which were not possible or would take huge amounts of resources in past days.

Using Predictive analytics as a study by using the past customer data in the Telecom industry, we can section out the pattern of the customers, who has churned out to a different company. We have built a model using multiple Machine Learning algorithms which can predict the customer churn with the accuracy of 77%.

Logistic Regression Model - Accuracy 76%

Random Forest Classifier Model - Accuracy 78%

Ada Boost Classifier Model - Accuracy 77%

By identifying such a section of people in the list of current active customers of the company, and addressing their issues, will help in reducing the number of customer churn to other companies.