INTRODUCE CUSTOMER CHURN PREDICTION MODEL FOR MOBITEL POSTPAID BUSINESS UNIT

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Abstract

Customer churn prediction is one of the most crucial missions for Mobitel to remain in the industry with long term sustainability. With the rising growth of churn, the customer churn problem has grown in significance in the organization in specific areas of products and services. One of the most critical challenges in the data and voice customers and mainly on the Postpaid service, thus reducing customer churn, by increasing customer satisfaction may be the outline of the company the concern is to which extent the satisfaction can be increased if no prediction is made. The aggressive market of the telecommunications industry has forced the service providers to employ the best data mining algorithms which produce most accurate prediction to stay competitive in the market. Many data mining algorithms have been reviewed and most popular algorithm in customer churn prediction has been used such as Logistic regression, Decision tree, Random Forest, Support vector Machine & Naïve Bayes to establish an innovative algorithm to produce better accuracy rate. Additionally, the enhanced methodology such as Data preprocessing, feature selection has been used to establish better results on the prediction. However, the accuracy performance of each method and theory used mainly due to the various Databases used using different attributes and different input variables chosen for the experiment in this document.

The proposed customer churn models used the historical customer data which become valuable over time for making predictions. Our proposed Mobitel Postpaid Churn Prediction Model via Random forest classification methodology proved its efficiency firstly based on various standard metrics; average precision for our model was 0.89, the average recall was 0.88, the average F1-score was 0.89 and the model accuracy was 88.77%.In this framework, we will try to obtain more historical data variables from Mobitel subscriber information & in addition, we will apply more data mining techniques such as text mining, classification algorithms etc. The use of social media mining & unstructured data mining has been practiced in this. Therefore, new methods to extract real-time customer satisfaction feedback must be proposed and used to predict customer churn.