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## **A business analytical model to analyse customer churn in mobile telecommunication industry in Sri Lanka**

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It is much important to an organization to identify the most affecting factors to lose their customers. This is a specific and practical problem for the group of organizations in telecommunication industry in all over the world. A mechanism should be implemented to early detection of the customer churn and prevention from the same. Attracting new customers is lot more difficult and expensive than retaining the existing customers, as it is well known. Most of the Telco service providers are concerned on customer retention, because most of the service industries founded on customer subscriptions, because network providing companies commonly depend on economies of scale and require a large number of customers to share the fixed costs. The primary objective of the study is to build a business analytical model to analyze and predict customer churn in mobile telecommunication industry in Sri Lanka. In order to do that the factors affecting for customer churn between networks has been focused. Researcher has identified five most influential factors which will impact on the consumer behavior in mobile market after a comprehensive literature review. Two models were derived for final test and evaluation; Binary logistic regression with accuracy of 95.8% and Naïve Bayes with accuracy of 92.7%. The model with the highest prediction accuracy rate has been selected as the final model to predict the customer churn possibility. Following a positivist methodology, the conceptual model was built and was verified by a survey. The answers were analyzed using traditional statistical techniques and state of the art business analytical – IT algorithms. It was found that there is no significant relationship between service quality, technology changes and customer churn, as the significant level of the above variables were higher than 0.1. Three factors; Price, inconvenience and influence have been identified as significant for customer churn between networks. Existed knowledge on the significance of churning factors has been extended from the current study. Customer churn should be addressed and treated as an important concern in the decision-making process since including the previous studies the current study found it held significant. The current study has contributed to filling the gap of analyzing customer churn in Telco industry in Sri Lanka and built a statistical model to predict customer churn which can be used by the mobile service providers.

**Keywords:** Customer churn, Mobile, Price, Service quality, Technology