

**Prioritizing Churning Customers by a Risk Level Analysis
using Machine Learning**

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Abstract

Customer churn in the telecommunication sector is a tendency of customers to cancel their subscriptions to a service they have been using and, hence, stop being a client of that service. Customer churn is one of the major aspects in most of the industries in the world. As the competition in each industry is high, the customers get the opportunity to leave the company at any time and join with another competitor in a very short period of time. The issue is attracting new customers are mostly than maintaining existing customers (Makhtar, M., Nafis, S., Mohamed, M.A., Awang, M.K., Rahman, M.N., & Deris, M.M, 2018) therefore industries have to work closely on customer churn to analyze customer behaviors. The proposed system is to prioritize churning customers by using a risk level analysis according to a predefined churning scale. Mostly the telecommunication sector is dealing with this customer churn as there are so many competitors out there with different marketing strategies to attract new customers from other service providers. With this competition the service providers need to maintain their customers without leaving or disconnecting their services.

Keywords: *Machine Learning, Support Vector Regression, SVR, Customer Churn, Risk Level, Telecommunication Sector*