

**PERSONALIZED CONTENT BASED PACKAGE
RECOMMENDATION MODEL FOR A
TELECOMMUNICATION COMPANY USING
MACHINE LEARNING**

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Abstract

In this research, the research and the implementation are on personalized content-based packages recommendation for mobile telecommunication subscribers. In fact, the subscriber will be recommended by items like the ones the subscriber preferred and used in the past. For the recommendation, there is a higher probability of commitment from the recent past data of 6 Months' time. Further one year and 6 months data is also committed towards the recommended results in a lesser probability rate. Accordingly, the recommended results should be the same as the actual results. In this research, the idea is to interpret a mobile content-based product recommender system for mobile subscribers to enhance their facilities. The area covered with the recommender system are recommender system in the telecom domain, considering data usage on different platforms and various content-based packages, and Comparison of algorithms to come up with the most matching result with the actual result.

Telecom operators provide their subscribers with useful services such as voice calls, video calls, SMSs, and data facilities etc. without which we can hardly imagine our lives anymore. Due to the huge product assortments and complex descriptions of telecom products, it is a great challenge for customers to select appropriate products. There are various service types and service items. With such a vast number of products and so complex description, it is becoming increasingly difficult for customers to find their favorite products quickly and accurately. It is important to develop a recommendation approach/ initiative to support customers in the selection of the most appropriate telecommunication products. The machine learning model built under this research is an ideal solution for the mentioned issue which encountered by many people in the world. To complete the research project, there are several tools and techniques used and as supportive tools there are some other tools were used which have less importance.

The prominent tools used to build main findings are MS Azure, Power BI, R Studio and Python. As main findings of this research project, there are three