

ABSTARCT

We have been witnessing digital music industry has been grown rapidly in recent years. One Innovation which helps this industry improving its customer satisfaction, customer loyalty, and customer engagement, is personalized recommendation system. It has not only been an interesting innovation in digital music service, but also in almost all digital services.

Telkomsel, the leader of the cellular industry in Indonesia, in order to transform into one of the biggest digital business services provider, would also like to compete in providing “On Demand Music Streaming Service” by launching its own brand, Langit Musik and personalized recommendation system is supposed to be one of the improvements which can be implemented on top of it. Unfortunately, this personalized recommendation was not successfully implemented. This research builds model to predict customer preferences for artists in Langit Musik service, to provide more personalized recommendations for each customer. This study applies an implicit preference from the amount of music listening for customers in period of 1 and 3 months, from Mobile Apps and Unstructured Supplementary Service Data (USSD).

The modeling uses a collaborative filtering approach with matrix factorization method and measure the model accuracy using Receiver Operating Characteristic / Area Under the Curve (ROC / AUC). The AUC value indicates the prediction quality of the model above prediction from random method. In addition, it was also concluded that the matrix factorization method provides advantages in resource efficiency. Author hopes that later on, the result of this research can be implemented and improves the customer experience, satisfaction, loyalty and engagement to Langit Musik.

Keywords— On Demand Music Streaming Service, Langit Musik, Collaborative Filtering, Matrix Factorization, Personalized Recommendation, Recommendation System.