

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 4, Issue 1, August 2024

## Recommendation System in E-Commerce Using Machine Learning Methods and Emotional Analysis

Maria Momin<sup>1</sup>, Zeenat Qureshi<sup>1</sup>, Ayesha Sayed<sup>1</sup>, Sana Shaikh<sup>1</sup>, Prof Dr. Ashfaq Shaikh<sup>2</sup> <sup>1</sup>Student, Department of Information Technology Engineering <sup>2</sup>Assistant Professor, Department of Information Technology Engineering M.H. Saboo Siddik College of Engineering, Mumbai, Maharashtra, India

Abstract: Amazon is an e-commerce website which is beneficial for commercial use. It makes use of commercial website easy, it is accompanied with ratings and review which makes it even more simpler to choose the product. There are all sort of rating, i.e positive, negative, neutral according the product rating is done, the procedure of review and rating are considered to be one of the most important part to reach customer expectations. It is important to analyze the product and recommend accordingly to satisfy user. Decision Trees, Random Forest are implemented to perform sentiment analysis on products based on the reviews given by the customer. It was seen that Random forest gave a higher accuracy of 88.87 percent in detecting the same. Amazon has changed and upgraded over years, It makes selling and purchasing of products online in an efficient manner. It secures the customer details, It also provides fast home delivery and good packing. We are using ensemble classifiers to provide accurate recommendations.

Keywords: Sentiment analysis, Collaborative filtering, Recommendation system

