# A STUDY OF INFLUENCE OF ONLINE PRODUCT RECOMMENDATIONS ON CONSUMERS'ONLINE CHOICES USING MACHINE LEARNING

#### **ABSTRACT**

In recent years, with the rapid growth of Internet technology, online shopping has become a rapid way for users to purchase and consume desired products. Among all possible advantages offered by electronic commerce to retailers, the capacity to offer consumers a flexible and personalized relationship is probably one of the most important. Online personalization offers retailers two major benefits. It allows them to provide accurate and timely information to customers which, in turn, often generates additional sales.

Personalization has also been shown to increase the level of loyalty consumers hold toward a retailer. This study investigates consumers' usage of online recommendation sources and their influence on online product choices.

## **ALGORITHM**

#### **Decision Tree**

The decision tree is termed to be Classification and Regression Trees. The paintings with the aid of mastering answers to a hierarchy of if/else questions main to a choice, those questions shape a tree-like structure and as a result the name.

• Random Forest Regression Method

The random forest regression method is a type of supervised learning and works based on a decision tree algorithm. Mostly used for solving regression and classification problems. This focused-on ensemble learning, combining many classified to solve complex problems.

## **IMPLEMENTATION**

In this Prediction, we use an interface and integrate it with Python programming. Python provides various libraries that come with different features for visualizing data. All these libraries come with different features and can support various types of graphs. In this tutorial, we will be discussing four such libraries.

- Matplotlib
- Seaborn
- Bokeh
- Plotly

This helps in the user interface for graphical representation and an easier method for prediction.