## **ABSTRACT**

Online Travel Agent is a travel agent services that all forms of services and purchases are made online. The most popular online travel agents in Indonesia are Traveloka, Tiket.com and Pegipegi because of the services and publications provided by the OTA. Although the 3 OTAs are a popular and often used in the community, of course they are not spared from various complaints from users. This is an interesting material to study as an evaluation and to improve the quality of company services to maintain their position as brand leaders in the online travel agent industry. The data in this study were taken from user reviews on the Google Play Store. This research population is all user reviews regarding Traveloka, Tiket.com and Pegipegi services. The sample used in this study was user reviews obtained for 1 year from November 2018 to November 2019. The raw user review data obtained were 6.564 reviews.

This study uses sentiment analysis and multiclass classification methods. The classification models used are Naïve Bayes, Support Vector Machines and K-Nearest Neighbors, these three classifications are used to compare the level of accuracy and review the classification models that are best for the dataset. From the sentiments obtained, it is known that Traveloka has good e-service quality in the website design dimension, but it lacks in other dimensions. Tiket.com has good e-service quality on the dimensions of website design, reliability, security, and information, but it lacks in responsiveness, fulfillment, personalization, and empathy. Pegipegi have good e-service quality on the dimensions of website design, reliability, security, personalization and balanced in empathy, but lacking in responsiveness, fulfillment, and information.

Keywords: E-Service Quality, Multi-class Classification, Machine Learning, Online Travel Agent, Service Quality, Sentiment Analysis, Text Mining