

## ABSTRACT

The development of e-commerce in Indonesia is increasing, now make e-commerce as the land of very large data. The data is also used not only as a content in e-commerce, but with the existence of Web Mining, the data is processed in such a way that will generate new information to be utilized in system development. One of usage of Web Mining is Web Usage Mining which is one technique to analyze user activity pattern in a website recorded in server log. The data that can be used for Web Usage Mining is server log data that contains session information from users and session query logs that contain user query session information. In this final task will utilize session query log data (external web usage mining). By using density-based *Clustering* method, this final project implemented a development algorithm from OPTICS (Ordering Points to Identify the *Clustering* Structure) algorithm, namely AD-OPTICS (Adaptive Ordering Points to Identify the *Clustering* Structure).

The input of the system in this final project is the user's log dataset obtained from a backlink checker site that is ahrefs.com, the dataset is a list of keywords, links, and other numerical data crawling the system to the number of searches performed by users on a search engine on some Ecommerce. Ecommerce taken backlink dataset is 5 major e-commerce in Indonesia among them are Bukalapak, Elevenia, Lazada, Tokopedia and OLX. The result of the research is in the form of groups of items that are often sought by users along with the purity value of the formation of the item group (purity *cluster*). From the research, the group of items that are often searched by users are 'mobil bekas', 'hard disk eksternal', and 'ponsel' with the biggest purity value of all test is 0,00565.

**Kata Kunci** : *Web Mining, Web Usage Mining, Density Based Clustering, OPTICS, AD-OPTICS, query log.*