## ABSTRACT

The problem that occurs in every country is poverty which even occurs in Indonesia. Each country has developed technology to predict poverty levels in each region. One of the methods used to predict poverty in Indonesia is conduct a survey. However, the survey process takes a long time and use a lot of human resources. Then a poverty prediction application were developed using data from one of the e-commerce sites in Indonesia by utilizing transaction data that occurs in it. By using one of machine learning algorithm this application will be able to predict poverty levels from ecommerce data. The chosen machine learning algorithm is Support Vector Machine and feature selection that used to select relevant features for predictions is Statistical-Based feature selection. This application will help complete the survey data conducted by the Badan Pusat Statistik in handling poverty survey in Indonesia in a more efficient way with more accurate result.

Keywords: Machine Learning, Poverty, E-Commerce, Prediction