

Abstract

Poverty is a complex problem that remains a major challenge in Indonesia, with far-reaching impacts on people's welfare. This study aims to classify the depth of poverty using two machine learning models, namely Support Vector Machine (SVM) and Logistic Regression, and identify factors that significantly influence it. The dataset used includes socio-economic variables from various regions, such as Social Assistance, Average Years of Schooling, and Total Population. The analysis showed that both SVM and Logistic Regression models produced high classification performance, with 99% accuracy. Logistic Regression in this study was used to determine the factors that significantly influence the depth of poverty through a statistical significance test approach. The Logistic Regression shows that the three most significant variables are Social Assistance, Regional Original Income, and Average Years of Schooling. These findings are expected to be the basis for developing more targeted policies in poverty alleviation efforts in Indonesia.

Keywords: Data Analysis, Logistic Regression, Poverty depth index, poverty, Support Vector Machine