

## ABSTRACT

Public welfare is a key indicator of a nation's development as it reflects individuals' quality of life in meeting basic needs and participating in society. Development disparities between regions and limited infrastructure pose significant challenges in improving public welfare. One statistical method to analyze the complexity of dimensions affecting welfare is Structural Equation Modeling (SEM) with the Partial Least Squares (PLS) approach. SEM usually assumes a homogeneous population, in practice, the population often consists of several different segments. The method to detect heterogeneity is Partial Least Squares-Prediction Oriented Segmentation (PLS-POS). This study aims to build a structural model that describes the relationships between education, housing, health, employment, and welfare in Central Java Province based on 19 valid and reliable indicators. The results of SEM-PLS show that housing has a significant positive effect on health, education has a positive effect on employment and welfare, housing and employment have a significant negative effect on welfare, and health has a positive effect on welfare. Grouping regions using PLS-POS resulted in three segments with different characteristics. Each local model shows higher  $R^2$  values and better Goodness of Fit compared to the global model, indicating that the local model has better model goodness.

**Keywords:** Public welfare, SEM, PLS, PLS-POS