

ABSTRACT

Voter turnout is a key indicator of democracy as it reflects political legitimacy. In the 2024 Presidential Election, voter turnout in Central Java Province remained relatively low compared to other provinces in Indonesia and showed regional disparities. This study analyzes the influence of four socioeconomic factors: mean years of schooling, adjusted per capita expenditure, poverty rate, and open unemployment rate on voter turnout across 35 regencies and cities in Central Java. The Possibilistic C-Regression (PCR) method was applied to address the limitations of multiple linear regression in identifying hidden subgroup structures. Results indicate that linear regression explained only 57.62% of the variation, while PCR identified two optimal clusters with an average weighted coefficient of determination exceeding 89%. Bootstrap testing confirmed variations in the effects of socioeconomic factors across clusters. In the first cluster, the open unemployment rate had a significant negative effect on voter turnout. In the second cluster, turnout was influenced by a combination of mean years of schooling (positive) and the open unemployment rate (negative). These findings highlight the importance of a cluster-based approach to understanding the socioeconomic dynamics shaping voter turnout and provide insights for designing more effective regional policy strategies.

Keywords: *Possibilistic C-Regression, Voter Turnout, Socio-economic Factors, Election, Central Java*