MULTIGROUP STRUCTURAL EQUATION MODELING WITH PARTIAL LEAST SQUARE ON STUDENTS’ MATHEMATICS LEARNING OUTCOMES OF PUBLIC JUNIOR HIGH SCHOOLS IN KENDARI

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ABSTRACT

In cases of social, economic, health and education often want to see a difference of two or more groups of samples. Suppose that in the case of education want to compare the learning outcomes of students in public schools and private schools that involve variables with a relatively complex set of relationships, where there is an indicator variable that is measured directly and latent variables that cannot be measured directly. Such cases can thus be analyzed using analysis of Multigroup Structural Equation Modeling (Multigroup SEM). But in practice, all variables are often still treated as a continuous variable, it is not justified. As with ordinal data, which should not be treated as ordinal data as continuous data, as well as with nominal data. Structural Equation Modeling with Partial Least Square (SEM-PLS) is a method of analysis that can overcome these limitations. SEM-PLS can be used for various scales of measurement data. Besides, it can be used for small sample size and it does not require multivariate normal distribution. This study will be conducted in class IX Junior High School (SMPN) in Kendari which are divided into two groups based on school accreditation namely SMPN with accreditation A and accreditation B. The analysis shows that there are basic knowledge of mathematics and family socioeconomic status significantly to mathematics learning outcomes of students in SMPN with accreditation A and accreditation B. However, for students in the SMPN accredited B, a basic knowledge of geometry and measurement is known to have no effect on math learning outcomes. Multigup comparison of test results, known only the influence/contribution of socio-economic status of students towards mathematics learning outcomes that shows the differences in both the level of the school. Value of $R^2$ in each of SMP overall are known still relatively moderate, even in SMPN accredited B tends to approached weak. This may indicate the presence of factors/variables other than the study which involved explaining the variability of each of the latent endogenous.

Kata kunci: Mathematics Learning Outcomes (HBM), Multigroup SEM-PLS, Basic Knowledge of Mathematics (PDM), Multigroup SEM, family socioeconomic (SEK).
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