ABSTRACT

Multigroup Analysis of Structural Equation Modeling (SEM) Health Status of Children Under Five in Indonesia (RISKESDAS 2007)

Multigroup SEM analysis is the analysis of the model on the basis of more than one sample, which aim to determine whether the component or the measurement model and structural model invariant for the two groups of samples. Public health status can be described by some indicators such as mortality, morbidity and nutritional status. Health status in children under five can be affected by the living environment, health care and behavioral health. This study aims to analyze Multigroup Structural Equation Modeling (SEM) on the health status of children under five in the district and the city of Indonesia. This study used secondary data obtained from the Riskesdas 2007. The sample size used in accordance with the number of design Riskesdas 440 cities and regencies in Indonesia. Analyses were performed using AMOS software. The results showed that the coefficient between environmental variables with the health status of children under five in districts is -0.079 (p-value 0.040) and in the cities is -0.209 (p-value 0.033). The coefficient between health services with the health status of children under five in districts 0.677 (p-value 0.000) and in the cities of -0.517 (p-value 0.000). The coefficient between health behavior with health status of children under five in districts is -0.036 (0.367) and in the cities areas of -0.251 (p-value 0.030). Assumption of multivariate normal both districts and cities have achieved with scatterplots are near to the diagonal line. Determinant of the covariance matrix away from zero so that it meets the assumption of multicollinearity. The conclusion of this study based on comparison of chi-square among unconstraint model with six baseline models provides significant p-value at the 5% therefore two groups of samples especially the health status of children under five was different in districts and cities.

Keywords: multigroup structural equation modeling (SEM), health status, children under five.