ABSTRACT

Measurement Model of Public Health Development in Province of Sulawesi Tengah Using Bayesian Confirmatory Factor Analysis

Confirmatory Factor Analysis (CFA) is a multivariate analysis technique used to test a measurement model. The estimation method used was Bayesian method because the sample size was very small, 11 districts. The aim of this study was to analyze Bayesian CFA model of Public Health Development of districts in province of Central Sulawesi. This was a non-reactive study that used secondary data obtained from IPKM 2013 published book. Research analysis unit was district in Central Sulawesi.

The results showed the indicator variables of public health development latent variables had factor loading values more than 0.5 and the value of posterior probability interval 2.5% to 97.5% did not contain zero value, showing all indicator variables significant to measure latent variables. Variables with the most contribution to latent Toddlers Health were Overweighted Toddlers and Neonatal Visits (KN1) with values of factor loading 1.45. Variable with the most contribution to latent reproduction health was Chronic Energy Deficiency in Women of Fertile Age (KEK on WUS) with a factor loading value 7.51. Variable with the most contribution to latent Health Care was ownership of health care insurance (Jaminan Pelayanan Kesehatan/JPK) with a value of factor loading 1.631. Variable with the most contribution to latent Behavioral Health was properly defecate behavior with a value of factor loading 1.264. Variable with the most contribution to latent Non Communicable Diseases was Diabetes mellitus with a value of factor loading 1.638. Variable with the most contribution to latent Communicable Diseases was Diarrhea in toddlers with a value of factor loading 1.303. Districts with the highest factor score in public health development was district of Poso, while district of Banggai Kepulauan has the lowest score.

Keywords: IPKM, Bayesian confirmatory factor analysis, factor score.