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The Effect of Institutions on Economic Growth: An Analysis Based on Bayesian Panel Data Estimation

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Abstract : This study investigated panel data regression models. This paper used Bayesian and classical methods to study the impact of institutions on economic growth from data (1990-2014), especially in developing countries. Under the classical and Bayesian methodology, the two-panel data models were estimated, which are common effects and fixed effects. For the Bayesian approach, the prior information is used in this paper, and normal gamma prior is used for the panel data models. The analysis was done through WinBUGS14 software. The estimated results of the study showed that panel data models are valid models in Bayesian methodology. In the Bayesian approach, the effects of all independent variables were positively and significantly affected by the dependent variables. Based on the standard errors of all models, we must say that the fixed effect model is the best model in the Bayesian estimation of panel data models. Also, it was proved that the fixed effect model has the lowest value of standard error, as compared to other models.

Keywords : Bayesian approach, common effect, fixed effect, random effect, Dynamic Random Effect Model
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