Spatial effects can be divided into two types, spatial dependence and spatial heterogeneity. Spatial dependence due to the dependencies in the regional data. While spatial heterogeneity due to the differences between one region with another region. Spatial model has the effect of spatial dependencies that can be divided into a model of spatial lag and spatial error. Interactions between spatial units in the panel data also have a dependent variable spatial lag or spatial error process in which usually called spatial lag model and spatial error model. Each model can be applied with a fixed effects or random effects.

Testing the existence of region effect and spatial error correlation as well as determine whether fixed effects or random effects are appropriate for use in panel data regression model is very important because it ignores two things will lead to inefficient estimates and conclusions obtained are not precise. The study of spatial panel data usually choosed a model by trial and error, which is not efficient, and to avoid research that less effective and efficient in terms of choosing a fixed effects model or random effects, this study tries to formulate an algorithm and program to facilitate the selection of fixed effects or random effects on spatial econometric panel data.

Programs that have been made applicable to the selection of fixed effects or random effects in modeling index gini ratio province on the island of Java with the result that the spatial lag premises fixed effects model and spatial error model with a fixed effects model coul be applied.

Key words: Data Panel, spatial lag model, spatial error model, fixed effects, random effects