



Spatial Modelling of Disparity in Economic Activity and Unemployment in Southern and Oromia Regional States of Ethiopia

Berisha Mekayhu Gelebo (MSc)*

Arba Minch University, Department of Statistics

Arba Minch, Ethiopia

Email: ber_mekayhu@yahoo.com.

Ayele Taye Goshu (PhD)

Hawassa University

Hawassa , Ethiopia

Email: ayele_taye@yahoo.com,

Growth of productivity is the precondition to improve the living standard of people and maintain competitiveness in the globalized economy. However, wide regional deferential in labor force implies inefficiency as whole and might affect both aggregate unemployment and national output. The basic goal of this study was to model disparity in economic activity and unemployment in Southern and Oromia Regional States of Ethiopia, by incorporating spatial effects. Population and Housing Census data for 381 districts were used. The exploratory spatial data analysis, OLS regression model, and spatial econometric models were employed. The exploratory spatial data analysis results revealed that both economic activity and unemployment rates in a given district were directly affected by those of its neighbors. Economic activity and unemployment rates for males and females also spatially depended on that of neighboring districts. Spatial autocorrelations between unemployment and economic activity rates is negative. In modeling aspect, relying on specification diagnostics and measures of fit; spatial lag model was found to be the best model for modelling both economic activity and unemployment rates. The modelling results revealed that both estimates of spatial autoregressive parameters indicated the existence of spatial spillover in economic activity and unemployment rates. Spatial lag model analysis also demonstrated that average number of persons per household, crude birth rate, female and male unemployment rate were significant factors of economic activity rates. The factors, percentage of urban population, economic inactivity rate, percentage of self-employed population, percentage of unpaid family employers, and average number of persons per household were found as being factors behind disparities in unemployment rates across regions districts. In conclusion, as expected the economic activity and unemployment variables had the nature of correlation over space. It is recommended that most effective policy mix is required for stabilizing and alleviating disparity in both economic activities and unemployment of the districts considered in the regions.

Keywords: autocorrelation, spatial dependence, neighbouring districts, spillover