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Analysis of Gender Differences in Household Poverty in Turkey: Bayesian Probit Model / Türkiye’de Hanehalkı Yoksulluğunun Cinsiyete göre Analizi: Bayesyen Probit Modeli

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ABSTRACT

The aims of the study are to investigate the determinants of household poverty in frame of the poverty status using bayesian approach and to compare the gender differences of household poverty for the period of 2006 and 2013 in Turkey. For these aims, the data is obtained from Turkish Household Budget Survey prepared by Turkish Statistical Institute. This paper is the first study, as far as the authors know, which applies bayesian approach for dichotomous probit regression to examine the household poverty. In the study, determinants of poverty are analyzed using Bayesian probit regression. The key of the Bayesian probit regression is that estimate the posterior probability distribution matching prior probability distribution and likelihood function of the probit regression model. In this study, Gibbs sampler is used to compute the posterior distribution and estimations are made using R program and Zelig packages. Bayesian probit model is used to analyze quantitative data reflecting a choice between two alternative situations, being considered as poor or non-poor. The model measures the relation between demographic and socio-economic characteristics of household heads, (which are the explanatory variables) and their poverty status.

KEYWORDS Poverty; Household Poverty; Bayesian Probit Regression

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