

Examining the Relationship Between Human Development Index and Socio-Economic Variables: A Panel Data Analysis

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Abstract — Human Development Index (HDI) measures the average achievements from three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. This study is to investigate the impact of socio-economic variables represented by the three dimensions i.e. mean years of schooling, expected years of schooling, gross domestic product, life expectancy and health expenditure on HDI in fifteen selected developing countries within a 5-year period (2010-2014). The panel data analysis tested the pooled regression model, fixed effects and random effects models. The findings indicated that the Panel Fixed Effects Model (FEM) has proven to be the best model to describe the study. From the FEM model, four predictors have shown significant positive effect on human development index which are, the mean years of schooling, expected years of schooling, life expectancy and GDP per capita whereas, health expenditure is the only variable that shows insignificant relationship. Hence, it can be stated that in these fifteen selected nations despite education and higher GDP are essential to achieve a higher level of HDI, life expectancy is also perceived as a vital indicator to imply a better level of HDI.

Keywords: *Human Development Index, Panel data, Fixed effects model, Random effects model*

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