

ABSTRACT

Maintaining a reliable and resilient energy supply is a constant challenge for every country. Energy is the backbone of the economy and an important element for economic growth and reducing poverty. Disruption to energy supply can affect the growth and economic development of a country. Thus increasing energy security is important given the increasing number of global population and the rate of economic growth. This study aims to examine the effect of energy security on economic growth in ASEAN + 6 countries, in 2007-2015.

Panel data and fixed effect models are used in this study, and used robust techniques for heterogeneity and autocorrelation problems. Also, 9 measures of energy security are used to cover the 5 dimensions of energy security, availability, accessibility, acceptability, affordability, and expandability.

The results showed that capital and energy security variables (consumption, and use of non-fossil energy) had a positive and significant impact on economic growth. Meanwhile, energy insecurity measured using energy intensity, carbon intensity, oil price volatility, and dependence on importance shows an unfavorable impact on the economy. This means that there is a need for the development of diversification from non-fossil energy, especially to meet energy consumption needs, reduce the amount of emissions, and to reduce the negative impact of price volatility and dependence on impacts. These findings indicate that economic development, and energy security are integrated themes and are important agendas for the world.

Keywords: energy security, economic growth, ASEAN + 6, panel data