

ELECTRICITY CONSUMPTION AND ECONOMIC GROWTH NEXUS: EVIDENCE FROM 21 AFRICAN COUNTRIES

Onakoya, Adegbemi Babatunde¹ and Muhammad Maimuna Yakubu²

¹Department of Economics, Babcock University Ilishan-Remo

²Department of Economics, Nigerian Turkish Nile University Abuja, Nigeria

Corresponding Author's email: gbemionakoya@gmail.com



DOI:

ABSTRACT

This study examined the impact of electricity consumption on economic growth in 21 African countries. Prior to the estimation of the model, the study conducted a preliminary review of the nature of the data using descriptive statistics. The panel unit root tests using the Levin, Lin and Chu test; Augmented Dickey Fuller test; and the Im, Pesaran, and Shin test were also conducted. Thereafter, the long run relationship between the variables was examined after optimally selecting the order lag. This panel cointegration test was done using the Residual-Nased DF and Augmented Dickey Fuller tests also known as the Kao test, Perodni cointegration test and the Johansen Fisher cointegration test. The Toda Yamamoto causality analysis was also conducted to ascertain the direction of causality between the variables. The findings of this study showed a stable long-run relationship between electricity consumption and economic. In line with the Growth hypothesis electricity consumption granger causes economic growth in African countries. However, the consumption of electricity was not granger caused by economic growth. Governments are enjoined to join forces with the private sector for the development of electricity infrastructure in order to boost its consumption and consequently, economic growth

Key words: Economic Growth, Electricity Consumption, Toda Yamamoto causality test, Panel cointegration