

IS ENERGY CONSUMPTION RELEVANT TO INDUSTRIAL OUTPUT IN NIGERIA?

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ABSTRACT

This paper investigates the contribution energy consumption on output of industrial sector in Nigeria. Time series data from the period of 1980 to 2013 on energy consumption and industrial output was employed. The error correction mechanism was used to analyse energy consumption (oil consumption, gas consumption, electricity consumption and coal consumption) and the output of industrial sector in Nigeria. In addition to the explanatory variable is carbon dioxide emission from the use of energy in Nigeria. The result of the ECM shows that all the variables used in the study are characterised with a positive trend. The study provides some evidence in support of long-run relationship between energy consumption and industrial output in Nigeria. The ECM result provides strong evidence in support of convergent relationship between energy consumption and industrial output in Nigeria. The study reveals that the entire variable contributed positively to industrial output in Nigeria. The estimated coefficient of carbon dioxide from the use of energy supported the view of Dasgupta (2002) and Stern (2002) that there is a proportional relationship between energy used by industry and carbon dioxide emission. The study finally recommends that government should strictly monitor the implementation of the policy of 2003 for the growth of industrial sector in Nigeria. For better policy formulation and implementation, this study recommends that government agencies responsible for data collection should improve on the collection of current data for research.

Keywords: Energy consumption, industrial output, error correction mechanism.