

ENERGY DEMAND AND COOKING ENERGY COST IN AN OIL-RICH ECONOMY: A NEW EVIDENCE FROM NIGERIA

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Abstract: According to several recent studies, energy is seen as a commodity, due to the fact that energy sector markets are more like commodity markets. Essentially, it serves as an enabler of social and economic development and so cannot be neglected. This study, therefore, estimated the impact of cooking energy cost on energy demand in Nigeria using the ARDL model and quarterly data spanning from 1990-2018. The result from the study showed that in the long-run both liquefied petroleum gas (LPG) price and kerosene price has a negative impact on energy demand. In the short-run, the result remained the same for kerosene while it reversed for LPG. The study, therefore, recommended that government should enact policies that will moderate or minimize the cost of cooking energy and enhance the removal of all forms of barriers in making cooking energy affordable to users in the country.

Keywords: Energy, Cost, Demand

JEL Classification: Q41, R22

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1. Introduction

According to several recent studies, energy is seen as an essential commodity that serves as an enabler of social and economic development, and it cannot be neglected (Kroom, Brouwer and Beukering 2012). Over 4 billion people depend on energy across the globe. This has over time led to rising demand for energy products across the world as the global population is on the rise coupled with the discoveries of new uses for these energy products.

Aside from the industries and transportation sectors, the households are the main consumers of these energy commodities, mostly for cooking and other domestic purposes. For instance, the U.S. Energy Information Administration, Monthly Energy Review for (2018) revealed that among the various sectors that made up the economies, between 2014 to 2018 all being key users of energy commodity, that the household being behind the industrial and transportation sector utilizes more energy than other sectors of the economy in each of the years considered. For the year 2018, household energy consumption was at the ton of 21,651 trillion being 21.40% of overall energy consumption for that year. The report further showed a significant rise in energy consumption each year. These, no doubt are directly or indirectly among the many causes of the prevalent energy crisis at the global level. This crisis manifest itself in the form of shortages in the supply of energy across the world's energy market when compared to demand, and the accompanying rising cost.

In Africa, the situation is the same, as the energy crisis co-exists with the energy paradox for countries richly endowed with energy resources. Kroom, Brouwer, and Beukering (2012) noted that about 90 percent of households in developing countries depend on biomass, and with Africa being the home continent of the majority of the developing countries where most of the world's poorest households come from, the impact of the crisis is strongly felt

Though energy is reckoned as an essential good in all sectors of a country's economy (Ogbuabor, Orji, Manasseh and Nwosu, 2018; Oyedepo, 2012), a peep into the Nigerian energy market reveals the prevailing crisis especially for cooking energy commodities. This may not be unconnected with the ever-increasing population which stands at about 198 million people presently, whereas the supply of cooking energy rises at a rate that is far below the demand. While the Nigerian population forms about 2.35% of the world's population, the growth rate is around 3.2% and living costs keep rising daily. These two jointly account for a greater percentage of the rise in the demand for energy commodities (World Bank, 2018).

According to Ohimain (2012), the major cooking fuels in Nigeria are fuelwood and kerosene, which constantly face supplying difficulties; instabilities in price; and imposes safety, environmental and health challenges on man. In urban cities,