ENERGY TRANSITION, ENVIRONMENTAL QUALITY, AND FINANCIAL DEVELOPMENT IN NIGERIA: AN EMPIRICAL ANALYSIS

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ABSTRACT

This study investigates the dynamic relationship between renewable energy consumption and financial development in Nigeria from 1990 to 2023. Against the backdrop of Nigeria's significant energy poverty, underutilized renewable resources, and a growing yet challenged financial sector, the research aims to determine the nature of the nexus between these two critical variables. Employing a quantitative research design and the Autoregressive Distributed Lag (ARDL) bounds testing approach, the study analyzes annual time series data on financial development (proxied by domestic credit to the private sector), renewable energy consumption, economic growth (GDP per capita), and CO_2 emissions.

The empirical results confirm a significant long-run cointegrating relationship among the variables. The findings reveal that renewable energy consumption has a positive and statistically significant impact on financial development in the long run, suggesting that investments in clean energy technologies act as a catalyst for deepening financial markets. Economic growth also exhibits a strong positive effect on financial development. In contrast, CO_2 emissions show a marginally significant negative relationship, indicating that environmental degradation may slightly erode investor confidence.

The study concludes that renewable energy adoption is not only an environmental imperative but also a financial catalyst for Nigeria. It recommends the integration of financial sector reforms with energy policies to enhance credit availability, attract green investments, and foster a sustainable economic transformation. Strengthening the financial system is thus crucial for scaling up renewable energy technologies and achieving inclusive long-term development.

Keywords: Renewable Energy, Financial Development, ARDL, Nigeria, Sustainable Growth, CO_2 Emissions.