STATISTICS OF RENEWABLE ENERGY ON GREEN GROWTH IN EMERGING MARKET ECONOMIES

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Received: 03.11.2025
Revised: 04.11.2025
Accepted: 05.11.2025

Key words:
renewable energy generation, energy consumption, economic growth, sustainable development, green economy.

Annotation. Furthermore, our findings from short-run coefficients of clean energy stock prices have a significant positive affect on green economy stock prices under the selected Asian, European and U.S markets. Change in renewable energy generation stock prices have a negatively insignificant impacts on Asian and European green economy stock prices. However, short-run coefficients of renewable energy generation negatively and positively impacted on green economy stock prices of U.S market. In addition, the Wald tests results shows that the green economy stock price adjustment is running towards the long- and short-run steady increment regarding positive and negative shocks in renewable energy generation and clean energy. As these economies strive for rapid economic growth, they are increasingly confronted with the need to address environmental concerns, resource depletion, and the challenges of climate change. Renewable energy, derived from naturally replenishing sources, has emerged as a vital tool in this pursuit, offering a path towards green growth.

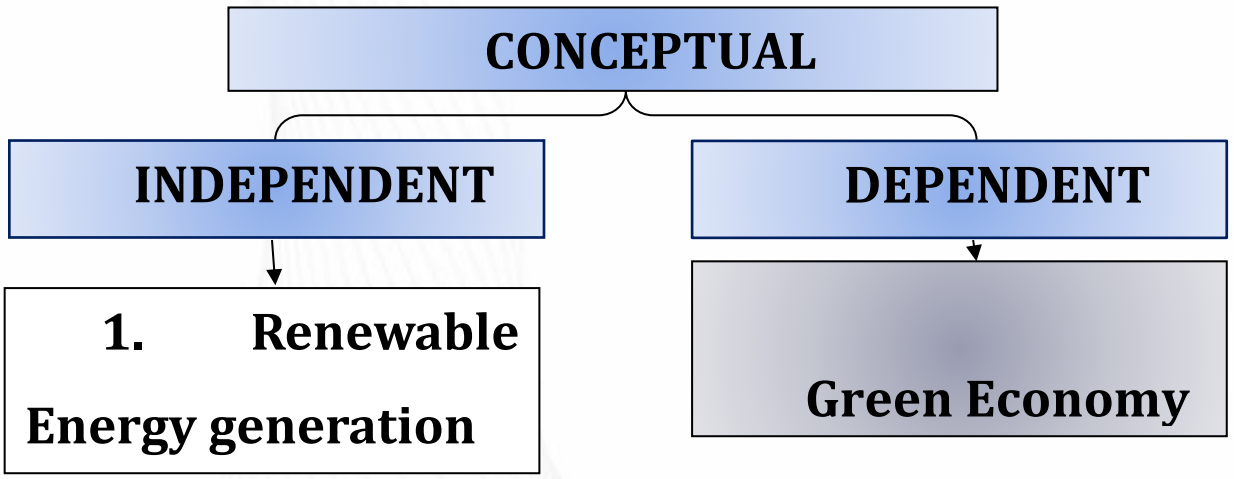
Introduction. Recently, some scholars focused on the investigation of the relationship between renewable energy consumption, economic growth, and sustainable development. For instance, Hassan and Chinedu (2021) found that, the environmental sustainability through a reduction of emissions may not be towards achieving an all-inclusive development for Africa. On other hand, provides empirical support to the important role of economic growth and non-renewable energy prices in the renewable energy transition in Europe (Li and Leung, 2021).

Alam and Murad (2020) found that economic growth positively affected renewable energy consumption in the long term, but negatively in the short run in OECD countries. Rahman and Velayutham (2020) stated that there existed a unidirectional causality from economic growth to renewable energy consumption in South Asia. However, bidirectional causality between renewable energy consumption and economic growth was accured by Apergis and Payne (2020), Belaïd and Zrelli (2019).

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1. The Global Context: A Rising Tide of Renewable Energy

Globally, renewable energy deployment is experiencing a rapid surge, driven by factors such as declining costs, increasing policy support, and growing concerns about climate change. According to the International Energy Agency (IEA), renewable energy sources accounted for over 28% of global electricity generation in 2022, exceeding coal for the first time. This trend is expected to continue, with renewable energy projected to be the largest source of electricity generation by 2025.



EMEs are playing an increasingly significant role in this global renewable energy revolution. Their rapidly growing energy demand, combined with increasing environmental awareness and policy support, has created favorable conditions for renewable energy deployment.

- **Installed Capacity:** The installed capacity of renewable energy in EMEs has grown dramatically in recent years. According to the International Renewable Energy Agency (IRENA), in 2021, EMEs accounted for over 60% of global renewable energy capacity additions, highlighting their rapid adoption of clean energy technologies.
- **Investment Trends:** Renewable energy investments in EMEs have surged, driven by government policies, declining costs, and increasing private sector interest. The Climate Policy Initiative estimates that EMEs attracted over 50% of global renewable energy investments in 2022, demonstrating their growing commitment to clean energy development.
- **Renewable Energy Sources:** The mix of renewable energy sources varies across EMEs, reflecting their specific resource endowments and policy priorities. Solar energy is particularly popular in regions with abundant sunshine, while wind energy is prevalent in areas with strong wind resources. Hydropower remains a significant source of renewable energy in countries with extensive river systems.

Conclusion. The statistical landscape of renewable energy deployment in EMEs paints a compelling picture of a transformative shift towards green growth. As these economies continue to embrace renewable energy solutions, they are not only addressing climate change but also unlocking opportunities for economic development, social progress, and a more sustainable future for all. Continued investment, policy support, and collaborative action are crucial for realizing the full potential of renewable energy in driving a green growth revolution across the emerging world.

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