

Title:

Inspecting energy consumption, capital formation and economic growth nexus in Pakistan

Journal:

Sustainable Energy Technologies and Assessments: Volume 50, March 2022

Document Type:

Research Articles

Authors :

Asghar Khan, M.,

Rehan, R.,

(raja.rehan@s.unikl.edu.my)

Umer Chhapra, I.,

Bai, A.

Full text link :

UniKL IR :

Publisher: <https://www.sciencedirect.com/science/article/abs/pii/S2213138821008596>

Citation:

Khan, Muhammad, Rehan, Raja, Umer Chhapra, Imran and Bai, Anjali. (2022). Inspecting energy consumption, capital formation and economic growth nexus in Pakistan. Sustainable Energy Technologies and Assessments. 50. 101845. 10.1016/j.seta.2021.101845.

Abstract:

The energy crisis is the main drain for Pakistan's economy. Therefore, this article inspects the causal relation between gross domestic products (LRGDP) and consumption of energy (LENR) for Pakistan. Remarkably, this study contributes to the existent literature by examining a trivariate system including capital formation (LCFC) from 1990 to 2018. The Johansen cointegration test and Vector Auto Regression with Error Correction (VAR/VEC) methods are executed to discover long and short run relations among selected variables. Also, impulsive response (IR) and variance decomposition tactics are used to check the validity of the outcomes. The results clarify that variables are cohesive at order of one and cointegrated relationship is present among the studied variables. Besides, error term modeling postulates that the variables (LRGDP and LENR) move to long-run equilibrium when they deviate from their cointegrated relationship. Hence, this suggests the existence of two-way causal connection which runs from LENR to LRGDP and then LRGDP to LENR in short-run. Evidently, this infers that the energy sector of Pakistan and LRGDP output depend on each other. Interestingly, the similar results are obtained from IR and variance decomposition analysis. Policy makers should liberalize the energy sector and introduce reforms that move economy toward gas, coal and other renewable sources.