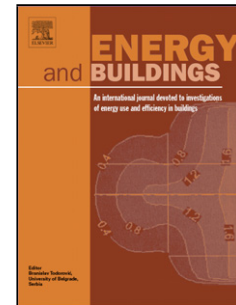


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Authors: Love O. Idahosa, Nyankomo N. Marwa, Joseph O. Akotey



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Energy (Electricity) Consumption in South African Hotels: A Panel Data Analysis

Idahosa, Love O**

loveidahosa@gmail.com

Cell: +27(0)749321000.

(Corresponding Author)

Marwa, Nyankomo N. (PhD)**

nyankomo.marwa@usb.ac.za Cell: +27(0)720704045

Akotey, Joseph O. (PhD)**

joseph.akotey@usb.ac.za

Cell: +27(0)749453141.

**University of Stellenbosch Business School, P O Box 610, Bellville 7535, South Africa.

Highlights

- A hotel's facilities and services offered are its key energy consumption drivers.
- Price regulation plays a key role in curtailing electricity consumption in hotels.
- Climatic conditions are stronger drivers of energy consumption than occupancy.

Abstract

Addressing the large energy consumption of hotels requires an understanding of the factors that drive this consumption. This enquiry is crucial for South Africa which has experienced significant strain in meeting its domestic energy demand. This has occurred alongside increases in international tourists, adding to the pressure on already strained resources. This paper tests hypotheses on drivers of energy consumption in hotels using a novel panel dataset which presents daily consumption data for 22 hotels across South Africa. Findings from various specifications of the Dynamic Random Effects Model suggest that the number of rooms in a hotel, the services and facilities offered, and climatic conditions are strong drivers of consumption. While the role of occupancy could not be robustly ascertained due to severe data limitations, findings indicate that price regulation plays a significant role in curtailing

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