Liquid Petroleum Gas Supply Chain Challenges in Rural Medical Facilities in Zimbabwe

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Abstract

Rural medical facilities in Zimbabwe have consistently faced energy-related challenges particularly in powering machines that are critical in their operations. The situation has been further worsened by the inconsistent supply of electricity from the national grid. This study aimed to investigate the supply chain challenges associated with the use of liquid petroleum gas (LPG) in rural medical facilities in Zimbabwe. The research followed a quantitative approach in which 97 respondents were surveyed. The respondents consisted of medical and maintenance staff drawn from selected provincial medical facilities in Zimbabwe, private LPG suppliers as well as non-governmental organisations involved in the procurement and supply of LPG. The collected data were analysed with the aid of the Statistical Package for Social Scientists (SPSS version 24.0).

The results of the study show that the performance of rural medical facilities improved with the use of LPG. The study further shows that various significant LPG supply-related challenges exist in rural medical facilities, which limit the performance of such institutions. Managerial implications are provided on how managers and employees in rural medical facilities can harness the supply and use of LPG as a viable alternative energy source in remote locations.

Keywords

Liquid-Petroleum Gas Rural medical facilities Quantitative modelling
Performance analysis Sustainable logistics Supply chain management

List of Abbreviations

ESMAP

Energy Sector Management Assistance Program

LPG

Liquid Petroleum Gas

MEER

Ministry of Electricity and Renewable Energy

NGO

Non-Governmental Organisation

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