Energy Policy 48 (2012) 702–710

Contents lists available at SciVerse ScienceDirect

Energy Policy

journal homepage: www.elsevier.com/locate/enpol

Consumers satisfaction in the energy sector in Kenya

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HIGHLIGHTS

► The paper estimates consumer satisfaction in biomass, petroleum, electricity and renewable energy subsectors.
► Consumer satisfaction is highest in the renewable energy sub sector at 74.7%.
► The electricity sub sector has the lowest consumer satisfaction of 53.06%.
► Image of renewable energy providers is also the highest at 72.5%.
► Factors explaining consumer satisfaction are; Image, consumers' loyalty, expectations, perceived value, and perceived quality.

ARTICLE INFO

Article history:
Received 31 January 2011
Accepted 2 June 2012
Available online 28 June 2012

Keywords:
Energy sector
Energy sources
Consumer satisfaction

ABSTRACT

This paper analyzes consumer satisfaction in the energy sector in Kenya to assess the quality and level of service delivery. By use of the European Consumer Satisfaction Index (ECSI), the paper estimates consumer satisfaction in biomass, petroleum, electricity and renewable energy subsectors. The findings are that consumer satisfaction is highest in the renewable energy sub sector at 74.7% followed by petroleum at 62.8%. The electricity sub sector has the lowest consumer satisfaction of 53.06%. Further, it is found that the image of renewable energy providers is also the highest at 72.5% followed by that of petroleum companies at 63.1%. In the electricity sub sector, perceived value scored the highest at 64.2%. The paper concludes that image of a service provider, loyalty of consumers, consumer expectations, perceived value, perceived quality and the way complains are handled are very important factors that determine consumer satisfaction levels. It is recommended that for monitoring and evaluation purposes in the performance of the energy sector, the Energy RegulatoryCommission(ERC) could use the consumer satisfaction index level to evaluate whether the regulatory policies and their implementation are bearing fruit where a high index would be associated with good performance and vice versa.

1. Introduction and motivation of study

The energy sector in Kenya has witnessed mixed performance in terms of service delivery. The sector comprises of three main sub sectors namely: electricity, petroleum and renewable energy. Over the last three decades, demand for energy has increased tremendously in all subsectors and this has constrained supply and delivery of quality services to citizens. For instance, demand for petroleum products has witnessed a general increase over time and between 2008 and 2009, the demand increased from 3185 thousand tonnes to 3656 thousand tonnes. However, the rate of growth for the different petroleum products has been different. In the Electricity subsector, domestic demand increased by 10.8%, the commercial and industrial demand increased by 7.6%, while rural electrification increased by 3.5%. The use of (liquefied petroleum gas) LPG rose from over 40 thousand metric tonnes in 2003 to 80 thousand metric tonnes in 2008, while biomass is the widest used source of energy representing 70% of energy consumption. Electricity is mainly used by residential, commercial and industrial sectors in lighting, cooking, cooling and other industrial purposes. Petroleum products on the other hand are mainly used in transportation, industrial, power generation and residential applications. Kerosene accounts for 80% of total energy consumption in residential sector. Lastly, renewable energy is largely used by residential sectors for cooking, lighting and heating (The Kenya Institute for Public Policy Research and Analysis (KIPPRA), 2010).

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http://dx.doi.org/10.1016/j.enpol.2012.06.004

The quality of some of the services[1] within the energy sector has fallen short of the expectations of consumers, for instance, the petroleum subsector has experienced challenges in environment and safety standards and lack of competition; the electricity sub sector has had the challenges of high frequency of intermittent outages, low electricity access rate for the country's population and high power system losses; while the renewable energy subsector has had challenges such as high upfront costs which diminish accessibility to the poor, and limited technical capacity for installation and after sales maintenance as in the case of Solar technology at the local level. It is therefore important to evaluate the current level of consumer satisfaction in the energy sector in order to enhance regulation on products and service delivery. In addition, service providers in the energy sector need to be evaluated on how well they satisfy their consumers.

The post reform institutional infrastructure in the energy sector of the late 1990s has posed substantial challenges to the economy in general and energy sector in particular. First, liberalization of the petroleum industry did not have in the process an ingrained regulatory framework to regulate the industry in line with international best practices for deregulated petroleum markets. Consequently, issues have arisen in regard to health, environment and safety standards in construction and operation of petroleum distribution infrastructure such as retail dispensing sites and storage depots.

In addition, the Electricity Power Act (EPA), 1997 was not conducive to investments and competitive innovations in the electricity sub sector because it recognized Kenya Power and Lighting Company (KPLC) as the only authorized public electricity distributor. Further, the legal frameworks in the energy sector had only scant attention to the development of new and renewable energy supply options such as solar, wind, mini hydropower and biomass.

To rectify these challenges, the Government enacted a new energy law, the Energy Act No. 12 in December 2006 that became operational with effect from 7th July 2007. This legislation consolidates the EPA, 1997 and the Petroleum Act, Cap 116. A critical innovation of these laws is the conversion of the Electricity Regulatory Board (ERB) into Energy Regulatory Commission (ERC) with statutory mandate to offer regulatory stewardship to electricity, petroleum and new and renewable energy sub sectors. The objective of regulation is to bring about desirable social outcomes[2] , which are otherwise unattainable due to market failures[3] . Such outcomes that include environmental conservation and high safety standards have characteristics of public goods such as non excludability and non rivalries in consumption and are, therefore, more efficiently supplied through public intervention rather than by unfettered market mechanism. Regulation therefore, comprises state activities aimed at encouraging economic agents to act in ways that are compatible with social welfare.

Though challenges experienced by various energy sub sectors are well documented (see The Kenya Institute for Public Policy Research and Analysis (KIPPRA), 2010), information and data about consumer perceptions on quality of services, prices charged, energy supply complementarities and/or substitutes and consumer characteristics are not readily available. This makes it difficult to measure consumer satisfaction, hence, affecting the efforts by energy sector regulators, companies and organizations to improve product and service quality, as well as maintain consumer loyalty.

Consumer satisfaction has therefore become a vital concern for companies and organizations in their efforts to improve product and service quality, and maintain consumer loyalty within a highly competitive market place[4] . It is the consumer's assessment of a product or service in terms of the extent to which that product or service has met his/her needs or expectations. Service delivery in the energy sector in Kenya can be improved if service providers examine deeply, the factors that contribute to low or high consumer satisfaction and determine key areas to enhance performance. It is for this reason that this study examines consumer satisfaction in the energy sector.

The overall objective of this study is to analyze consumer satisfaction in the energy sector with a view to providing policy recommendations and strategies that will ensure quality service provision.

2. Analytical framework and methodology of study

2.1. Theoretical model

Consumer Satisfaction Index is an economic indicator that measures consumer satisfaction. Satisfaction is the consumer's assessment of a product or service in terms of the extent to which that product or service has met his/her needs or expectations. Consumer satisfaction has become a vital concern for companies and organization within a highly competitive market place.

A number of theories have been used to explain the satisfaction attributes of consumers. According to Hom (2000), there are two models that can explain consumer satisfaction. These include macro and micro models (see Table 1). Macro models give the researcher the strategic context of the design and of the results for a study of customer satisfaction. At the same time they have

[1] During the 2009 National Energy Survey carried out on the energy services and products for industrial, residential and commercial consumers. It was noted that, 22.7% of the respondents reported that energy services and products were dangerous, unsafe and of poor quality; 45% reported that they were expensive, 0.9% indicated they were of inadequate supply and 31.4% noted that information on energy services and products were unavailable.

[2] Desirable social outcomes as captured in the Energy Act No.12 of 2006 articles 5 (b,d); 6 (c,i,p); 30 (1).

[3] (5b) protect the interests of consumer, investor and other stakeholder interests; (5d) monitor, ensure implementation of, and the observance of the principles of fair competition in the energy sector, in coordination with other statutory authorities; (6c) formulate, enforce and review environmental, health, safety and quality standards for the energy sector, in coordination with other statutory authorities; (6i) set, review and adjust electric power tariffs and tariff structures, and investigate tariff charges, whether or not a specific application has been made for a tariff adjustment; (6p) grant licenses, in coordination with other statutory authorities, for sustainable charcoal production upon submission of satisfactory development plans.

[4] Consumer satisfaction studies and index are seen as best practice examples in companies and organizations. In Kenya, Consumer Satisfaction surveys are now undertaken by various companies and organizations. Consumer satisfaction studies have been used together with market research to guide marketing strategies for companies and organizations; they have also been used for branding, preparation of service charters, quality policies and product development.This approach is used locally in almost all the economic sectors such as health, energy, service sectors. For example;In Kenya, all the government ministries are required to carry out customer satisfaction survey on an annual basis. These surveys are usually conducted by private consultancies. Most of these surveys are necessitated by the fact that customer satisfaction survey enables an institution to evaluate its performance by gauging the feelings of those who benefit from its services or products. By so doing, the institution may change direction if found to be drifting away from its original objectives or improve on the status quo if found to be on course. The two references cited are for Ministry of Local Government and Ministry of Finance, previous customer survey documents.http://www.ldphs.org.za/resources/local-government-database/by-country/kenya/national-policy/Customer%20survey%20satistaction%20report.pdfhttp://www.treasury.go.ke/index.php?option=com_docman&task=cat_view&gid=91&Itemid=54In service sector, the banking industry also benefits a lot in such survey an example of this is Chase Bank in Kenya. https://www.research.net/s/X5P23SVManufacturing sector also undertake such survey mainly after introduction of new products and also for already existing products.