

Assessing Customer Satisfaction with Privatized Electricity Service Quality in Nigeria

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ABSTRACT

The privatisation of electricity service delivery in Nigeria was more than ten years ago. The privatisation policy was in an attempt to ensure a stable electricity supply to the end users. The outcome of the power privation is being appraised by the paper via evaluation of the customer's satisfaction as one of the measuring factors of its performance. It is objectively an appraisal of the perception of the electricity service delivery and users as outcome of the privatisation of power supply. Relevant literature was sourced as secondary data and a conceptual framework that depicts indices of customer satisfaction was explored to substantiate the satisfactory level of the customer, the end user of electricity service delivery. An inventory of the outcome of electricity privatisation was also embarked on, sourcing information about the customers' satisfaction with the service quality of electricity service delivery privatisation from available relevant publications and social media.

The paper in its empirical study looked at 397 sample size customers' satisfactory response to electricity service delivery in Ekiti State as a case study. Considered their perception from the inception of the electricity privatisation policy in the past 10 years, from November 2013 to date in 2024.

The paper, therefore, concluded in its submission, having garnered from the available information of the negative response of the customers perceptions. This is a reflection of the poor performance of power privatisation before and after the power privatization policy. The paper, given the foregoing, recommends the consideration of the dynamics in demography, spatial distribution and demand of power supply in the privatization process in Nigeria.

Keywords: Customers' Satisfaction, Privatisation, Electricity Service, Delivery Quality, Nigeria

I. INTRODUCTION

Privatisation is defined as the contract with the private sector engaging them in the production and provision of the goods and services that were previously fully provided by the government. Generally it could be referred to as the reassigning of the public responsibility of providing certain public services to a private body or organisation, that is, the relinquishing of State control of ownership of public enterprises ("In-the-Public-Interest" 2015; Investopedia 2015 and Sepehr, 2013;). Privatisation could be in different dimension.

The systems of privatisation approaches, normally involve: asset sale or trading-off of state-owned enterprises to a private body, public-private partnerships, franchise, contracting or saddling a private businessman with the responsibility of providing a certain service; giving vouchers to the users of service publicly provided to pay for cost recovery; or provision of grants and subsidized ticket for the affordability of the low-income earners to cope with the privately provided good and services (Sepehr; 2013 and Oyebanji, 2010.).

Privatisation is not a new concept or approach. Both the advanced and developing countries have made use of the privatisation approach in some areas of their public service delivery, (Hussain, 2014; Sepehr 2013; Salimi et al, 2012; Gilroy; 2010 and Kosar 2006).

Public utilities privatisation like electricity service delivery has been seen as a composite issue that has to be critically handled alongside its supporting physical facilities' distribution network and functional condition. The imperatives of electrical facilities (Haywood 1988), that is, electric

facilities in enhancing quality electricity service delivery in the social and economic progress of people's lives cannot be underestimated. Hence, Ale et al; (2011) opined that consideration for such infrastructure as electric facilities serves as the forerunner of economic development and is capable of guaranteeing effective delivery to revamp the economy and transform the nation's economy (Oisasoje and Ojeifo, 2012; Oguzor, 2011 and UN (2011).

1.1 Background of the Study

This was seen as a panacea for the inefficiencies in the running of government enterprises and the poor levels of public service delivery. The case of electricity service delivery was not an exception among the government enterprises that are run inefficiently in Nigeria. The incessant power outage all over the nation informs the reason for the research and choice of Ekiti State was born out of the homogeneity of the poor electricity supply in Nigeria (Ahiuma-Young et al., 2017; Oxford Business Group 2016, Okekale, 2015; Olusuyi, et., al., 2014; Onwe, 2014 & Okafor, 2014). The issue is that the case of electric facilities such as; (transformers, electric poles, wires and cables) which would facilitate quality electricity service delivery within the residential neighbourhood, are not mostly put into consideration (Erskine 2014; Oisasoje & Ojeifo, 2012; Ale et al., 2011; Oguzor, 2011; Calderon, 2009; Egbetokun, 2009; Adeyemo & Adeleke, 2008).

1.1 Problem Statement

The poor satisfactory condition of the electricity service delivery is not peculiar to the study area alone but has been a common experience all over the nation whole (Olusuyi et al., 2014; Akhalumeh & Ohiokha, 2013; Franklin & Gabriel, 2014; IseOlorunkanmi, 2014). The incessant power outages are among others majorly poor spatial distribution of electricity service delivery and household users are the most vulnerable to this problem. However, the changing of the administrative system of the electricity service provider from ECN, to NEPA, to PHCN and the final unbundling to the eventual privatisation since November 2013 has not been able to evolve a considerable improvement in the electricity service delivery. The inability to achieve the goal of constant electricity service delivery through the aforementioned strategies to the negligence of due diligence in some stringent areas that are pertinent to achieving constant power supply. Inadequate

information about the power infrastructure facilities as averred by Echewofun (2015); IseOlorunkanmi (2014) Josephat, et al (2014); Erskine (2014); Wächter (2013); Hull et al. (2012), formed part of the fundamental reason for poor electricity service delivery and eventual unsatisfactory condition of service quality despite its privatisation.

1.2 Aim and Objectives

The research aim is to evaluate customers' satisfaction as a factor of performance of electricity service delivery privatisation in Nigeria. This will be achieved via assessment of the performance of electric facilities' functional condition and service quality with the advent of privatisation. The research will also, evaluate the level of performance of existing electric service delivery via reliability, stability of the duration of supply, and interruptions. Plausible solutions for satisfactory electric service delivery privatisation performance would be recommended by the study.

1.3 Scope of the study

The scope of this study in content is the evaluation of household satisfaction with the quality of electricity service delivery (Bonnitcha, & McCorquodale, 2013), which focuses on the evaluation of the level of performance of electric service delivery reliability, stability of the duration of supply, and interruptions of electricity supply to the end users. The study attempted a comparison of service reliability before and after privatisation, it also looked at the facility breakdown before and after privatisation and finally assessed the overall perspective of the quality of neighbourhood electricity service delivery.

II. LITERATURE REVIEW

The focus of the research is on the performance evaluation of electricity service privatisation of the distribution section of the power sector, with an in-depth consideration of electrical facilities' distribution network and functional condition. This aspect of electric facilities is fundamental to quality electricity service delivery and privatisation performance. However, non-consideration of the fundamental issue of electric facilities' functional and distribution conditions before privatisation formed the basis for investigating the privatisation planning process of the privatisation approach in Nigeria.

Embracing privatisation in Nigeria was encouraged by; the ailing state-owned enterprises, the poor socio-economic condition of the nation after the independence, the pressure from their

international creditors, and an attempt to meet the nation's financial and economic challenges (Sayyad 1990 in Essays, 2013). The literature affirmed that, in some countries like; Vietnam, New Zealand, the U.K., Chile, Mexico, China, Malaysia and South Africa where it is well practised with efficiency in the privatisation planning process, political will, transparency and enabling environment, advantages of privatisation have been averred as a very important approach to a better medium of service delivery of basic public facilities (Peterside and Brown 2014; Government of Guyana, 1994 in Sepehr; 2013; Auger, 1999 cited in England 2011; Oyebanji, 2010; McKenzie & Mookherjee, 2002).

Nonetheless, the disadvantages of privatisation have been viewed from the negative perspectives of its outcomes in the service delivery of electricity in Nigeria. Arguing that the privatisation of electricity in Nigeria is a capitalistic economic approach in its system, position and postulation (Onwe 2014). The situations and experiences of the public from the reports gathered were contrary to the progressive principle and intention of privatisation, most especially in the service delivery of electricity (Peterside & Brown 2014). This is more so as the available electric facilities (transformer, electric poles and wire and cable) were not in good functional condition.

Among the reasons for failure as reported in the literature was in the case where the people in the community make an effort to buy a transformer to replace the faulty one for their neighbourhood use. They may not get the attention of the DISCOS for the installation and to energise the transformer for use in time. In some instances, privatisation of service delivery of electricity is a failure from both the government (public sector) and the DISCOS (Onwe 2014). Worsening still, the reluctance of the distribution companies to quickly replace faulty components of electric facilities within their networks seems to have made their perception of electricity service delivery more of poor quality to customers (Etieyibo, 2011). To support the poor privatisation planning process, it was after privatisation, that the DISCOS was asked to take charge of their networks and come up with any system shortcomings and the cost of such for quality electricity service delivery provision to their customers (Okafor, 2015). The research stresses that this ought to have been considered ahead or in the course of the privatisation planning process.

This research investigated the claim that the privatisation planning process of electricity

service in Nigeria was being hurriedly carried out with misplacement of priority (Etieyibo, 2011). Etieyibo (2011) posited the consideration for sufficient spatial data and adequate information about the existing and current situation of electric facilities. It should have been given the due diligence procedure they deserved in the privatisation planning process as fundamental to quality service delivery and better performance in privatisation after all to ensure an ideal situation.

The process of unbundling the Power Holding Company of Nigeria (PHCN) concluded in the year 2013 which marked a turning point in the history of electricity service delivery in Nigeria. However, the initial grossly underfunding condition of the power sector for over 20 years period had left the nation in continuous experience of the huge gap in infrastructure provision and subsequent poor facility distribution network. Hence, handing over the companies (PHCN) to private investors is not intended to automatically transform into stable power supply. In support of the above and citing Sambo (2013), who was Nigeria's vice President and the Chairman of the National Council on Privatisation (NCP), submitted that privatisation was not an end in itself, but needed to improve efficiency strategy and service delivery, hence, continuous government commitment is needed to ensure the realisation of the privatisation objectives. This was consistent with Etieyibo (2011) in his research and also in the submission of Oyebanji (2010), that, privatisation is not just a direct solution for the public sector enterprises' problems of poor performance.

Despite numerous studies and several submissions from the literature such as; (Oyelami & Adewumi, 2014; Olusuyi et al., 2014; Franklin & Gabriel, 2014; Ise Olorunkanmi, 2014 & Akhalumeh & Ohiokha, 2013; Oyetunji, 2013; Jolaoso et al., 2013; Udoka & Anyingang, 2012 & Ajao et al., 2009), assessing the privatisation of electricity service delivery. However, the gap remains that, the challenges of deteriorated available electric facilities on the ground and the potentiality of the private sector to successfully cope with an effective supply of electricity was hardly examined by these past studies

Service Quality

Important to this research is the evaluation of the reliability of electricity service as a measure towards monitoring service quality and customer-focused electricity service delivery that meets community needs. Essentially, electricity service delivery quality is conceived as the extent to which

the service delivered meets service users' or customers' expectations (Ghobadian et al., 1993:43 in Sibanda, 2012). However, it should be noteworthy that in electricity services, the delivery process also matters to the customers. It means that the perception of service quality in this concept is influenced also by the service process and not only the service outcome. The service process in this research is the mode of operation of the service provider cum customer relationship.

The outcome of this research is that electricity service quality should focus on determining customer perceptions of the service quality. As suggested by this research the service quality is premised on the strategies to address the necessity of adequate spatial data about the functional condition and distribution network of electric facilities. The service quality in this research implies two issues, that is, service measuring up to the specification as an essential value of product quality which is 'fitness for purpose' on one hand and secondly meeting the needs and requirements of the particular customer.

Customer Satisfaction

"In a nutshell, customer satisfaction could be the pleasure obtained from consuming an offer", (Agbor, 2011). Consistent with the above definition is that the extent of someone's happiness or frustration with the perceived performance of a product from his or her expectations is a determinant of customer satisfaction, (Kotler & Keller (2009). Further to the above is that customer dissatisfaction sets in when performance falls below

expectations, while satisfied customers are the product of performance that satisfies customers' expectations, as Product and service improvements depend upon consumer feedback, (Shapiro, 2017). This research is based on the Ghobadian model of customer satisfaction which is consistent with the stated definitions. Richard Shapiro 2017 Customer Experience Trends

According to Ghobadian, the evaluation of service quality levels is essentially important in monitoring service quality and customer-focused service delivery such as electricity that meets community needs. Service delivery quality can critically be thought of as a measure of the extent to which the service delivered meets service users' or customers' expectations (Ghobadian et al., 1994). However, the perception of this conceptualised service quality is influenced not only by the service outcome but also by the service process just as in the case of electricity service delivery.

Hence, this perceived quality is found along a range, just as unacceptable quality falls at one end of the range, while ideal quality represents different levels of quality which is the satisfactory point of service quality (Ghobadian et al., 1994 in Motubatse, 2014). Customer satisfaction in electricity service delivery in this research, can, therefore, be modelled after Ghobadian et al., (1994) in their model of customer perception of product quality and hence satisfaction or otherwise in service delivery. The research's theoretical underpinning of customer satisfaction is based on the Ghobadian customer satisfaction model as submitted in Table 1.1 below.

Satisfaction Model

Prior customer expectations (PCE)	Actual process quality (APQ)	Actual outcome quality (AOQ)	Perceived quality (PQ)
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Using the model, the probability of the research's final analysis would fall within the following depicted modelling's three possible outcomes/scenarios which emanated from the household heads' perception of quality electricity service delivery. The three possible modelling outcomes/scenarios emanating from the quality service delivery monitoring model can thus be depicted as follows

- Satisfaction quality, where customer's expectations (CE) are exactly met:
That is to say, $PCE = PQ$
- Ideal quality, where perceived quality (PQ) is higher than customers' expectations:
That is to say $PQ > PCE$
- Unacceptable quality, where PQ is lower than CE:

That is to say, $PQ < PCE$.

This research in conclusion about the customer satisfaction concept resulted in unacceptable quality, where PQ is lower than CE: That is to say, $PQ < PCE$. Thus, for an ideal quality, where perceived quality (PQ) is higher than customers' expectations is consistent with Park et, al, "It is important to be aware of the potential significance of background variables (of functional condition and distribution network of electric facilities) in determining (Service quality and) satisfaction", (Park, K, et. al. 2016) This is the actual aim of this research. The next session discusses the concept of due diligence as another relevant theoretical underpinning of the research.

2.1 Conceptual Customer Satisfaction

Customer satisfaction could be briefly stated as the pleasure derived from a service delivered (Agbor, 2011). Consistent with the above view is that the extent of someone's happiness or frustration with the perceived performance of a product from his or her expectations is a determinant of customer satisfaction (Kotler & Keller (2009). Further to the above is that customer dissatisfaction sets in when performance falls below expectations, while satisfied customers are the product of performance that satisfies customers' expectations, as the improvement and performance evaluation of any product and service is a reflection of the report from the consumer (Shapiro, 2017). The perception of the household heads about electricity service delivery is explained in line with Shapiro's (2017) Customer Experience Trends.

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III. RESEARCH METHODOLOGY AND DESIGN

This research method adopted a quantitative approach and the information was gathered from the household heads in Ekiti State as the major users of electricity are the target audience. The adoption of a nonprobability

convenience sampling approach of selecting one distribution company (IDISCO) out of 11 DISCOS and one state; Ekiti state, out of the 36 states and 4 local authorities out of the 774 local authorities was in consonance with; Ilker et al.,(2016) and Account learning, (2016), as most practicable among other sampling approaches.

In line with Okoye & Onwuka, (2014) Usman (2013) & Akinleye, (2007), a multi-stage sampling which covers stratified sampling, proportional sampling, cluster sampling, purposive sampling and finally systematic random sampling was adopted.

The total population of Ekiti State was estimated at 2.8 million (NPC. Web 2015). The total number of household heads using an average household size of 5.0 obtained from NPC (2006), in Reed and Meru, (2014), the household sample frame for the study was 560,240. Using the Yamane formula, the sample size was arrived approximately at 400, however, to make room for loss and non-retrievable instruments, 450 questionnaires were distributed among the household heads using a multi-stage sampling procedure in the collection of data for the study. The researcher was able to retrieve, 397 filled questionnaires that gave details of household consumption of electricity in the neighbourhood. These were considered to elicit information on the reliability, period of interruption and the rate of overall experience of quality electricity service delivery by the household heads in the study area.

IV. DISCUSSION OF RESULTS

4.1 Duration of electricity supply on Daily Basis

Apparently from Table 4.1 below, 245 heads of household (61.7%) indicated less than 5 hours of electricity service reception, while 103 (25.9%) respondents indicated above 5 hours to 10 hours of electricity service reception, So altogether 87.6% of the household heads only had the experience of just 10 hours of electricity service reception per day. This empirical evidence of poor electricity service delivery is consistent with reports on the experience of the customers by Ahiuma-Young et al., (2017) & Okeke (2014). The prolonged power outage often led to the people's protest across towns and villages in Ekiti State as reported by Emejor and Popoola, (2015).

Table 4.1: Stability of Supply (hrs./day)

Stability of Supply (hours/day)	No	%
Less than 5hrs	245	61.7%
5-10hrs	103	25.9%
11-15hrs	13	3.3%

15-20hrs	1	.3%
21hrs & above	2	.5%
Missing	33	8.1
Total	397	100%

4.2 Comparison of electricity service reliability before and after privatization

Evidently from Table 4.2, the rating response of the household heads to the issue of “very unreliable and unreliable” electricity supply before privatisation was added up to 212 household heads (53.4%). While compared with the rating response of 201 (50.6%) of the household heads,

the issue of “very unreliable and unreliable” electricity supply after privatisation, the reliability was grossly insignificant. The implication of this is that before privatisation the reliability of electricity service delivery was poor. This evaluation was consistent with the submission of Awosope (2014) & Oyedepo (2012).

Table 4.2 Comparison of Electricity Service Reliability before and after Privatisation

Electricity Service Reliability	Before		After		% Increase/Decrease
	No	%	No	%	
Very Unreliable	90	22.7	89	22.4	No significant change
Unreliable	122	30.7	112	28.2	
Neutral	106	26.7	118	29.7	Not applicable
Reliable	47	11.8	45	11.3	No significant change
Very Reliable	27	6.8	22	5.6	
Missing	5	1.3	11	2.8	
Total	397	100%	397	100%	

4.3 Comparison of facility breakdown before and after privatisation

The frequency of facility breakdown is another impeding factor of service quality. In Table 4.3, 188 household heads (47.4%) considered the rate of facility breakdown as “very frequent” and “frequent” before privatisation. The frequency of the facility breakdown before privatisation was the reason behind the poor performance of electricity service delivery as averred by Usman, (2013); Oluseyi, et al., (2012); Oyedepo, (2012) &

Ajao et al., (2009). Similarly, 192 of the household heads (48.4%) indicated an increased rate of electric facility breakdown and considered it “frequent” after privatisation. This is consistent with Awosope, (2014); Oyelami, & Adewumi (2014); Bräuninger (2013) & Batini (2012). It was also observed from the literature that most of the electric facilities were in poor condition and long years of disinvestment in the facilities worsened the situation (Sanusi, 2012).

Table 4.3. Compared facility breakdown before and after privatisation

Electricity Service Facility breakdown	Before		After		% Increase/Decrease
	No	%	No	%	
Very Frequent	61	15.4	84	21.2	No significant change
Frequent	127	32.0	108	27.2	
Neutral	116	29.2	123	31.0	Not applicable
Less Frequent	64	16.1	52	13.1	No significant change
Not Frequent	20	5.0	20	5.0	
Missing	9	2.3	10	2.5	
Total	397	100	397	100	

4.4 Overall view of the Neighbourhood Electricity Service Delivery Quality

Table 5.20 features the descriptive analysis of the overall view of the household

experience of electricity service delivery. Thus, 267 of the household heads (67.3%) were in the categories of both “very poor” and “poor” conditions of electricity service delivery in the

neighbourhood. Apart from the 88 (22.2%) of the household heads that were in the neutral category, only 27 (6%) of the household heads were in the categories of “good” and “excellent”. The household heads' view of the reliability of electricity service within the neighbourhood and

the household heads' overall evaluation of the electricity service quality was not satisfactory. The implication of the above established the poor performance of electricity service delivery after privatisation.

Table 4.4 Overall View of Service Delivery Quality

Overall view			
	No	%	
Very Poor	133	33.5	67.3 %
Poor	134	33.8	
Neutral	88	22.2	
Good	24	6.0	
Excellent	3	1.0	
Missing	14	3.5	
Total	397	100%)	

V. SUMMARY

The study has been able to empirically establish the poor service quality of electricity service delivery to household users.

5.1 Conclusion

The factors of service quality of the observed variables of electricity service quality (reliability, stability of the duration of supply, and interruption of electricity supply to the end users), were measured empirically against the response of the household satisfaction of the service delivery performance. The point here is to establish the influence of these service quality variables and the functionality of electric physical facilities on satisfactory service delivery. In the descriptive analysis, the findings from the 397 household heads 53.4% and 50.6% revealed electricity service delivery as unreliable before and after privatisation respectively. The findings further revealed 67.3 % and 64.3% of household heads indicated very poor and poor service quality and unsatisfactory and highly unsatisfactory condition of electricity service delivery in their neighbourhood respectively; this signified poor performance level of the service delivery not influenced by the advent of privatisation, this is consistent with the report from (Vanguard, 2017 and Etieyibo, 2011).

5.2 Recommendation

The research recommends service reliability enhancement to improve customer satisfaction. Investments in infrastructure upgrades, via replacement of aging facilities, expansion of grid capacity with adoption of advanced technologies like smart grids for monitoring and

managing service delivery more effectively becomes imperative. This will improved response times as against downtime.

Also, electricity service providers need to implement customer-centric policies. The discos should embark on; transparent pricing structures flexible billing options, and customized service packages. In addition there must be a clear and accessible channels established by the Discos for customer feedback and complaints, to ensure service improvements from there inputs.

Furthermore, Nigeria Electricity Regulatory Commission must be strengthened to ensure that privatized electricity providers comply and adhere to high standards of service quality. Regular inspections and assessments of the electricity providers should be conducted to ensure that their service delivery commitments is met, and non-compliance among the providers must be penalised to ensure accountability.

Additionally, programs on enlightenment and education of the customer should be launched. The customers should be enlightened on their rights, the services available to them, and how to utilize these services effectively. They could also be educated on energy conservation and efficient usage that can help in reducing bills, thereby enhancing customer satisfaction

In another dimension, adoption of other sources of sustainable and renewable energy solutions like solar, wind, and biofuel to improve the sustainability of electricity services should be encouraged. The electricity supply will not only be more reliable but also environmentally friendly and customers who made use of renewable energy

solutions deserves incentives to enhance satisfaction.

Similarly, customer service and support should be improved upon through investment in customer service training for staff to empathetically handle inquiries and complaints efficiently. There should be 24/7 support hotlines provided for customers to access immediate assistance and information, improving overall service perception and satisfaction.

Finally, there must be transparent and fair dispute resolution strategy where customers have easy access to dispute resolution panels and should be assured of fair hearings and timely resolutions of their grievances. This will greatly enhance customer trust and satisfaction.

In conclusion, electricity service providers in Nigeria can significantly enhance customer satisfaction, leading to a more favourable perception of privatized electricity services and better overall service outcomes with adherence to these recommendations.

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