

## Evaluation of Customer Education and Satisfaction of Prepaid Meter Usage in Nigeria Electricity Distribution Company

Kayode Alao<sup>1</sup>, Kasali Jimoh<sup>1\*</sup>, Adebayo Joseph Obadiora<sup>2</sup>

<sup>1</sup>Department of Educational Foundations and Counselling, Obafemi Awolowo University, Ile-Ife, Nigeria

<sup>2</sup>Department Department of Arts and Social Science Education, Obafemi Awolowo University, Ile-Ife, Nigeria

\*Correspondence: [jimoh.bukola@yahoo.com](mailto:jimoh.bukola@yahoo.com)

Received: 23 February 2022; Accepted: 23 April 2022; Published: 25 April 2022

**Abstract:** The study identified challenges confronts customers using pre-paid meters within Ile-Ife Metropolis, relevance of prepaid meter usage over the post-paid meter usage within Ile-Ife Metropolis and the level of customer satisfaction with respect to pre-paid meter usage. The study used descriptive research designs. The population for the study consisted 17,551. The sample for the study consisted 204 prepaid user customers selected using stratified sampling techniques. The sample was calculated using Fishers (1995) which has ideal formula for targeted population. The instrument used for the study was questionnaire namely "Customer Education and Satisfaction of Prepaid Meter Usage in Ibadan Electricity Distribution Company". Cronbach Alpha ( $\alpha$ ) was used to test validity of the research instrument. The output gave Reliability Statistics which showed Cronbach's alpha of 0.701. Data collected were analyzed using inferential statistics. The results showed that majority at 32.4% (66) of the sampled users of prepaid meters agreed that there has been no disconnection, and there is no need to pay a re-connection fee when using prepaid meter while 18.6% strongly disagreed with the claimed; the system is disadvantageous to the poor and showed that 5.9% (12) of the sampled customers highly dissatisfied with the respect to prepaid meter usage in Ile-Ife, 17.6 % (36) dissatisfied with the prepaid meter usage while 38.7% (79) of the customers satisfied with the usage of prepaid meter and 37.7 % (77) of the customers highly satisfied with the usage of prepaid meter in Ile-Ife. The study concluded that IBEDC should sensitizing the customers before introducing prepaid meters to them for this would enhance the level of customer satisfaction.

**Keywords:** Customers, Customer Education, Customer Satisfaction, Post-Paid, Prepaid meter

### INTRODUCTION

A country's economic well-being depends heavily on the availability of electricity. Most aspects of social life revolve around it on a daily basis. The growth of a nation's infrastructure fuels the development of its people and activities. The advancements we've made would not be possible without electricity. Electricity has invaded every corner of our lives. We need electricity to run infrastructures that make our lives easier, productive, and efficient. Those infrastructures also save lives. Our civilization has come to the point where we cannot think of anything without electricity. Electricity distribution companies measure the distributed electricity consumption in two ways- prepaid metering and postpaid metering. As the name implies, prepaid meters require customers to pay for their electricity beforehand. The users can choose the amount that they need according to their usage and the digital screen also allows them to monitor their usage. The users can use their monthly recharge as a limit to their electricity usage or the meter can be topped up throughout the month if necessary. On the other hand, Post-paid meters enable consumers to pay after they have already consumed the electricity. This means that meter reader takes the meter reading and bill will be sent to the consumer (Baptista, 2015).

Customer education has been defined in a variety of ways in the literature, particularly in consumer behavior studies. Consumer education, according to Nelson et al. (1977), entails the development of skills, concepts, and understanding to assist consumers in achieving maximum satisfaction and maximizing the use of their human and material resources. Consumer education studies in the service marketing and management literature emphasize the importance of presenting information about goods, services, and their providers in order to improve basic and in-depth knowledge, as well as develop skills for using information in a service quality perspective (Burton, 2002). Customer education promotes decision-making in changing settings and gives people more control over their financial fate, resulting in increased personal happiness and appreciation (Oumlil et al., 2000). For example, if service organizations explain to customers why a given service delivery system exists and how they can benefit from it, customers will be more appreciative of the service as a result of this education (Stepanek, 1980). Customers lower their perceived risk after gathering a lot of information about available options. This risk could stem from a lack of confidence in the product's ability to match their expectations, or from the influence of others (such as family or friends) on their purchasing decisions. Several research (Beatty and Smith, 1987) have found that raising the perceived risk connected with a product leads to a greater desire for knowledge. Customers can also profit from higher purchasing power as a result of more effective buying (Oumlil et al., 2000), which allows them to protect their rights and interests while also advancing societal civilisation and progress (Purutcuoglu and Bayraktar, 2004).

Consumers must be educated in sociality in order to perform their role, which includes understanding the service organization's values, as well as how to operate within the services cape and developing knowledge and skills to interact with employees and other customers during service encounters (Kelley et al., 1990). Consumer education programs can assist consumers understand their role and what to expect from the service delivery process even before they encounter it. Formalized consumer orientation programs, written documents presented to consumers (Zeithaml et al., 2012), service workers and other customers or users learning, and signals and cues distributed within the services cape are examples of such programs (Bonfanti, 2013).

Burton (2002) cites three alternative approaches to the relationship between consumer education and service quality in his research. In a competitive strategy perspective, the first approach contends that consumer education can be used as a core element of service quality: consumer education allows service organizations to differentiate themselves from competitors, adds value to service offerings, increases loyalty, and aids in customer retention (Burton, 2002). Customer education has been found to be positively associated with customer expertise (Bell and Eisingerich, 2007): when customer expertise is high, the positive effect of technical service quality on customer loyalty is stronger, whereas the positive relationship between functional service quality and customer loyalty is weaker. Furthermore, when customers gain experience, they perceive a lower danger of switching companies and, as a result, are more confident in evaluating competing options (Heilman et al., 2000).

According to historical archives, prepaid metres were initially utilised 100 years ago (Samita & Devidas, 2018). General Electric (GE) produced the first coin-operated prepayment metres in 1899, which were similar to telephone booths. Technology advancements led to the introduction of new generations of Prepaid Meters that used magnetic cards and then smart cards. The metre is fitted with a keypad that resembles a telephone for charging reasons in the present generation. The prepaid metre was introduced in Nigeria in 2006 by the Power Holding Company of Nigeria (PCHN) in order to improve revenue collection and generate more money. There was no need for metre readings or estimated billing methods, as a result of the pre-paid metres. Since the system's introduction, customers and the power network operator have had to deal with several problems. In April of this year, the Nigerian Electricity Regulatory Commission (NERC) approved the operation of 22 companies as prepaid metre suppliers in Nigeria.

Most often, prepayment metering is defined as the practise of paying for electricity, gas, and other energy before it is used. Involvement of the customer in purchasing credit, which is subsequently put to use by the customer (Chandler, 2005). There are several advantages to paying

for electricity in advance, including the opportunity for clients to better manage their power use and the flexibility to split their energy costs. An alternative to the cash-based model is the pre-paid one, which encourages a variety of social behaviours that go beyond the strictly financial in nature.

Prepaid metre users don't have to worry about paying their monthly payment on time, whereas post-paid metre users have to do so. Due to the late payment, they will have to pay an extra charge. Meter readers are the only way they can get by. Consequently, there is a risk of corruption inside the organisation. The metre readers may not be able to visit every property on occasion due to unforeseen reasons. When distribution companies are required to charge clients based on estimations of their use, consumer dissatisfaction may arise.

The Ibadan Electricity Distribution Company adopted and deployed prepaid metres in order to improve efficiency, the quality of service given, and the ability of users to regulate the cost of electricity. It was hoped that the introduction of the prepaid metres would alleviate many of the problems associated with post-paid metres. Consumers had no control over their energy consumption, unpleasant disconnection and high reconnection fees; high reconnection fees; corruption during the process of disconnecting and reconnecting power; and estimated bills that would be hilarious if it weren't for the fact one had to pay the bills in the first place (Kinyoda, 2013).

Since the dawn of the digital age, consumer satisfaction has become an increasingly significant factor in practically every company and sector. According to the above statement, customer satisfaction depends on a company's capacity to create an image of itself in the minds of its clients, where customers feel confident that the company's product will meet their needs and exceed their expectations. The amount of customer happiness is a key determinant of a company's success. It's always about the customers first when a company is first getting established. Companies that excel at meeting and exceeding the expectations of their clients will remain at the top of their game. Corporate organisations nowadays recognise that customer happiness is crucial to the success of their businesses, and at the same time, plays an important role in the growth of their market value. Individuals who buy items and services from a market or firm that meet their needs and aspirations are referred to as consumers. Customers expect products to meet their financial expectations when they buy them. The quality of the product that attracts and retains consumers should be considered when deciding on a company's pricing.

Consumer satisfaction is low in most power distribution companies in many countries today, including Nigeria (Jimoh et al., 2022). Satisfied customers may be described as those who are completely satisfied with the service provider's attainment of certain goals, objectives, and desires and who have a positive attitude about the service provider's reaction to their expectations (Hansemark & Albinson, 2004). Managers must create a plan that would improve the company's profit margin by increasing customer loyalty and repeat purchases of a certain brand of goods, among other advantages. When it comes to building and sustaining a market segment for yourself, Naumann et al. (2001) recommend that customer satisfaction serves as the pivot or the major approaches and tactics that organisations utilise.

Customer unhappiness with the company's failure to offer customer-friendly service hours to recharge pre-paid metres when customers run out of credit is another area of disagreement for those who subscribe to the usage of pre-paid metres. IBEDC and other organisations are now working to resolve technical challenges, such as network problems, that are preventing many consumers from recharging their devices.

As a consequence of a lack of stakeholder participation, pre-paid metres have not been adopted by consumers, despite the fact that they provide major advantages. Since clients have a bad impression of the services and poor customer care, they are less likely to use them. When it comes to customer happiness, it's all about the state of the client's mind and the expectations they have for the service to match or exceed those expectations. In order to meet or surpass customer expectations, service providers must bring innovation to bear, whether incremental or dramatic. Prepaid metres are unsatisfactory; thus, most customers illegally connect and advocate for a post payment metre system to be implemented. These challenges include the cost of installing pre-paid metres; user friendliness; the longevity of pre-paid metres; and, most critically, the reliability of

pre-paid metres (Quayson-Dadzie, 2012). Prepaid metres have a negative influence on customer happiness because of all of these difficulties, thus this study examines how customers feel about their usage of metres and how they affect customer satisfaction.

The general purpose of the study is to probe customer satisfaction of pre-paid meter usage. Specifically, the study seeks to: (i) investigate challenges facing customers using pre-paid meters in Ile-Ife Metropolis; (ii) examine the relevance of prepaid meter usage over the post-paid meter usage within Ile-Ife Metropolis; (iii) evaluate the level of customer satisfaction with respect to pre-paid meter usage. Research Questions: (i) What challenges confronts customers using pre-paid meters within Ile-Ife Metropolis? (ii) What is the relevance of prepaid meter usage over the post-paid meter usage within Ile-Ife Metropolis? (iii) What is the level of customer satisfaction with respect to pre-paid meter usage? Research Hypothesis: there is no significant difference in the consumer satisfaction across those using prepaid meter for residential, commercial and both.

## METHODOLOGY

The study used descriptive research designs. This descriptive research design was preferred because the study investigate the prepaid meter system on consumer's satisfaction with a particular focus on Ibadan Electricity Distribution Company. The population for the study consisted 17,551 prepaid meter usage customers in Ile-Ife. The sample for the study consisted 204 prepaid user customers selected using stratified sampling techniques. From the seven (7) exiting service hubs in Ile-Ife, four (4) service units were randomly selected which include Mayfair Service Unit, Fajuyi Service Unit, Oke-Do Service Unit and Oke-Soda Servic Unit. The sample was calculated using Fishers (1995) which has ideal formula for targeted population. Primary Data was collected using questionnaires. The instrument used for the study was questionnaire namely "Customer Education and Satisfaction of Prepaid Meter Usage in Ibadan Electricity Distribution Company". Cronbach Alpha ( $\alpha$ ) was used to test validity of the research instrument. The output gave Reliability Statistics which showed Cronbach's alpha of 0.701. According to George & Mallery, (2003) Cronbach's alpha of 0.7 or above is reliable. Data collected were analyzed using inferential statistics.

## RESULTS

**Research Question one:** What challenges confronts customers using pre-paid meters within Ile-Ife Metropolis?

To answer this question, the challenges confront customers using pre-paid meters were first established through their responses to items on Section B of Customer Education and Satisfaction of Prepaid Meter Usage in Ibadan Electricity Distribution Company, Ile-Ife Business Hub using frequency and percentage. The results were presented in the Table 1.

Table 1 presents the challenges confronting customers using pre-paid meters in Ile-Ife Business Hub. It can be seen that the most challenge that customers using prepaid meter had was that "They experienced more blackouts after switch to prepaid system" with the largest RSI value of 0.6495. This means that majority at 32.4% (66) of the sampled users experienced more blackouts since switching to a prepaid billing system and also unsure of how long the prepaid meters will be operational while 18.6% strongly disagreed with the claimed. This indicates that prepaid meter users experienced more blackouts and this can result to bypassing of meter by some customers. This was closely followed in terms of usage as indicated by respondents as "The system is disadvantageous to the poor since without money to buy pre-paid, you cannot us electricity" and "I am used to the post-paid meter system so am not comfortable with prepaid meter" with RSI values of 0.5944 and 0.5637 respectively. The least challenges confronted prepaid customers usage as indicated by the respondents was "I am use to the post payment system so it not convenient using prepaid" with the least RSI value of 0.5012. This was followed by "It is taking a long time for me to adjust to change" and "Difficulty in pre-financing as other users complain of not having money" with the RSI values of 0.5025 and 0. 5368 each.

Table 1. Challenges confronts customers using pre-paid meters within Ile-Ife Metropolis

SN	Statements	SD		D		N		A		SA		RSI	Rank
		F	%	F	%	F	%	F	%	F	%		
1	I am used to utilising the post-paid method, therefore using prepaid is inconvenient for me.	89	44	37	18	9	4.4	30	15	39	19	0.49	11
2	Because I am still getting used to the new system, I have experienced more blackouts since switching to a prepaid billing system. I am also unsure of how long the prepaid metres will be operational for.	44	22	66	32	29	14	26	13	39	19	0.5	10
3	When you buy more than once a month, your electricity bill is higher than it was previously. Spend more money and get a smaller unit.	38	19	51	25	25	12	48	24	42	21	0.55	5
4	We constantly get into an argument about who gets what portion of the bill.	39	19	47	23	25	12	53	26	40	20	0.55	6
5	Pre-financing has proven difficult due to complaints from other users about not having enough money.	36	18	41	20	33	16	40	20	54	27	0.56	4
6	The system is detrimental to the poor because they are unable to use electricity unless they have money to purchase pre-paid electricity.	35	17	48	24	29	14	54	27	38	19	0.55	7
7	Prepaid metres are used less often because of a lack of information.	59	29	40	20	23	11	50	25	32	16	0.51	8
8	Because I am used to the post-paid metre system, I feel uncomfortable with the prepaid metre system.	37	18	45	22	31	15	53	26	38	19	0.54	9
9	I am used to utilising the postal payment method, therefore using prepaid is inconvenient for me.	39	19	43	21	16	7.8	64	31	42	21	0.59	2
10	Because I am still getting used to the new system, I have experienced more blackouts since switching to a prepaid billing system. I am also unsure of how long the prepaid metres will be operational for.	38	19	29	14	12	5.9	66	32	59	29	0.65	1
11	When you buy more than once a month, your electricity bill is higher than it was previously. Spend more money and get a smaller unit.	36	18	46	23	31	15	32	16	59	29	0.56	3

**Research Question Two:** What is the relevance of prepaid meter usage over the post-paid meter usage within Ile-Ife Metropolis?

To answer this question, the relevance of prepaid meter usage over the post-paid meter usage were determined through the responses to items on Section C of Customer Education and Satisfaction of Prepaid Meter Usage in Ibadan Electricity Distribution Company, Ile-Ife Business Hub using frequency and percentage. The results were presented in the [Table 2](#).

Table 2. Relevance of prepaid meter usage over the post-paid meter usage within Ile-Ife Metropolis

SN	Statements	SD		D		N		A		SA		RSI	Rank
		F	%	F	%	F	%	F	%	F	%		
1	As a result of switching to a prepaid billing system, I am more conscientious about how much power I use each month. I no longer squander electricity the way I used to. I pay less because I am more aware of how much I use each month.	27	13	35	17	19	9.3	71	35	52	26	0.6	2
2	Since I purchase before I use, there is no problem with bill payment, and I can buy credit whenever I want without concern of being disconnected.	25	12	36	18	45	22	51	25	47	23	0.5	11
3	When I don't use the metre, I don't have to pay anything. When I travel for a long period of time, I can turn off my metre and not have to pay anything. There is no more disappointment when one is unsure how much to pay when using post metres. When using a post-paid metre, I have no idea how much to pay.	24	12	53	26	29	14	52	26	46	23	0.6	8
4	Since I began using a prepaid metre, there has been no disconnection, and there is no need to pay a re-connection cost.	44	22	30	15	28	14	57	28	45	22	0.6	9
5	As a result of switching to a prepaid billing system, I am more conscientious about how much power I use each month. I no longer squander electricity the way I used to. I pay less because I am more aware of how much I use each month.	56	28	26	13	15	7.4	53	26	54	27	0.6	5
6	Since I purchase before I use, there is no problem with bill payment, and I can buy credit whenever I want without concern of being disconnected.	28	14	51	25	24	12	55	27	46	23	0.6	6
7	When I don't use the metre, I don't have to pay anything. When I travel for a long period of time, I can turn off my metre and not have to pay anything. There is no more disappointment when one is unsure how much to pay when using post metres. When using a post-paid metre, I have no idea how much to pay.	34	17	32	16	31	15	49	24	58	28	0.6	7
8	Since I began using a prepaid metre, there has been no disconnection, and there is no need to pay a re-connection cost.	26	13	20	9.8	24	12	73	36	61	30	0.7	1

SN	Statements	SD		D		N		A		SA		RSI	Rank
		F	%	F	%	F	%	F	%	F	%		
9	As a result of switching to a prepaid billing system, I am more conscientious about how much power I use each month. I no longer squander electricity the way I used to. I pay less because I am more aware of how much I use each month. Since I purchase before I use, there is no problem with bill payment, and I can buy credit whenever I want without concern of being disconnected.	24	12	35	17	24	12	62	30	59	29	0.6	3
10	When I don't use the metre, I don't have to pay anything. When I travel for a long period of time, I can turn off my metre and not have to pay anything. There is no more disappointment when one is unsure how much to pay when using post metres. When using a post-paid metre, I have no idea how much to pay.	11	5.4	46	23	35	17	55	27	57	28	0.6	4
11	Since I began using a prepaid metre, there has been no disconnection, and there is no need to pay a re-connection cost.	44	22	25	12	32	16	61	30	42	21	0.6	10
12	As a result of switching to a prepaid billing system, I am more conscientious about how much power I use each month. I no longer squander electricity the way I used to. I pay less because I am more aware of how much I use each month.	35	17	42	21	35	17	50	25	42	21	0.5	12

The results in [Table 2](#) presented the relevance of prepaid meter usage over the post-paid meter usage within Ile-Ife Metropolis. It can be seen that the most relevance of prepaid meter over prepaid meter as identified by the respondents was that “Since I began using a prepaid metre, there has been no disconnection, and there is no need to pay a re-connection fee.” with the highest RSI value of 0.648; followed by “ I pay less because I am more aware of how much I use each month” with RSI value of 0.635 and this was closely followed by “No more disappointment when one is uncertain how much to pay” with RSI value of 0.632. The least relevance of prepaid meter usage over the post-paid meter usage as indicated by the respondents was “NO need to pay for re-connection fee; I do not waste electricity the way I use to; and There is no disconnection since I started using prepaid meter” with RSI value of 0.536, 0.537 and 0.545 respectively.

**Research Question 3:** What is the level of customer satisfaction with respect to pre-paid meter usage?

Table 3. Mean score customer satisfaction with respect to pre-paid meter usage

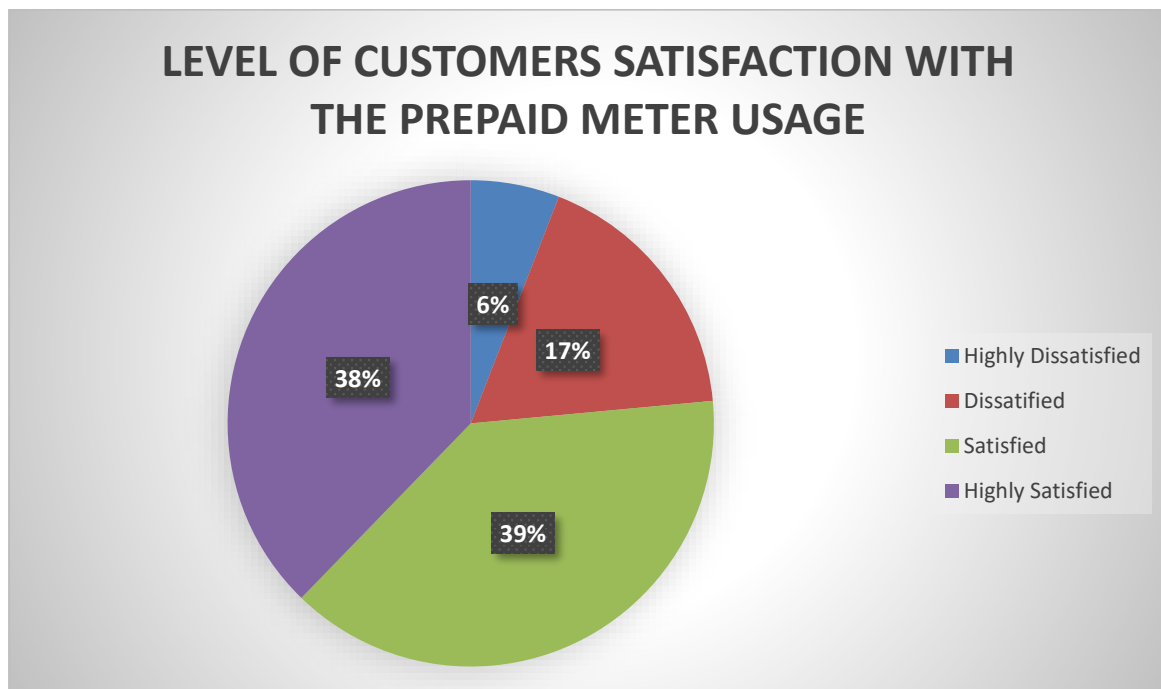
	N	Minimum	Maximum	Mean	Std. Dev.
Customer satisfaction	204	4	36	20.8284	6.7943
Valid N (listwise)	204				

Table 3 shows the responses of 204 customers using prepaid meter in Ile-Ife with a mean value of 20.83 and standard deviation of 6.79. Also, the maximum and minimum values obtained by the customers are 36.00 and 4.00 respectively. To avoid bias in the categorization of the level of customer's using prepaid meter, the mean value obtained was used to categorize level of customers. The results are presented in the Table 4 below.

Table 4. Level of customer satisfaction with respect to pre-paid meter usage

Satisfaction Level	Frequency	Percentage	Minimum	Maximum
Highly Dissatisfied 4-10	12	5.9	4	10
Dissatisfied 12-19	36	17.6	28	36
Satisfied 20-27	79	38.7	20	27
Highly satisfied 28-36	77	37.7	12	19
Total	204	100		

The table showed that 5.9% (12) of the sampled customers highly dissatisfied with the respect to prepaid meter usage in Ile-Ife, 17.6 % (36) dissatisfied with the prepaid meter usage while 38.7% (79) of the customers satisfied with the usage of prepaid meter and 37.7 % (77) of the customers highly satisfied with the usage of prepaid meter in Ile-Ife.



**Hypothesis One:** There is no significant difference in the consumer satisfaction across those using prepaid meter for residential, commercial and both.

Table 5. Difference in the consumer satisfaction across those using prepaid meter for residential, commercial and both

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	48.754	2	24.377	0.526	0.592
Within Groups	9322.241	201	46.379		
Total	9370.995	203			

$p > 0.05$

The results showed that there is no significant difference in the consumer satisfaction across those using prepaid meter for residential, commercial and both ( $F = 0.526$ ,  $p > 0.05$ ). Therefore, the hypothesis which stated that there is no significant difference in the consumer satisfaction across those using prepaid meter for residential, commercial and both was not rejected

## DISCUSSION OF FINDINGS

It was revealed from the study that majority of the respondents experienced more blackouts after switching to prepaid meter system. A similar finding was made in Ontario, Canada, where 25% of the sampled electricity users used approximately 20% less energy than they were using under the previous metering-and-billing system because the display segment of the prepayment metre made them aware of how much energy they were using, which resulted in energy-saving adjustments to their usage patterns (Casarin & Nicollier, 2008). The measures taken by customers at the end of the day will assist to lower total energy demand in the nation, alleviating the need on the government to enhance generating capacity immediately.

The findings also revealed that the system was detrimental to the poor, who were unable to utilise energy because they lacked the financial means to purchase pre-paid electricity. This result was consistent with the findings of the research done by Ogujor and Otasowie (2010), who concluded that prepaid systems enable appropriate and proper invoicing of clients despite the fact that they are more expensive. Additionally, customers, according to Oracle (2009), are not in favour of the prepaid payment method.

## CONCLUSION AND RECOMMENDATION

Customer education promotes decision-making in changing settings and gives people more control over their financial fate, resulting in increased personal happiness and appreciation. Based on the findings, the researchers recommend that IBEDC should sensitize the customers before introducing prepaid meters to them for this would enhance the level of customer satisfaction.

## REFERENCES

- Baptista, I. (2015). 'We Live on Estimates': Everyday Practices of Prepaid Electricity and the Urban Condition in Maputo. *Mozambique. Int J Urban Regional*, 39: 1004-1019. <https://doi.org/10.1111/1468-2427.12314>
- Beatty, S. E., & Smith, S. M. (1987). External Search Effort: An Investigation Across Several Product Categories. *Journal of Consumer Research*, 14(1), 83-95. <https://doi.org/10.1086/209095>
- Bell, S. J., & Eisingerich, A.B. (2007). The Paradox of Customer Education: Customer Expertise and Loyalty in the Financial Services Industry. *European Journal of Marketing*, 41(5/6), 466-486. <https://doi.org/10.1108/03090560710737561>
- Bonfanti, A. (2013). Towards an Approach to Signage Management Quality (SMQ). *The Journal of Services Marketing*, 27(4), 312-321. <https://doi.org/10.1108/08876041311330780>
- Burton, D. (2002). Consumer Education and Service Quality: Conceptual Issues and Practical Implication. *Journal of Services Marketing*, 16(2), 125-142. <https://doi.org/10.1108/08876040210422673>
- Casarin, A. & Nicollier, A. L. (2008). Prepaid meters in electricity: A cost-benefit analysis. IAE Working Paper Series, IAE Business School, Austral University. <https://doi.org/10.4337/9780857930422.00011>

- Chandler, T. (2005). The technology development of automatic metering and monitoring systems. *2005 International Power Engineering Conference, 2005*, pp. 1-147. <https://doi.org/10.1109/IPEC.2005.206895>
- Hansemark, O. C. & Albinson, M. (2004). Customer Satisfaction and Retention: Pitman publication
- Heilman, C. M., Bowman D., Wright G. P. (2000). The Evolution of Brand Preferences and Choice Behaviors of Consumers new to a Market. *Journal of Marketing Research, 37*(2), 139-155. <https://doi.org/10.1509%2Fjmr.37.2.139.18728>
- Jimoh, K., Kayode, A. A., & Obadiora, A. J. (2022) Survey on customer satisfaction of Ibadan electricity distribution company, Ile-Ife business hub. *International Journal of Advanced Research, 8*(3), 157-167.
- Kelley, S. W., Donnelly J. H. Jr, & Skinner S. J. (1990). “Customer Participation in Service Production and Delivery”, *Journal of Retailing, 66*(3), 315-335.
- Naumann, E., Jackson, D. W., & Rosebaum, M. (2001). How to Implement Customer Satisfaction Program. *Business Horizon, 44*(1), 37-48.
- Nelson, H. Y., Jacoby, P. G., & Shannon, T. M. (1977). Evaluation of Homemaking and Consumer Education Programs for Low Income Adults. *Home Economics Research Journal, 6*(3), 223-241. <https://doi.org/10.1177/1077727X7800600305>
- Ogujor, E. A., & Otasowie, P. O. (2010). The impact of the pre-paid meter on revenue generation in Nigeria. *The Pacific Journal of Science and Technology, 1*(1), 138–142.
- Oracle, (2009). *Serve prepaid customers without prepayment meters*. Oracle white paper. Available from <http://www.oracle.com/us/industries/utilities/046584.pdf>
- Oumlil, A. B., Williams A. J., Oumlil, L. (2000). Consumer Education Programs for Mature Consumers. *Journal of Services Marketing, 14*(3), 232-243. <https://doi.org/10.1108/08876040010327239>
- Purutcuoglu, E., Bayraktar, M. (2004). Investigating the Need for Consumer Education among Turkish Secondary School Students. *International Journal of Consumer Studies, 28*(5), 443-453. <https://doi.org/10.1111/j.1470-6431.2004.00403.x>
- Quayson-Dadzie, J. (2012). *Customer perception and acceptability on the use of prepaid metering system in Accra west region of Electricity Company of Ghana*. (Unpublished master’s thesis submitted to the institute of distance learning, Kwame Nkrumah University of science and technology.
- Samita, M., & Devidas, G. (2018). Consumers perception and satisfaction of Switching room postpaid to prepaid model in electricity consumption. *International Journal of Business, Management and Allied Sciences, 5*(1).
- Shodiya, Ojenike, Jolaosho & Adebayo (2018). Service Quality and Customer Satisfaction of Electricity Distribution Company: A Study of Olumo Business Hub, Abeokuta, Ogun State. *Asian Journal of Economics, Business and Accounting, 8*(4), 1-18. <https://dx.doi.org/10.2139/ssrn.3391404>
- Stepanek S.H. (1980). “Educate your Customers to Appreciate Service”, *Business Horizons, 23*(4), 21-22.

---

Zeithaml V.A., Bitner M.J., Gremler D.D. (2012). *Services Marketing: Integrating Customer focus Across the Firm*. Second European edition. Berkshire: McGraw-Hill.



Copyright (c) 2022 by the authors. This work is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-sa/4.0/).