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# Effects of Perceived Product Quality on Customers' Preference for Pre-Paid Electricity Metering System in Ekiti State, Nigeria

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## ABSTRACT

This paper analyzed the effects of perceived product quality on customers' preference for pre-paid electricity metering system in Ekiti State, Nigeria. Primary method of data collection was used. Data were sourced through the use of structured questionnaire administered on carefully selected sample of 381 electricity customers using pre-paid metering system within Ado-Ekiti metropolis in Ekiti State through systematic sampling technique. Multiple regression was adopted to analyze the extent of influence of perceived product quality on customers' preference. The results revealed that perceived product quality with safety, reliability and performance have positive and significant effect on customers' preference for pre-paid electricity metering system. The study concluded that electricity customers prefer the pre-paid metering system as a result of perceived product quality.

**Key words**: Electricity Metering System, Product Quality, Pre-paid Metering, Customers' Preference

## INTRODUCTION

Electricity has over the decades become not only the next important ingredient for living after air and water but is extensively used in all areas of human endeavor whether administrative, industrial, commercial, or residential (Azodo, 2014). The basic usefulness of electricity ranges from homes, health care delivery, social services, industry, education, agriculture to defense and of course in some nations, transportation (Olokoba, Ibrahim & Abdulraheem-Mustapha, 2010). For instance, Azodo and Adejuyigbe (2013), Isola (2007) and Makoju (2002) opined that considerable number of studies buttressed that electricity is one of the most important necessities for living. Domestic activities which involve the use of electricity include cooking, refrigerating, washing, ironing, lighting, entertainment, air conditioning, pumping of water etc. (Ekpo, Chuku & Effiong, 2011). In the past, electricity was seen as a public utility in the Nigerian society, hence, considered a free gift from government. Its generation, transmission and distribution was the sole responsibility of the Federal Government with little complements from State and Local Governments; whereas, citizens considered it a social amenity and part of the feedback from the payment of their taxes. In this case, it was unusual for the then electricity supplying organization (the defunct Electricity Corporation of Nigeria (ECN) and the erstwhile National Electric Power Authority (NEPA)) to bill her customers for payments (Azodo, 2014).

Meanwhile, considering rapid industrial and economic growth coupled with event of urbanization from the last century, the need and demand for electricity was on the rise because of its perceived meaningfulness to quality of life of users. Thus, Neenam (2010) opined that the formulation and implementation of new policies towards ensuring sustenance and fair distribution of electric supply and its billing system became necessary. However, due

to the unprecedented global economic growth, rapid economic integration and inevitability of electricity supply in powering essential parts of the economy to meet the 21st century market demand, Usman (2013) maintained that the then Federal Government of Nigeria privatized the sector in order to meet the complexity of demand for electricity supply and ensuring standardization and effective management of the industry. This decision brought about the handing over of the sector to Power Holding Company of Nigeria (PHCN) Plc on 31st May, 2005 and subsequent unbundling of the sector into 18 successor companies as a result of Electricity Power Sector Reform (EPSR) Act of March 11, 2005 (Emeana, 2005). Despite the privatization, the power sector under the management of private investors has experienced frequent interruption, total black-out, insufficient and epileptic power supply, unfair and inequity billing system etc. This unfortunate poor performance according to Moyo (2012) led to tagging the industry as relatively worse than the regional and world average records. Even at the peak of this ugly event of poor service delivery, customers are being forced to pay for the service they never enjoyed via the post-paid billing system. However, a pre-paid energy meter enables power utilities to collect power bills form the customers before usage by virtue of purchasing credit amount and 'load' unto the PPM which then allows the customer to consume electricity up to the amount of credit purchased, thereby lowering the percentage of electricity revenue lost to power theft, incorrect meter readings and wrong billing, and reluctance of customers to pay electricity bills on time (Jain, 2011). In contrast, according to Usman (2013), pot-paid system entails customers paying for energy at the end of a usage period, typically monthly, without foreknowledge of how much energy they have been using or what it will cost. For customers in this category, majority considers frequency of meter reading as poor and not satisfactory. Without doubt, this led to inability of service users considering payment for service poorly or not delivered. The results led in 2006 to the introduction of the pre-paid electricity metering system that ensures payment of service before usage in order not only to sustain prompt payment and easy revenue generation by the organization (Azodo, 2014) but also provide customer satisfaction. Therefore, the objective of this study is to determine effectiveness of perceived product on customers' preference for pre-paid electricity metering system.

## LITERATURE REVIEW

### Electricity Metering System

Basically, there are two metering systems prevalent in Nigeria which are credit and pre-paid metering systems. According to Chisanga (2006), credit system is a traditional way of metering, which keeps records of number of units (in kwh) consumed during power usage. Notably, the billing is done through monthly reading of the meter (kwh) consumption rate, and payment is made after such bill has been posted or presented to the designated customer. However, the credit metering system gives the customer a leeway in settling the bill. While on the other hand, pre-paid metering system requires the customer to pay for electricity before consuming, allowing electricity users to consume energy only when they have credit in an electricity account as electricity will self-disconnect when credit is exhausted (Casarin & Nicollier, 2009). More significantly, this is the most appreciated and widely used metering system across the globe which helps in effective management of consumption rate by consumers and strategic way of dealing with bad debt (Casarin & Nicollier, 2009; Jain, 2011). By the late 2000s, pre-payment systems were very popular in India, South Africa and some under-developed countries (Estache *et al.*, 2010).

In a similar development, Power Holding Company of Nigeria (PHCN) Plc introduced digital pre-paid meter in 2006 which operation is similar to the loading of a recharge card in the Global System for Mobile communication (GSM) handset (Ogujor & Otasowie, 2010).

More recently, faced with huge customer debt profile and revenue collection challenges, PHCN (before its privatization) and National Power Authority of Sierra Leone introduced pre-paid electricity meters in 2006 and 2007 respectively (Miyogo, Nyanamba & Nyangweso, 2013). The decisions were motivated to boost revenue collections and limit debts to power distribution companies (Ogujor & Otasowie, 2010).

***Perceived Product Quality***

Quality is defined as the ability of product or service to meet the consumer's need and wants or expectation (Usman, 2013). Quality and preference are conceptually exclusive, but empirically related (Lee & Lee, 2010). A product's quality is determined when it is produced and not easily changed unless it is critically damaged or transformed while preference of individual for a product or service changes at times (Heilman, Bowman & Wright, 2000) and it is continuously influenced by outside stimuli such as satisfaction, quality and cost (Devaraj, Fan & Kohli, 2002) as well as physical and psychological features of the product (Cobb-Walgren, Ruble & Donthu, 1995). Lee and Lee (2010) argued that since quality is perceived as an exogenously given attribute to customer, preference is dynamically influenced by the quality. Therefore, it is proposed that when the customer perceives the high quality for the product, his preference for the product will increase. Meanwhile, as contributed by Garvin (1998) and Jakpar *et al.* (2012) in measuring quality of a product, the following approaches are weighed and these include: (1) product-based approach, (2) user-based approach, (3) manufacturing-based approach, and (4) value-based approach. Parasuram, Zeithaml and Berry (1998) contributed further that product quality determines the fitness usage of such product by its consumer, and helps to verify if such product does what is expected and the features meet customer's needs, reliability and trust.

Based on these parameters, the first hypothesis of the study is defined as;

***$H_1$ = Perceived product quality does not significantly influence customers' preference for pre-paid electricity metering system***

**Empirical Literature Review**

Suchanek, Richter, and Kralova (2014) carried out an investigation on analysis of quality, customer satisfaction and business performance in food industry. The main objective of the research is to determine the influence of quality on customer satisfaction and on business performance and competitiveness. In particular, the study answers the several research questions such as: does the quality of a product result in a satisfied customer and thereby in a well-performing business? Satisfaction was examined by the means of survey using questionnaires, and the performance was measured by financial data. The result shows a correlation between product quality and satisfaction. That is, customers are more satisfied with the good quality of the product.

Jakpar *et al.* (2012) conducted a research based on examining the product quality attributes that influences customer satisfaction most when the price was discounted: a case study of Kuching Sarawak. The study was about customer satisfaction towards the product quality. The research instrument used in collecting the data is questionnaire. Non-probability sampling method was used in choosing the respondents. The result inferred that the customer satisfaction towards the discounted product quality is based on the three attributes most namely perceived quality, performance and reliability. The perceived quality on image, brand name and advertising is positively related to the level of satisfaction towards the quality of discounted product; were all supported as the relationships between the variables were statistically significant.

Yee, San, and Khoon (2011) conducted a research to study the relationships of perceived quality, perceived value and perceived risk that will affect Malaysia consumer purchase decision towards cars purchases. Survey using convenience sampling was

conducted at Klang Valley to customers' age between 23-65 years old and above. Questionnaires were distributed to 200 respondents at the sampling location. All the 200 sets of data were reliable where Cronbach's alpha is more than 0.6. Pearson correlation also showed the strength of the relationship between those variables and normality assumption was met. Results from multiple regression analysis showed the positive association between the three factors mentioned previously with purchase decision. The results from this research provided a platform for Malaysia automobile makers to understand consumer behavior and how it affects their purchase decision.

Shaharudin *et al.* (2011) determine the level of product quality based on the eight quality dimensions framework and the relationship towards buyer purchase behavior. For a good understanding of the study, a case study of Malaysia's national motorcycle/scooter manufacturer has been used by considering the lack of theoretical studies being conducted on the sales of motorcycle/scooter products. In this study, the result shows the level of customer perceptions has no significant impact on the customer purchase decision. The customers are looking at other elements beyond quality perceptions on their purchase decision and only they themselves understand what they are actually looking for. Buyers may not rely on the perception of quality alone in deriving intention to or not to purchase any motorcycle/scooter product.

Tsiotsou (2006) investigated the effects of perceived product quality and overall satisfaction on purchase intentions. Moreover, the direct and indirect effects of values and involvement on purchase intentions were studied. The study utilized the survey questionnaire and used sport shoes as the product being researched. The sample consisted of 197 students who responded to an anonymous questionnaire. Five hypotheses were tested and four of them were confirmed by the data. Perceived quality had a direct and indirect influence (through overall satisfaction) on purchase intentions, overall satisfaction and had a direct effect on purchase intentions and involvement had an indirect effect on purchase intentions through overall satisfaction and perceived quality.

## RESEARCH METHODS

### Research Design and Sample Size

Descriptive survey research design was adopted in administrating mailed questionnaire to a sample of 381 electricity customers of BEDC within Ado-Ekiti metropolis; using Yamane (1964) model. From the distributed questionnaire, a total of 209 (54.8%) was successfully completed, returned and collated for the study.

The questionnaire contained four (4) sections; Section (A) contained respondents' socio- demographic variables as shown in Table 2; Section (B) contained variables relating to perceived product quality as adopted from Garvin (1998) and Jakpar *et al.* (2012); Section (C) contained variables relating to perceived service quality as adopted from Parasurama *et al.* (1998) and Carvalho and Leite (1999); and Section (D) covered variables relating to customers' preference as adopted from Usman (2013). However, it is worthy of note that the dependent variable in this study is customers' preference while the independent variables are perceived product quality and perceived service quality.

Every 21$^{st}$ customer on the BEDC list using pre-paid meter as derived through systematic sampling technique was administered a questionnaire through self-addressed envelope to their respective mail address extracted from the BEDC records. As a follow-up technique, telephone courtesy contact was also made to confirm receipt of the mailed letter, stimulate their commitment in participating in the survey, and ensuring return of the completed questionnaire to the attached address in the letter within 2 weeks.

Both face and content validities were adopted. To ensure its face validity, the research instrument was given to experts in the subject matter area to assess the appropriateness of each item of the instrument by mere look. Their comments with those of the supervisors were used to obtain final items which was further subjected to content validity by the same experts who eventually ascertained the relevance of each item to traits measured. Reliability was estimated; Cronbach's alpha reliability test of the collated data as shown in Table 1.

**Table 1: Cronbach's alpha reliability co-efficient**

| Variables | Measuring scale | No of items | Reliability (Alpha) |
|---|---|---|---|
| Perceived Product Quality | Performance | 5 | 0.841 |
| | Features | 4 | 0.735 |
| | Reliability | 4 | 0.691 |
| | Conformance | 2 | 0.727 |
| | Durability | 4 | 0.482 |
| | Serviceability | 5 | 0.923 |
| | Safety | 5 | 0.907 |

Source: Field Survey using SPSS

Descriptive statistics (such as frequencies and percentages) and inferential such as multiple regression were used.

## RESULTS AND DISCUSSION

From the demographical section and as presented in Table 2, the result revealed that 133 (63.35%) and 76 (36.4%) are male and female respondents respectively; 50 (23.9%) and 40 (19.1%) respondents are of the age bracket of 51-55 and 46-50 respectively; where over 70% (151) were married and 141 (67.5%) have gained tertiary education qualification as at when examined. Furthermore, the demographic result showed that 121 (58%), 61 (29%) and 27 (13%) respondents were of residential, commercial and special users respectively.

From the extracted result, it can then be deduced that major pre-paid meter users in Ado-Ekiti metropolis are matured, married, educated and mostly responsible in footing electricity bills in their respective residential apartments. Hence, data collected from this group of people can be reliable and credible in justifying results of the study.

**Table 2: Demographic distribution of respondents**

| Variables | Frequency | Percent |
|---|---|---|
| **Gender Distribution** | | |
| Male | 133 | 63.6 |
| Female | 76 | 36.4 |
| **Total** | **209** | **100.0** |
| **Age Distribution** | | |
| 30-35 years | 44 | 21.1 |
| 36-40 years | 37 | 17.7 |
| 41-45 years | 33 | 15.8 |
| 46-50 years | 40 | 19.1 |
| 51-55 years | 50 | 23.9 |
| 56 years and above | 5 | 2.4 |
| **Total** | **209** | **100.0** |
| **Marital Status** | | |
| Single | 23 | 11.0 |
| Married | 151 | 72.2 |

| | | |
|---|---|---|
| Divorced | 12 | 5.7 |
| Widow | 23 | 11.0 |
| **Total** | **209** | **100.0** |
| **Educational Qualification** | | |
| Informal Education | 10 | 4.8 |
| Primary | 14 | 6.7 |
| Secondary | 44 | 21.1 |
| Tertiary | 141 | 67.5 |
| **Total** | **209** | **100.0** |
| **Customer** | | |
| Residential | 121 | 57.9 |
| Commercial | 61 | 29.2 |
| Special | 27 | 12.9 |
| **Total** | **209** | **100.0** |

Source: Field Survey (2017)

**Statistical Testing of Hypothesis**

***$H_1$: Perceived product quality and customers' preference of PPM***

To determine the extent of influence of perceived product quality on customers' preference for pre-paid electricity metering system, the respondents' scores on eight variables, *safety, serviceability, durability, conformance, reliability, features, performance and customers' preference* were computed and subjected to multiple regression analysis. From the results as presented in Table 3, the $R^2$ of 0.213 showed that the independent variables – safety, serviceability, durability, conformance, reliability, features and performance caused about 21.3% variance in consumer preference for pre-paid electricity metering system in Ekiti State; while 78.7% variance of the dependent variable is caused by other independent variables not included in the study. However, from the estimated coefficient value, only three independent variables - safety, reliability and performance are statistically significant with p-value of 0.018, 0.000 and 0.037 respectively; with lesser standard value of 0.05. Meanwhile, serviceability, durability, conformance and features are not statistically significant with p-value of 0.091, 0.167, 0.720, and 0.562 respectively.

The significant of the safety result showed that electric shock and exhaust of flame are major determinant in installation process. This is in line with the findings of Auka, Bosire and Matern (2013) that customers are highly concern about safety of their product, hence, it influences their preferences and loyalty for a particular product. The significant of reliability in influencing customer preference for pre-paid metering system implied that the prepaid meter do not bill customers for energy not consumed while the customers may not have to interact with BEDC officials on payment of electricity bills. More so, the customers are confident that the prepaid meter can carry all their electrical loads without any fear of spoilage. This means that respondents' reason for customers' preference for pre-paid electricity metering system is strongly influenced by reliability. This result also corroborates Chisanga (2006) that customers on the prepayment system were paying less for electricity as compared to those on the old system because the tariffs on the new system were lower. According to Neenan (2010), product quality of the PPM with respect to effective performance boosts customers' reliability, confidence and assurance of good value for their money and in making management decision on usage and adoption of PPMs. The outcome of this study also corroborates the research of Suchanek *et al.* (2014) which affirmed a strong correlation between product quality and satisfaction. This implies that customers are more satisfied and ready to purchase a product because of its good quality. It is also in line with the study of Tsiotsou (2006) which concluded that perceived quality had a direct and indirect

influence (through overall satisfaction) on purchase intentions, overall satisfaction and had a direct effect on purchase intentions and involvement had an indirect effect on purchase intentions through overall satisfaction and perceived quality. However, the result of the study conducted by Shaharudin *et al.* (2011) has a contrary outcome which showed that the level of customer perceptions has no significant impact on the customer purchase decision. The customers are looking at other elements beyond quality perceptions on their purchase decision and only they themselves understand what they are actually looking for. Buyers may not rely on the perception of quality alone in deriving intention to or not to purchase any motorcycle/scooter product.

**Table 3: Estimated influence of perceived product quality on customers' preference**

| **Variables** | **Coeff.** | **Std. err.** | **t- value** | **p-value** |
|---|---|---|---|---|
| Safety | 0.049 | 0.020 | 2.393 | 0.018* |
| Serviceability | -0.026 | 0.015 | -1.699 | 0.091 |
| Durability | 0.029 | 0.021 | 1.387 | 0.167 |
| Conformance | -0.010 | 0.029 | -0.359 | 0.720 |
| Reliability | 0.104 | 0.029 | 3.615 | 0.000* |
| Features | 0.017 | 0.028 | 0.581 | 0.562 |
| Performance | 0.050 | 0.024 | 2.102 | 0.037* |
| Constant | 1.538 | 0.481 | 3.194 | 0.002* |
| N = 209 | | | | |
| F = 7.779 | | | | |
| R = 0.462 | | | | |
| R-Squared = 0.213 | | | | |
| Adjusted $R^2$ = 0.186 | | | | |

**Table 4: Analysis of variance ANOVA**

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 13.760 | 7 | 1.966 | 7.779 | .000(a) |
| | Residual | 50.795 | 201 | .253 | | |
| | Total | 64.555 | 208 | | | |

Note: a – Predictors: (Constant), Safety, Reliability, Serviceability, Performance, Features, Conformance, Durability; b – Dependent Variable: Perceived Customers' preference

Furthermore, as represented in ANOVA Table 4, the examined seven (7) independent variables of perceived product quality used in predicting customer preference for prepaid meter show that they are collectively significant with f-value of 7.779 and at significant level of $.000^b$. Hence, according to the rule of thumb in regression model analysis, since the significant value is less than 0.05, there is significant relationship between the predictors and the predicted variable. It can then be deduced that there is strong and positive relationship between perceived product quality and customer preference for PPM, therefore, the hypothesis 1 is rejected.

## CONCLUSION AND RECOMMENDATIONS

The study concluded product quality has significant influence on customers' preference for pre-paid electricity metering system. This implies that electricity customers in Ado-Ekiti, Ekiti state perceive safety, reliability and performance as key parameters in weighing PPM product quality while making their preferences. The rate of damage of prepaid meter is

frequent while the cost of repairing is not bearable and more so, the component parts are not easily accessible. It is established through the results that conformance has a negative influence on customers' preference for pre-paid electricity metering system, this is because despite that the prepaid meters measure accurately electricity consumption, most customers are still not conscious of their consumption and no proper monitoring of their electricity usage.

It is recommended that the management of BEDC should make available prepaid meters to her numerous customers at affordable rate because of the underlying advantages associated with it. There should be an improvement in the quality of PPM to enhance its durability and reduced rate of damage. The component parts should be made accessible while the company should have trained experts to handle its repairs at bearable cost whenever such need arises. Staff of the electricity company should be given adequate training on customer relations and rudiments of the job most especially on the aspect of the tariff plans of customers using PPMs. Also, since majority of the electricity customers in Ado-Ekiti metropolis found the introduction of PPM system useful, it is recommended to be extended to all the rural towns and villages of Ekiti State in order to save them from arbitrary billing, indiscriminate disconnections and perpetual payments of reconnection fees.

## REFERENCES

Asaolu, T. O. & Oladele, P. O. (2006). Public enterprises and privatization policy: The Nigerian experience in Nigerian economy: Essays on economic development education. *Munich Personal RePE archive, MPRA,* 293-394.

Auka, D. O., Bosire, J. N., & Matern, V. (2013). Perceived Service Quality and Customer Loyalty in Retail Banking in Kenya. *British Journal of Marketing Studies, 1*(3), 32-61

Azodo, A. P. & Adejuyigbe, S. B. (2013). Examination of noise pollution from generators on the residents of Obantoko, Ogun State, Nigeria. *Asia Journal of Engineering, Services and Technology, 3*(1), 31-41.

Azodo, A. P. (2014). Electric power supply, main source and backing: a survey of residential utilization features. *International Journal of Research Studies in Management, 3*(2), 87-102.

Babatunde, M. A. & Shuaibu, M. I. (2009). *The demand for residential electricity in Nigeria: Abound testing approach.* Paper presented at the conference of the African Econometric Society (AES) Dakar.

Carvalho de, F. A. & Leite, V. A. (1999). Attribute importance in service quality: An empirical test of the PBZ conjecture in Brazil. *International Journal of Service Industry Management, 10*(5), 487-504.

Casarin, A. A., & Nicollier, L. (2009). *Prepaid meters in electricity: A cost benefit analysis.* Working Paper Series, IAE Business School, Austral University.

Chisanga, K. I. (2006). *An evaluation of the prepayment metering system: A case of Zesco Lusaka Division* (MBA dissertation). The Copperbelt University, Zambia.

Cobb-Walgren, C. J., Ruble, C. A., & Donthu, N. (1995). Brand equity, brand preference and purchase intent. *Journal of Advertising, 24*(3), 25-40.

Devaraj, S., Fan, M. & Kohli, R. (2002). Antecedents of B2C channel satisfaction and preference: validating e-commerce metrics. *Information Systems Research, 13*(3), 316-333.

Ekpo, U. N., Chuku, C. A. & Effiong, E. L. (2011). The dynamics of electricity demand and consumption in Nigeria: Application of the bounds testing approach. *Current Research Journal of Economic Theory, 3*(2), 43-52.

Emeana, G. A. (2005). *Metering theory and practice for commercial department*. Paper presented at the zonal conference of Power Holding Company of Nigeria (PHCN) Plc Marketing Executives. Benin City: Nigeria.

Estache, A., Antonio, F. R., Forster, V., Viven, F. A., Wodon, Q. & Quentin, F. G. (2010). Infrastructure reform and the poor learning from Latin America's experience. *American International Journal of Contemporary Research, 2*(3), 111-145).

Garvin, D. A. (1998). Competing the eight dimensions of quality. *Harvard Business Review,* November – December, 1998, 101-109.

Gnansounou, E. (2008). Boosting the electricity sector in West Africa: An integrative vision. *International Association for Energy Economics, 17*(2), 23-29.

Heilman, C. M., Bowman, D. & Wright, G. P. (2000). The revolution of brand preference and choice: Behaviours of consumers new to a market. *Journal of Marketing Research, 37*(5), 159-155.

Isola, W. A. (2007). Development in the Nigeria electricity sector. In *Nigeria's development in time perspective: past, present and future.* Ibadan: NES.

Jain, A. (2011). A prepaid meter using mobile telecommunication. *International Journal of Engineering, Science and Technology, 3*(3), 314-432.

Jakpar, S., Na, A. G. S., Johari, A. & Myint, K. T. (2012). Examining the product quality attributes that influences customer satisfaction most when price was discounted: A case study of Kuching Sarawak. *International Journal of Business and Social Sciences, 3*(23), 221-236.

Kazeem, O. (2013). *Power sector privatization and the challenges of powering in Nigeria.* Retrieved September, 2017 from http://www.workersalternative.com/national-issues/177-ka

Kotler, P. & Keller, K. L. (2006). *Marketing management 12e.* New Delhi, Prentice-Hall of India Private Limited.

Lee, H., Lee, Y, & Yoo, D. (2000).The determinants of perceived service quality and its relationship with satisfaction. *Journal of Services Marketing, 14*(3), 217-231.

Lee, J. & Lee, J. (2010). Quality vs preference: The impact of online product information on customers' purchase intention. *International Journal of Service Quality, 5*(8), 35-67.

Makoju, O. (2002). Policy options for the attainment of sustainable electricity supply in Nigeria. *Bullion, 26*(4), 21-25.

Miyogo, C. N., Nyanamba, S. O., & Nyangweso, G. N. (2013). An assessment of the effect of prepaid service transition in electricity bill payment on KP customers, a survey of Kenya Power, West Kenya Kisumu. *American International Journal of Contemporary Research, 3*(9), 88-97.

Moyo, B. (2012). Do power cuts affect productivity? A case study of Nigerian manufacturing firms. *International Business and Economic Research Journal (IBER), 11*(10), 1163-1174.

Neenan, B. (2010). *Paying upfront: A review of salt rivers project's M-Power prepaid program.* California, Electric Power Research Institute.

Ogujor, E. A. & Otasowie, P. (2010). Pre-paid meter: Impact on revenue generation in Nigeria. *International Journal of Academic Research, 2*(3), 54-57.

Olokoba, S. M., Ibrahim, I. & Abdulraheem-Mustapha, M. A. (2010). Noise pollution: A catalyst to climate change and human health catastrophe. *Nigerian Journal of Food, Health and Drug Law, 3*(1), 23-38.

Oseni, J. E. & George, E. O. (2012). The relationship between electricity power and unemployment rates in Nigeria. *Australian Journal of Business and Management Research, 2*(2), 10-19.

Parasurama, A., Zeithaml, V. A. & Berry, L. L. (1998). SERVQUAL: A multiple scale for measuring consumer perceptions of service quality. *Journal of Retailing*, *64*(1), 12-40.

Shaharudin, M. R., Mansor, S. W., Hassan, A. A., Omar, M. W. & Harun, E. H. (2011). The relationship between product quality and purchase intention: The case of Malaysia's national motorcycle/scooter manufacturer. *African Journal of Business Management*, *5*(20), 8163-8176.

Suchanek, P., Richter, J. & Kralova, M. (2014). Customer satisfaction, product quality and performance of companies. *Review of Economic Perspectives*, *14*(4), 329-344.

Sule, A. H. (2010). Major factors affecting electricity generation, transmission and distribution in Nigeria. *International Journal of Engineering and Mathematical Intelligence*, *1*(1&3), 57-164.

Tokede, W. & Okonniji, C. (2013). *Nigeria, second worst in electricity – World Bank Report.* Retrieved from http://www.mydailynewswatchng.com/nigeria-second-worst-in-electricitysupply/August,2017

Tsiotsou, R. (2006). The role of perceived product quality and overall satisfaction on purchase intentions. *International Journal of Consumer Studies*, *30*(2), 207-217.

Usman, A. (2013). Determinants of electricity consumer satisfaction in selected electricity distribution zones in Nigeria: Implication for regulatory activities. *Journal of Asian Business Strategy*, *3*(6), 103-124.

Uzoma, C. C. Nnaji, C. E. & Nnaji, M. (2012). The role of energy mix in sustainable development of Nigeria. *Continental Journal of Social Sciences*, *5*(1), 21-29.

Yee, C.J., San, N.C. & Khoon, C. H. (2011). Consumers' perceived quality, perceived value and perceived risk towards purchase decision on automobile. *American Journal of Economics and Business Administration*, *3*(1), 47-57.