Socio-economic Correlates of Perceived Environmental Quality of Market Users in Ile-Ife, Nigerian

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Abstract

This paper examined the relationship between socio-economic attributes of users and their perceived environmental quality in Ile-Ife markets, Nigeria. Through systematic random sampling, primary data were obtained from 455 traders in Odo-Ogbe, Olorunsogo, Oja-Ife, Bonfo, and Urban day markets. Mean analysis generated from users' rating of twenty (20) indicators that were of importance to their environmental quality were then used to ascertain if a relationship existed between their socio-economic characteristics and environmental quality. Average indices for each of the socio-economic characteristics were computed. The indicators were then polarized into two. These were indicators above the average indices computed for each of the attributes and those below them. Indicators that were most important in all the markets included availability of water, electricity availability and health care facilities. On the other hand, those that were not important comprised economic opportunities, absence of water pollution, and police service in the market. Therefore, the study recommended that government should provide the facilities and services, especially those that were scarcely supplied to the market users so as to enhance their environmental quality.

Keywords: *Market, Environmental quality, Perception, Ile-Ife*

1. Introduction

Human settlements are made up of different parts which work together as a system. One of the major parts of the system is the market (Omole, 2009). According to Business Dictionary (2014), market is an actual or nominal place where forces of demand and supply operate, and where buyers and sellers interact (directly or through intermediaries) to trade goods, services, or contracts or instruments, for money or barter. It is also seen as an arrangement whereby buyers and sellers come in contact with each other directly or indirectly to buy or sell goods (Kalyan, 2010). Generally, market plays prominent roles in the economic, social, cultural and religious development of settlements as well as political life of the people no matter their location, sizes and categories (Balogun, 2011; Fawole, 2012; and Owoeye, 2014). Indeed, market, especially in Urban Centres acts as the nerve centre of economic activities of where it is located. Therefore, market is a place where there are concentration of people and economic activities.

The influx of people coupled with agglomeration of economic activities in market has resulted in over-stressed of environmental services and myriads of physical problems in the urban centres in which they are located. These problems have been said to have manifested in the spread of communicable diseases and increase in development of environmental allergies and degradation (Uzuegbunam, 2012; and Abejegah, Abah, Awunor, Duru, Eluromma, Aigbiremolen and Okoh, 2013). Studies have confirmed that poor environmental conditions of market in Nigeria abound. These, among others, include inadequate toilet facilities, poor drainage system and the general poor environmental sanitation behaviour of market users (Omole, 2009; Balogun, 2011; and Fawole, 2012). This unequivocally suggests that the conditions of markets in Nigeria are of poor environmental quality and less conducive to human healthy living.

Several studies on environmental issues have shown that there is a direct relationship between socio-economic and demographic attributes and people's perception (Zelezny, Chua, and Aldrich, 2000; Sirgy and Cornwel, 2002; and United Nations, 2002). These broad characteristics, among others, include variables such as gender, age, education and income status. For instance, Zelenzy *et al.* (2000) in their work pointed out that women are more likely to engage in good environmental behaviour due to their gender socialization which results in greater sensitivity towards environmental issues. This implies that there is the tendency that women will perceive different aspect of the environment separately

from men. Hence, there is a connection between socio-economic and demographic attributes of people and their perception of environmental quality.

From the foregoing, it is important to study the environmental quality of market, a place where users spend reasonable amount of not less than eight hours of their day (Fawole, 2012), reflecting on the ways in which it has impacted on the daily life practices of the people using it. Information on the environmental quality of market users, especially in a developing country like Nigeria, is scarce and very important because:

i)   it will provide insight into the present environmental conditions of the users.

ii)   it will be valuable as a guide to inform policy makers in formulating sound and well defined policy problems and recommendations which will be implemented with a clear vision to enhance the markets.

iii)   the information will also help planners and policy makers to resolve the implications that socio-economic characteristics have on the environmental quality of the users.

Therefore, it is against this background that the study examines the relationship between socio-economic attributes of users and their perceived environmental quality in Ile-Ife markets, Nigeria.

2. Literature Review

Over the years, there has been a growing concern in environmental quality both in the developed and developing nations of the world (Schleich, 1998; Afon, 1998; Potschina and Haines-Young, 2003; Brown, 2003; Nichol and Wong, 2005). As opined by Nichol and Wong (2005), environmental quality is an abstract concept resulting from both human and natural factors operating at different spatial scales. According to Kesalkheh and Dadashpoor (2012), the concept of environmental quality overlaps, and often used as synonyms with concepts of livability, living quality, living environment, quality of place, residential-perception and satisfaction, the evaluation of the residential and living environment, quality of life and sustainability. Environmental quality is the resultant of the quality of composing parts of a given region but more than the sum of parts. It is the perception of a location as a whole. The composing parts (nature, open space, infrastructure, built environment, physical environment amenities and natural resources) each have their own characteristics and partial quality (Kamp, Leidelmeijer, Marsman and Hollander, 2003).

Different scholars have defined environmental quality differently. For instance, Foo (2000) defined environmental quality as individual's overall satisfaction with the life they have. It is also defined in terms of what one has lost, or lacked, rather than what one has (Bowling and Windsor, 2001). Costanza (2008) defined

environmental quality as the extent to which objective human needs are fulfilled in relation to personal or group perceptions and the feelings of people and their experiences within the space where they live. Environmental quality has been defined in macro (societal, objective) and micro (individual, subjective) terms (Rosenberg, 1992; Bowling, 1995a; 1995b; 1996; Bowling and Windsor, 2001). The former includes income, employment, housing, education, other living and environmental circumstances. The latter includes perceptions of overall quality of life, individual's experiences and values, and has included related, proxy indicators such as well-being, happiness and life satisfaction.

Two approaches are traditionally conceptualized in measuring the environmental quality. These are objective (social) and subjective indicators. 'Objective' or 'social indicators' tends to measure environmental quality in terms of aggregate measures of social condition factors external to the individual. It is societal measures that reflect people's objective circumstances in a given cultural or geographic unit. The hallmark of objective indicators is that they are based on objective, quantitative statistics rather than on individuals' subjective perceptions of their social environment. These indicators are associated with social, economic or environmental conditions.

In contrast, subjective indicators represent the individual's evaluation of objective environmental conditions, which are derived from surveys of people's perceptions, satisfaction or well-being with urban living. In other words, it tends to describe the ways in which people perceive and evaluate conditions around them (Campbell, Converse and Rodgers, 1976). The subjective approach aims to reflect the perception of the common residents or citizens or occupants or certain users of an open space on environmental quality, most of whom have no channel to attain the understanding of complex mathematical model of evaluation (Schacman, Liu and Wang, 2005; Noll, 2005; Heuck and Schulz, 2012). In most cases, Likert scale is usually employed as a main technique to measure subjective quality of environment. According to Das (2008), measurement of environmental quality from subjective approach can also be measured based on the cognitive and emotional reaction placed by individuals to his/her life as well as to particular domains of environmental quality. One of the strength of the subjective approach is that it facilitates examination of both overall environmental quality and the various domains that encompass it, such as housing, neighbourhood, health, social connectedness, environment, work, the family and socio-economic attributes of people, among others (Gabriel and Bowling, 2004; UNDP, 2004; Venhooven, 2004).

Numerous empirical studies employed different domains to measure urban environmental quality. For instance, satisfaction from family life, education, wealth, health was evaluated by Foo (2000) and this is more

related with demographic and socio-economic characteristics of individuals. McCrea, Shyy and Stimson (2006) identified domains related to satisfaction from the environment such as neighbourhood satisfaction, local area satisfaction, regional satisfaction and regional environmental quality to evaluate satisfaction. Some of the indicators used in the work of Das (2008) to measure individuals' life satisfaction were satisfaction from condition of housing, satisfaction from cost of living, satisfaction from condition of traffic and satisfaction from level of the environment. Similarly, Tesfazghi (2009) examined domains such as housing, built environment, neighbourhood safety, neighbourhood sanitation, quality of public services, access to public service, social connectedness and family income to evaluate and analyse the spatial variation of urban environmental quality. Pearl (2011) in his study of environmental quality also identified domains, such as safety at streets, recreational centre accessibility, level of education, housing quality and parking space.

Arising from the above, how market users with different socio-economic attributes perceive the above listed indicators is vital as they could be used as a mechanism in proffering solution to the varying environmental problems of the users.

3. The study Area: An overview

The study area is Ile-Ife and it is an important town in south-western part of Nigeria (See Figure 1). Ile-Ife is located at Latitude 7^0 15'N, 7^0 31'N and Longitude 4^0 43'E, 4^0 45'E. Ile-Ife, as a major town in Osun State, is the administrative headquarters of both Ife Central and Ife East Local Government Areas (LGAs) of Osun State and also the seat of a Federal University, a Private University and a Private Polytechnic. The town has experienced an incremental growth in its population. Ile-Ife with 92,862 people in 1963 (Population Censure Figure, 1963) and 178, 409 in 1991 (Population Censure Figure, 1991) grew to over 480,000 people in 2006 (Population Censure Figure, 2006). The population growth results from the influx of people to the city for employment and other related activities. A large percentage of the population engage in farming as their major occupation while few engage in tertiary activities like trading, teaching, blacksmithing, saw-milling, among others. This increase in population growth has equally brought about increase in demand for goods and services by Ife residents. In order to meet the increasing demand, several markets were established ranging from traditional to modern. Five of these markets are selected in the study area. These are: Odo-Ogbe, Olorunsogo, Oja-Ife, Bonfo and Urban day markets. A succinct description of these markets is given below:

a) *Odo-Ogbe Market:* This market is the largest and most populous in Ile-Ife. It is normally called 'Oja-tuntun' (new market). Odo-Ogbe market could be regarded as daily and periodic. This is because, while the market runs on daily basis, people from neighbouring towns like Ibadan, Ilesa Osu and Ede also come there to trade fortnightly. There are three categories of shops in this market. These are: lockable open and temporary shops/stalls. Goods sold in the market include; textile, shoes, bags, kitchen utensils, tubers, grains, plates and plastics, provisions, jewelries, cosmetics, livestock, among others. Odo-Ogbe market initially was designed for few people but due to increase in population, it is now faced with high patronage level. A cursory glance at the physical environment of the market reveals that it is facing a lot of physical and environmental problems such as congestion, drains blockage, on-street trading and inadequate facilities, among others issues.

b) *Olorunsogo Market:* The market's name "Olorunsogo" was named after the area in which it is situated. The establishment of this market can be traced to the first Ife-Modakeke crisis in 1977 when the people of Modakeke were denied access to the existing market at that time. This market possesses the attribute of modern market based on the arrangement of shops (lay-out plans) and design of the market place. Categories of shops in this market are of three types: lockable, open and temporary shops/stalls. Goods sold in this market include: textile, bags, shoes, kitchen utensils, tubers, grains, plates and plastics, provisions, jewelries, cosmetics, livestock and different types of food stuff, among others. Observation during reconnaissance survey shows that this market shares the same features and physical problems with other markets under study such as lack of drainage, inadequate parking space, poor road condition dilapidated shops, among others.

c) *Oja-Ife:* This is the oldest traditional market in Ile-Ife. The name 'Oja-Ife' simply means Ife people's market**.** In other traditional Yoruba towns, this type of market is popularly called 'king's market' because of its closeness to the king's palace. Goods sold in this market include tubers, grains, textile, condiments, shoes and bags, plates and plastics, provisions, goats and livestock among others. A quick glance at the physical environment of the market reveals that the site area is inadequate with no scope for expansion. This causes extreme congestion and encroachment of marketing activities on the adjacent residential and the abutting roads. The structural condition of shops is poor based on the materials and methods of construction of walls and roof as well as their years of existence. Structural condition of stalls in Oja-Ife market could be regarded as poor. The market stalls are temporary sheds constructed of timber and rusting, galvanized iron sheets on crumbling bamboo pole rafters. More so, basic facilities are missing in the market.

d) *Bonfo/Iloro Market:* This market is located in the core area of Ile-Ife. The market is so named as it is situated "Iloro". It portrays features of traditional market. Goods like tubers, grains, textile, condiments, shoes and bags, plates and plastics, provisions, goats, livestock, among others are traded in the market. The physical environment of the market shows that facilities and basic amenities which could help in improving the quality of the environment are lacking.

e) **Urban Day Market:** The market is located in an area popularly known as Mayfair Roundabout in Ile-Ife. Urban Day market was named after a school close to the area. Information obtained from one of the old sellers revealed that the market came into existence in 1995. The market portrays the features of daily market as marketing activities are carried out from 8:00am to 8:00pm everyday of the week. Goods sold in the market are mainly farm produce like yam, banana, plantain, corns, food stuff, among others.
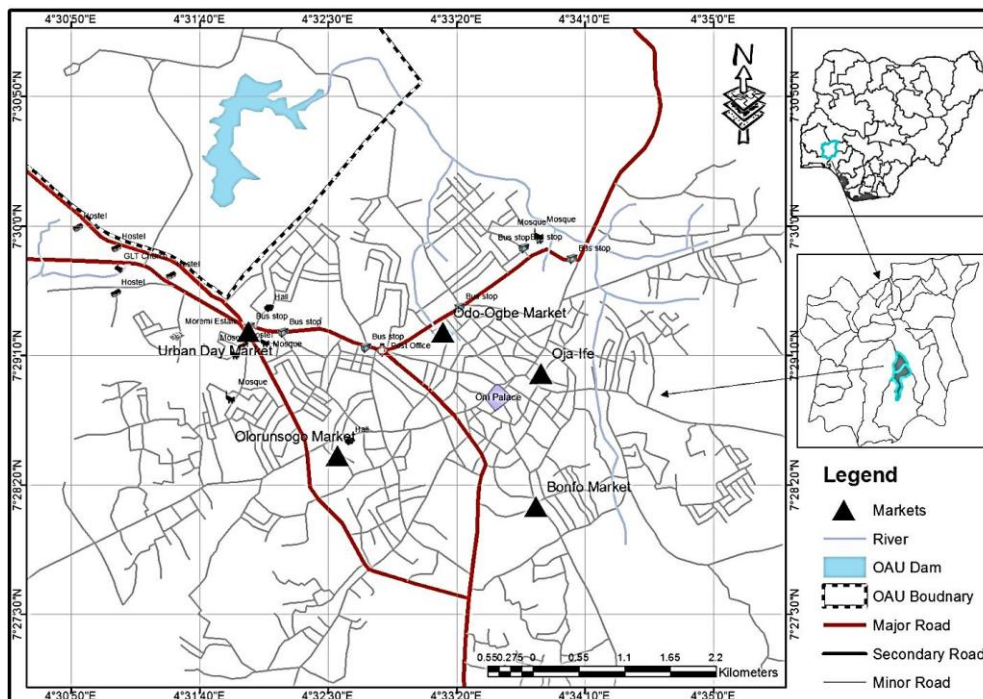

Figure 1.1: Map of Ile-Ife showing the selected markets
(Source: Cooperative Information Network (COPINE, OAU), 2017)

4. Research Methodology

a) Data collection

The sampling frame for the study was all markets in Ile-Ife. A total of fourteen (14) major and functioning markets were identified within the urban area of Ile-Ife. Multi-stage sampling technique was employed in the study. The first stage involved the classification of the identified markets into two: the modern and the traditional. Based on the characteristics of the markets, four (4) were classified as modern while the remaining ten (10) as traditional.

In the second stage, purposive sampling technique was adopted in selecting the markets. This was based on their size and importance. Therefore, Odo-Ogbe and Olorunsogo markets were selected among the modern; while Oja-Ife, Bonfo and Urban day markets were selected among the traditional, making a total of five (5) markets.

The third stage involved stratification of the selected markets into different shop categories. Reconnaissance survey revealed that there were three categories of shops in the study area (i.e. Lockable Shops, Open Shed Shops/Stalls and Temporary Shops/Stalls including the use of umbrellas and metals/kiosks). There were 1030, 2330, 503, 423 and 265 shops/stalls respectively of the different categories in Odo-Ogbe, Olorunsogo, Oja-Ife, Bonfo, and Urban day markets.

The fourth and last stage was the selection of market users (sellers) for questionnaire administration. Questionnaire was administered on sellers in every tenth (10th) shop (10%) using systematic random sampling. One seller was sampled from each shop/stall selected for the survey. Thus, 103 sellers were surveyed in Odo-Ogbe market, 233, 50, 42 and 27 in Olorunsogo, Oja-Ife, Bonfo, and Urban day markets respectively. This implied that questionnaire was administered on 455 sellers. Details of all these are presented in Table 1.

Table 1: Classification, Number of Shops/Stalls and Sellers sampled in the selected Markets in Ile-Ife

Categories	Markets	Selected markets	Categories of Shops/Stalls sampled						Total Number of shops/stalls in each selected market	Number of shops/stalls to be sampled in each market
			LS	10% sample of shops/stalls	OS	10% sample of shops/stalls	TS	10% sample of shops/stalls		
Modern	Odo-Ogbe,	Odo-Ogbe	150	15	270	27	610	61	1030	103
	Apollo									
	Olorunsogo	Olorunsogo	2060	206	120	12	150	15	2330	233
	OAU									
Traditional	Oja-Ife	Oja-Ife	340	34	10	1	153	15	503	50
	Olubuse									
	Ilode									
	Ita-akogun									
	Bonfo/Iloro	Bonfo/Iloro	273	27	-	-	150	15	423	42
	Ondo Road									
	Arubidi									
	Better life									
	Urban day	Urban day	200	20	-	-	65	7	265	27
	Akarabata									
Total									**4551**	**455**

Note: LS- Lockable shops, OS- Open shop/stalls, and TS- Temporary shops/stalls

b) Data need

Data obtained included the sellers' rating of the environmental quality indicators and their socio-economic attributes such as age, gender, income, religion, marital status, educational level and the length of stay in the study area. Data were analysed using Descriptive statistics which included frequency counts, percentages and cross tabulation.

Environmental quality indicators were rated by the users using the 5-point Likert scale of Very Important (VI), Important (I), Just Important (JI), Not Important (NI) and Not at All Important (NAI). Users' responses to the indicators were measured in this study through a personally devised index termed Environmental Quality Indicator Index (EQII).

To arrive at EQII, the following steps were followed:

1) A weight value of 5,4,3,2 and 1 were attached respectively to each rating of VI, I, JI, NI and NAI.
2) Summation of weight value (SWV) was calculated. This is the addition of the product of the value attached to a rating and respective number of users to the rating.
3) SWV was divided by the number of users

This SWV is expressed mathematically as

$$SWV = \sum_{i=1}^{5} X_i Y_i \quad \dots\dots\dots\dots\dots\dots\dots\dots \text{(i)}$$

Where:
SWV = summation of weight value,
X_i = number of users to rating i;
Y_i = the weight assigned a value (i = 1, 2, 3, 4, 5).

The **SWV** divided by the number of users gives the **EQII**. Thus:

$$EQII = \frac{SWV}{\sum_{i=1}^{5} i = X_i} \quad \dots\dots\dots\dots\dots\dots\dots \text{(ii)}$$

The average level of importance attached to environmental quality indicators in the study area was arrived at by the ratio of the sum of the indices to all indicators and total number of indicators rated. Thus:

$$\overline{EQII} = \frac{\sum EQII_{i-j}}{n} \quad \dots\dots\dots\dots\dots\dots\dots \text{(iii)}$$

Where $\overline{EQII}$ = average index for the study area
n= number of the identified indicators

The average EQII in each market is denoted as:

$\overline{EQII}_{Odo-Ogbe}$= average index for Odo-Ogbe market

$\overline{EQII}_{Olorunsogo}$= average index for Olorunsogo market

$\overline{EQII}_{Oja Ife}$ = average index for Oja Ife (Ife market)

$\overline{EQII}_{Bonfo/Iloro}$= average index for Bonfo market

$\overline{EQII}_{Urban Day}$= average index for Urban Day market

$\overline{EQII}_{GG}$= average index for Gender Group

$\overline{EQII}_{AG}$= average index for Age Group

$\overline{EQII}_{IG}$= average index for Income Group

$\overline{EQII}_{ES}$= average index for Educational Status

$\overline{EQII}_{LS}$= average index for Length of Stay

5. Research Findings and Discussion

The research findings are discussed under the various headings below. Unless otherwise stated, the tables are the products of the survey carried out by the authors in year 2016.

5.1 Socio-economic Characteristics of Market Users in Ile-Ife

The summary presented in Table 2 is the socio-economic characteristics of the market users in the study area. Five socio-economic characteristics (gender, age, income, educational status and length of stay) were considered significant. This was based on the earlier studies that these attributes are related with environmental quality of people (Kane, Kane, Bershadsky, Degenholtz, Kling, Totten, and Jung, 2005; Kahneman and Deaton, 2010; Aceleanu, 2012).

The study established that majority of the market users were females. Of the 455 users sampled, 74.5% were females while their male counterparts were 25.5%. It could be inferred from these findings that selling activity in the markets was more of females than the males. This study is in line with the submission of Adalemo (1970) that market is a business institution that

gives a large measure of economic opportunity and social security to women who form the bulk of the sellers. Spatial analysis of gender of sellers across the five markets revealed that Urban Day market had the highest proportion of males with 29.6%, as against 25.2%, 25.8%, 24.0% and 23.8% respectively in Odo Ogbe, Olorunsogo, Oja Ife and Bonfo. Conversely, Bonfo market recorded the highest population (76.2%) of female sellers when compared with other markets in the study area.

Findings further established that the youths and the young adults in the study area respectively accounted for 10.1% and 39.8% of the market users sampled. In essence, 49.9% of the respondents were in the age bracket of between 21 and 45 years. By implication, majority of the people that engaged in one form of trade or the other in the study area were within the active/working population; those who were energetic and full of ambition. They had attained the age of maturity where they could actually decide their own professions or directions in life. The finding is in conformity with other studies such as Sada and McNulity (1978); and Omole (2009) who put forward that majority of sellers are within active population group. The adult and the aged respectively represented 34.9% and 15.2%.

Table 2: Socio-economic Attributes of Market Users

| Gender | Markets | | | | | |
	Odo Ogbe	Olorunsogo	Oja Ife	Bonfo	Urban Day	Ile-Ife
Male	26(25.2%)	60(25.8%)	12(24.0%)	10(23.8%)	8(29.6%)	**116(25.5%)**
Female	77(74.8%)	173(74.2%)	38(76.0%)	32(76.2%)	19(70.4%)	**339(74.5%)**
Total	**103(100.0)**	**233(100.0)**	**50(100.0)**	**42(100.0)**	**27(100.0)**	**455(100.0)**
Age						
21-30 yrs (Youth)	12(11.7%)	22(9.4%)	6(12.0%)	4(9.5%)	2(7.4%)	**46(10.1%)**
31-45 yrs (Young Adult)	41(39.8%)	93(39.9%)	21(42.0%)	16(38.1%)	10(37.0%)	**181(39.8%)**
46-60 yrs (Adult)	35(34.0%)	83(35.6%)	16(32.0%)	16(38.1%)	9(33.3%)	**159(34.9%)**
Above 60yrs (Aged)	15(14.6%)	35(15.0%)	7(14.0%)	6(14.3%)	6(22.2%)	**69(15.2%)**
Total	**103(100.0)**	**233(100.0)**	**50(100.0)**	**42(100.0)**	**27(100.0)**	**455(100.0)**
Average daily Income						
1000-3000 (low)	88(85.4%)	198(85.0%)	43(86.0%)	36(85.7%)	23(85.2%)	388(85.3%)
3001-5000 (middle)	10(9.7%)	24(10.3%)	4(8.0%)	4(9.5%)	4(14.8%)	46(10.1%)
Above 5000 (high)	5(4.9%)	11(4.7%)	3(6.0%)	2(4.8%)	0(0.0%)	21(4.6%)
Total	**103(100.0)**	**233(100.0)**	**50(100.0)**	**42(100.0)**	**27(100.0)**	**455(100.0)**
Educational Status						
No Formal Education	11(10.7%)	23(9.9%)	5(10.0%)	4(9.5%)	3(11.1%)	46(10.1%)
Primary School	25(24.3%)	59(25.3%)	13(26%)	10(23.8%)	7(25.9%)	114(25.1%)
Secondary School	57(55.3%)	128(54.9%)	27(54.0%)	24(57.1%)	15(55.6%)	251(55.2%)
Tertiary	10(9.7%)	23(9.9%)	5(10.0%)	4(9.5%)	2(7.4%)	44(9.7%)
Total	**103(100.0)**	**233(100.0)**	**50(100.0)**	**42(100.0)**	**27(100.0)**	**455(100.0)**
Length of stay (in hours)						
6-7 hours	32(31.1%)	70(30.0%)	15(30.0%)	13(31.0%)	8(29.6%)	**138(30.3%)**
8-9 hours	35(34.0%)	82(35.2%)	17(34.0%)	15(35.7%)	11(40.7%)	**160(35.2%)**
10-11 hours	36(35.0%)	79(33.9%)	18(36.0%)	14(33.3%)	8(29.6%)	**155(34.1%)**
12 hours	0(0.0%)	2(0.9%)	0(0.0%)	0(0.0%)	0(0.0%)	**2(0.4%)**
Total	**103(100.0)**	**233(100.0)**	**50(100.0)**	**42(100.0)**	**27(100.0)**	**455(100.0)**

Considering daily income of the respondents, it was observed that 85.3% of the sellers were low income earners (that is, earning between USD$2.9 and USD$8.6 on a daily basis) while a proportion of 10.1% were realizing above ₦3001- ₦5000 (USD$8.6-USD$14.3). Only 4.6% of the sellers were earning above ₦5000.

Findings established that 55.2% of the sellers had secondary school education in the study area. It was also observed that 25.1% and 9.7% of the sellers had primary and tertiary education qualifications respectively. A proportion of 10.1% of the sellers did not have any qualification. This proportion was considered to be high in

Urban Day market with 11.1%. This category of sellers was 10.7%, 9.9%, 10.0% and 9.5% in Odo Ogbe, Olorunsogo, Oja Ife and Bonfo markets respectively. Also, sellers that had tertiary education were concentrated most in Oja Ife with 10.0% when compared with other markets which respectively accounted for 9.7%, 9.9%, 9.5% and 7.4% in Odo Ogbe, Olorunsogo, Bonfo and Urban Day markets.

The length of stay of the sellers is discussed based on the number of hours spent in the markets. People who spend a longer period of their day in the market are likely to have detailed experience of the environment than those who spend lesser time. Findings revealed that 35.2% of the sellers spent between 8 and 9 hours daily in the selected markets. Next to this group were those that spent 10 to11 hours. They represented 34.1% of the sellers. While a proportion of 30.3% of the sellers used between 6 and 7 hours, only 0.4% claimed they spent above 12 hours daily in the markets.

5.2 Socio-economic characteristics and environmental quality indicators: the link

In order to establish the relationship between users' socio-economic characteristics and environmental quality indicators, twenty (20) environmental quality indicators were identified. The indicators were polarized into two. These were indicators above the average index calculated for each characteristic and those above it. Indicators with indices above the average index for the characteristics are of significance in this study. These indicators were considered to be of higher importance. Those that were above the average index of every characteristic were identified. This was to arrive at the influence of socio-economic characteristics as drivers of environmental quality indicators. Indicators common to every socio-economic characteristic were regarded as the most important in each market. These are the indicators that policy makers should focus by ensuring that facilities and basic amenities are provided to enhance the environmental quality of the market users.

Findings of the above process are presented in Table3.

Table 3: The level of Importance attached to EQI as correlated by market users' socio-economic characteristics in Ile-Ife

EQI	Gender Group		Age Group				Income Group			Educational Status				Length of Stay (Hours)			
	Male	Female	Youth	Young Adult	Adult	Aged	Low	Middle	High	No formal	Primary	Secondary	Tertiary	6-7	8-9	10-11	12
1	3.86	4.08	4.39	3.92	4.05	4.03	4.03	4.21	3.61	4.06	3.95	4.09	3.81	3.93	4.2	3.92	3.91
2	3.08	3.2	3.1	3.24	3.12	3.11	3.14	3.26	3.38	3.32	2.93	3.21	3.38	3.16	3.27	3.07	3.16
3	4.03	4	4.21	4.03	3.93	3.95	3.96	4.3	4.19	4.06	3.74	4.1	4.06	4.17	4.01	3.85	4.16
4	4.45	4.53	4.5	4.53	4.52	4.44	4.52	4.5	4.42	4.6	4.46	4.5	4.63	4.37	4.64	4.49	4.5
5	4.31	4.13	4.06	4.07	4.27	4.33	4.21	4.15	3.76	3.91	4.55	4.11	3.93	4.08	4.08	4.34	4.58
6	4.12	3.93	3.91	3.97	3.9	4.26	3.96	4.26	3.8	3.63	4.02	4.03	4	4.09	3.85	4.03	3.91
7	3.68	3.91	3.84	3.9	3.85	3.73	3.84	3.89	4.04	4.13	3.62	3.87	4.06	3.72	4.02	3.77	3.91
8	3.23	3.25	3.52	3.08	3.32	3.33	3.27	3.32	2.61	3.06	3.47	3.24	2.88	3.15	3.28	3.3	3.08
9	1.75	1.82	2.06	1.7	1.81	1.86	1.81	1.89	1.42	1.76	1.87	1.8	1.63	1.71	1.88	1.81	1.58
10	1.98	1.91	1.82	1.96	1.94	1.89	1.94	1.86	1.95	1.89	1.93	1.93	1.95	1.97	1.87	1.93	2.33
11	3.84	3.68	3.6	3.71	3.73	3.81	3.72	3.73	3.61	3.63	3.83	3.69	3.72	3.69	3.65	3.82	3.66
12	4.63	4.69	4.69	4.67	4.67	4.68	4.68	4.69	4.57	4.69	4.63	4.69	4.68	4.64	4.74	4.64	4.66
13	3.38	3.54	3.76	3.38	3.6	3.43	3.52	3.45	3.19	3.65	3.6	3.48	3.22	3.36	3.6	3.51	3.58
14	3.83	4.15	4.43	4.01	4.04	4.05	4.06	4.41	3.52	4.1	3.79	4.2	3.97	3.94	4.37	3.83	4.41
15	3.26	3.44	3.6	3.38	3.42	3.24	3.4	3.23	3.61	3.71	3.39	3.35	3.31	3.35	3.45	3.37	3.41
16	3.26	3.05	2.86	3.09	3.14	3.18	3.11	2.97	3.14	3	3.33	3.03	3.02	3.13	2.91	3.25	3.41
17	3.74	3.61	3.39	3.66	3.71	3.62	3.66	3.41	3.9	3.69	3.78	3.58	3.56	3.7	3.5	3.73	3.91
18	3.89	3.57	3.43	3.66	3.66	3.78	3.66	3.67	3.57	3.43	3.88	3.6	3.63	3.72	3.48	3.82	3.16
19	3.61	3.64	3.69	3.57	3.61	3.79	3.62	3.95	3.09	3.45	3.57	3.7	3.59	3.6	3.74	3.57	3.33
20	3.86	3.86	4.17	3.76	3.85	3.95	3.85	4.06	3.66	3.71	3.92	3.9	3.61	3.93	3.82	3.85	3.83
Mean (EQII)	3.59	3.6	3.65	3.56	3.61	3.62	3.6	3.66	3.45	3.57	3.61	3.61	3.53	3.57	3.62	3.6	3.62
Group Mean	EQII$_{IG}$= 3.60		EQII$_{AG}$= 3.61				EQII$_{IG}$ = 3.57			EQII$_{ES}$ = 3.58				EQII$_{LS}$ = 3.60			

1=Availability of water	8=Absence of noise pollution	15=Safety
2=Economic opportunities	9=Absence of air pollution	16=Police service in the market
3=Electricity availability	10= Absence of water pollution	17=The support gotten from one another
4=Health care facilities	11=Market space adequacy	18=Access to waste disposal facilities
5=Clean, healthy environment	12=Dilapidated stalls/shops	19=Access to public toilets
6=Good condition of roads	13=Access to transport network	20=Availability of fire service
7=Availability of open spaces	14=Quality and reliability of services and facilities provided by government	

It was established that the average indices of the gender, age group, income group, educational status and length of stay were respectively 3.60, 3.61, 3.57, 3.58 and 3.60.

Indicators with indices higher than 3.60 that were common to the two gender group were twelve in number. These included: availability of water, electricity

availability, health care facilities, clean, healthy environment and good condition of roads. These were with serial numbers 1, 3, 4, 5 and 6. Other indicators were with serial numbers 7, 11, 12, 17, 19 and 20 (See Table 3). In a similar vein, nine indicators with indices above the average index (3.61) that were common to the four age groups were identified. These, among others, were availability of water, electricity availability, health care facilities, clean, healthy environment and availability of open spaces. Their respective serial numbers were 1, 3, 4, 5, 6 and 7. Others were 12, 14 and 20 (See Table 3). While there were ten indicators common among the three income groups of the users, nine indicators each had their average indices to be above the average indices of educational status and length of stay categories respectively. Findings further showed that eight indicators were common to every socio-economic characteristic. These indicators were above the average indices of the socio-economic characteristics. These indicators were with serial numbers 1, 3, 4, 5, 6, 7, 12 and 20.

Indicators with average index lower than every socio-economic characteristic were also considered. For instance, it was found that the indicators common to the gender groups but with indices less than the average of this characteristic were eight. These were indicators with serial numbers 2, 8, 9, 10, 13, 15, 16 and 18. Also, indicators common to the three groups of income but with indices lower than the average value of the characteristic were ten. It was further established that indicators below the indices common to every socio-economic characteristic in the study area were six. They were with serial numbers 2, 8, 9, 10, 15 and 16. This implied that these indicators were less problematic to the users as they were available to enhance their environmental quality.

Conclusion and Recommendations

It has been established in this study that eight of the twenty indicators were strongly related with the users' socio-economic characteristics. The indicators had physical and health dimensions. These included availability of water, electricity availability, health care facility, clean, healthy environment and good condition of roads. Others were availability of open spaces, dilapidated stalls/shops and availability of fire service. For the environmental quality of the market users to be enhanced, these indicators must be adequately provided. This is because the indicators were important to the users in the different socio-economic groups.

These findings bring to focus one fact: these indicators were the main issues that the market users were confronted with in the study area. For example, the problem of health care facilities as an important indicator was premised on the fact that standard health care facility was scarcely provided in the markets. It is pertinent to note that environmental quality, especially in markets will continue as a major concern except intervention of stakeholders including policy makers are provided. Therefore, government must intensify efforts in managing the markets facilities through replacement or rehabilitation of the dilapidated ones.

The findings further established that other problems raised by the market users were a direct manifestation of government abandonment of the markets. Hence, an intervention is obligatory by policy makers in the provision of facilities and services that were lacking.

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