Assessment of Locational Characteristics of Markets along the Highway in the South-south, Nigeria

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Abstract

The study analysed the locational characteristics of markets on the highway in the South-south geopolitical zone of Nigeria. Thirty four markets along the East-West road were purposively selected for the study and three hundred and forty four copies of questionnaire were used for the data collection. Observations and interview were done to have the good understanding of each market. Descriptive and inferential statistics were used for data analyses. Findings showed that females were higher than males in the study area among which youth dominated (73.6%). Majority (60.5%) of the respondents lived maximum of 10km distance from their respective market while fewer people lived above 20km to their respective market. More than 75% of the respondents earned less than 100,000.00 naira as their average annual income. Findings showed that 50% of the markets had fair access to reach the market and more than 75% of the market had fair site condition while the parking facility of majority (79.4%) of the markets was poor. The presence of toilets and water supply were poor in these markets (94.1%). The study concluded that majority of markets along the highway of South-south region are not in good conditions and it is recommended that the environmental health of the markets should be brought to a better one by making provisions for the poorly and fairly found facilities.

Keywords: Locational, Markets, Highway, South-south, Environmental health

Introduction

The common place location of markets on highways tagged "highway supermarkets" has undermined both smooth operation and efficient transportation of people, goods and services on Nigerian roads, not to talk of the inherent dangers associated with this practice if there is a vehicular accident. These markets are operated too close to, and in many instances right in the heart of highways. Generally, market serves as an institution for the exchange of goods and services; a place for actualizing economic desire (Callon 2003). According to Muli (2007), market is an arrangement that allows buyers and sellers to exchange goods and where people meet regularly in order to acquire, and or dispose-off, locally produced goods, imported goods and services. Markets could be categorized as traditional or modern, based on factors such as goods sold, services provided, and location, period of operation, physical settings among others

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(Cooper, 2008). Because different markets hold their "market days" on different days of the week, there is hardly a day of the week that is free of market people milling and clogging the highways thereby impeding the smooth flow of traffic. This sometimes leads to disasters resulting in physical, social, economic, emotional and health hazards.

Similarly, markets have been classified according to their temporal specialization. This gives a particular market its unique characteristics. Thus, markets are divided into: daily, periodic and special markets (Bromley, 1975).According to him, daily markets form part of major market centres. Daily markets have a large volume of trade once or twice a week and share some characteristics of periodic markets. Periodic markets are held regularly on one or more fixed days each week or month in smaller market centres. Special markets are often held at annual fairs and may be held from one day to one week to three months. Cooper (2008) observed that in any settlement, the most popular traditional market is the king's market, which is adjacent to the palace. This is obvious in the city structure of Nigeria's traditional urban areas. The king's market usually predates every other ones. However, it is not necessarily the largest traditional market as things are changing from the traditional to the modern market (Muli, 2007). This view according to Cooper, (2008) is evident in the metropolitan areas where there are many markets established through urban planning to reduce congestion. He further opined that women are the predominant traders there, as trading is a good profession for women because it is so flexible. Several studies such as Ekpenyong and Sibiri (2011), Priyono (2013) and Nduka and Duru (2014) have identified elements that are boosting the preponderance of these unplanned ventures, thereby increasing disaster risks, to include increase in number of vehicular movements and breakdowns; scary tales of highway robberies and kidnapping; wanton destruction facilitated by poor road maintenance; un-expandable road network as a result of the topography of the South-south region; people absconding from their regular jobs of fishing and farming for trading as pollution, contamination and acid rain make survival on main occupation difficult; vanishing of limited spaces, thereby creating over-crowdedness; error in judgment as rule of thumb becomes the planning guide as experienced in places where facts and figures are non-existent, invalid or inadequate; rail and air transportation are non-existent hence road transportation is inevitable; violation, impatience, disregard and non-observance of the rule of law leading to traffic logjams, gridlocks and substantial loss of resources; and lack of enforcement of the guiding rules, where they exist, through compromise or outright negligence.

Unfortunately, these activities fuel and encourage the practice of highway super-marketing to keep growing in leaps and bounds thereby constituting a nuisance to free flow of transportation system and vesting untold hardship on road users but most importantly constituting a catastrophe-in-waiting while the Western World is consolidating on the benefits of Intelligent Transportation System (ITS), (The Nation Newspaper, July 19, 2018), Nigeria is wallowing in the challenges posed by markets that are located closely to and sometimes on roads and highways, in spite of the myriads of disasters inherent in such locational patterns.

A drive through any major highway in South-south Nigeria highlights this phenomenon of road/highway trading that constitute an eyesore and nuisance to societal wellbeing of road users and the adjoining neighborhoods/communities in which these activities occur (Bogoro, 2016). Environmental pollution contributes to endemic diseases, while fire and traffic accidents, which are resultants of traffic congestion, also contribute to economic and material losses, when they

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occur, at these markets. The unhygienic conditions and unwarranted accidents resulting from these locational patterns of periodic highway markets are preventable when good hygiene practices and effective land use planning are adhered to respectively. Unfortunately, the reverse is the case in Nigeria as markets are not kept clean, and thus it serves as a place where pollutants proliferate mostly because of poor environmental hygiene. There are many studies on markets in the South-south region of Nigeria, but none has specifically addressed the location of these markets along major roads and highways, the inherent associated dangers and the need to discourage this practice by proffering practical and implementable solutions to this problem. Thus, the present study examined the locational characteristics of markets along the highway in the South-south region of Nigeria.

Materials and Methods

The study area lies within the South-south region of Nigeria. The South-south region comprises the area covered by the natural delta of the Niger River and the areas to the East and West, which also produce oil. The region is located between latitudes $4^010'$N and $7^035'$N and longitude $5^030'$E and $9^025'$E (Figure 1). The zone is approximately 112,110sq km and consists of 6 States namely; Bayelsa, Rivers, AkwaIbom, Cross River, Edo and Delta States (BRACED).
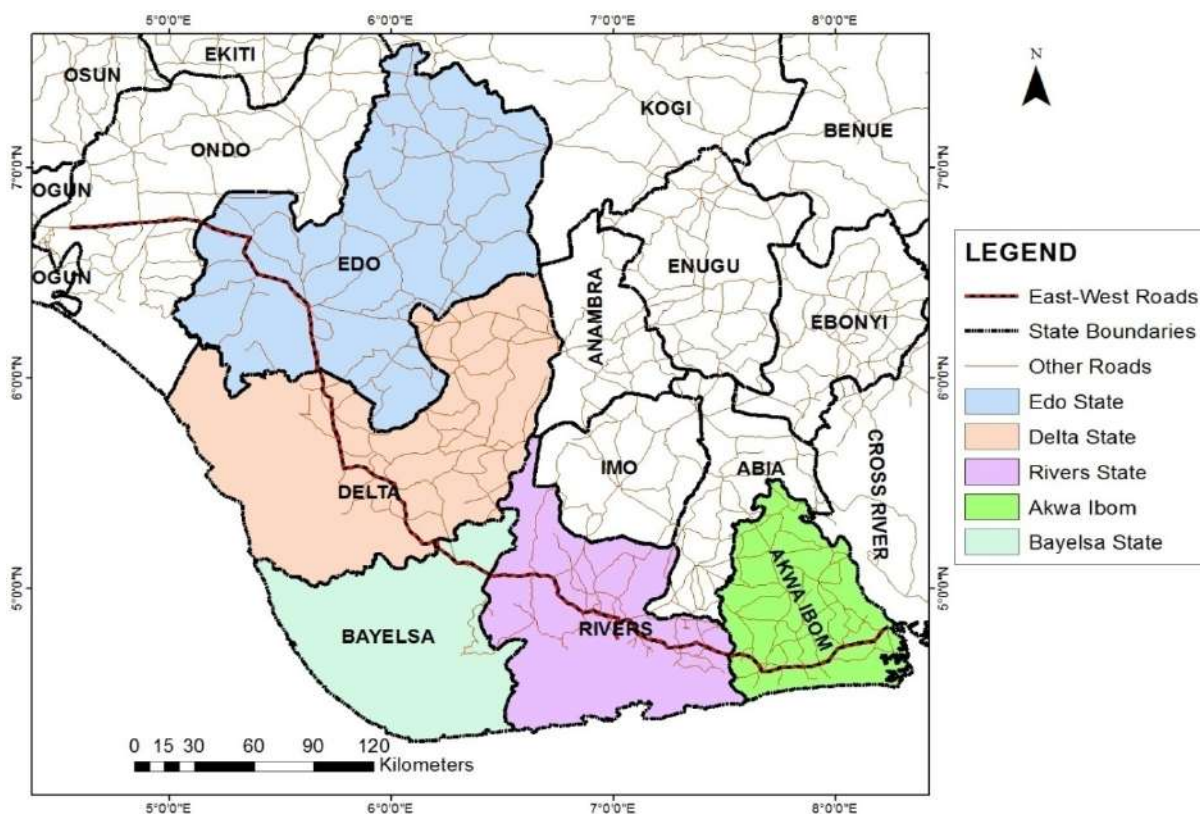

Figure 1: Study Area States in South-south Region of Nigeria

The climate of the area could be classified as humid because it is found within the humid tropics (Abam, 2001). The key climate variable is rainfall which has spatial variation in the study area.

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There are two seasons; wet and dry. The dry season is from November to February, while the wet season is between March and October (Musa *et al*., 2014). During the rainy season, the rainfall could be very high and amounts to over 3500mm per annum (Okhakhu, 2013; Solomon-Ayeh et al., 2015). The area experiences heavy rainfall with storms that are conventional in nature due to the region's proximity to the Equatorial Belt. The South-South Region experiences a double rainfall maximum characterized by two high rainfall peaks with a short dry season and a longer dry season falling between and after each peak. The first rainy season begins around March and lasts to the end of July with a peak in June, this rainy season is followed by a short dry break in August known as August break which is a short dry season lasting for two or three weeks in August. This break is broken by the short rainy season starting around September and lasting till mid-October. The ending of the rainy season is followed by long dry season which starts from late October and lasts till early March with peak dry conditions between early December and late February. Annual rainfall totals vary from 2400 to over 4000mm in the region (Okafor, 2010).

Relief of the South-south Region of Nigeria is generally that of lowland flood plains classified as the coastal Margins and swamps that lie adjacent to the seas. This runs along a coastal strip of land below 30m made of recent deposits of sands, clay and mud. The region is also drained by the Niger River (Iloeje, 2001; Areogheore, 2010). The topography of the South-south region is gently sloping lowland which is less than 10^0 in most areas and the highest part of the lowland which is well drained from mosaic with altitude between 15 and 25 meters (Musa *et al*., 2014). The South-south Region of Nigeria consists of soils of Southern Belts of forest soils and a zone of alluvial soils. Soils in the South-South Region of Nigeria are characterized by humid tropical forest climate zone of the south with wet season and dense forest cover. The coastal area of the South-South Region of Nigeria is dominated by a zone of alluvial soils found on the flooded plains and deltas of river Niger. It is made up of the fresh-water soil of grey to white sand, grey clay and sandy humid topsoil (Iloeje, 2001; Areogheore, 2010). The South-south Region is densely populated with over 30 million people, majority of who reside in the urban centers. It has more than forty ethnic groups, some of which are Ijaw, Efik, Kalabari, Annang, Urhobo and Itsekiri. Between them they speak close to 250 languages (Okhakhu, 2013). Prior to the advent of crude oil and gas explorations which paved way to urbanization, occupational focus in the region was mainly agriculture, highlighted by fishing. Farming, Fishing and coastal trading were the main occupation of the people of the area providing a means of livelihood (Okhakhu, 2013). Presently, the presence of the industries dealing in oil and gas have dominated and created a wide range of other occupations associated with the industry. According to Ukiwo (2009) unemployment is rated at about 8.8%, while underdevelopment level is about 26.2%. Due to the increase in population, some social challenges such as pipeline vandalisation, robbery and kidnapping confront the region (Watts, 2008). The study adopted the cross-sectional research design, which is an in-depth analysis of several variables, and will involve a combination of both primary and secondary methods of data collection. The research design is flexible, appropriate, efficient and economical. It minimizes bias and maximizes the reliability of the data collected and analyzed. The guiding factors in the design will include: the means of obtaining information, the skills available, the objectives and nature of the problem, and the available resources for the

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research work. The cross-sectional study design allows studies to compare many different variables at the same time (Cherry, 2019).

The research design was mostly descriptive thereby encompassing narration of facts and characteristics concerning the traders of the spatio-demographic areas of possible disaster impact on mitigation, preparedness and recovery from disaster at highway traditional markets.

Sampling size is determined by making use of the total of the population of each market using the Taro Yamane's formula:

$$n = \frac{N}{1+Ne^2}$$

where
- n = sample size
- N = Population size (Population of the players, sellers, buyers and auxiliary participants, in the major markets under study)
- 1 = Constant
- E = Error limit or margin of error or level of significance (accepted error set at 5% i.e. 0.05)

Applying the formula, the copies of questionnaire arrived at was 400 based on the Taro Yamane formula. This value was distributed proportionally among the randomly selected local governments in the five states (Table 1).The target population included the sellers and buyers in the markets along this corridor. Simple random sampling was employed in selecting the sample framework and units to which the questionnaire and interviews were administered across the study area. The markets along the East-West Road in each state were used for the study and as a result purposive sampling technique was used in the selection of the markets to be used for the study (Figure 2). The study employed the use of descriptive for data analysis by making use of frequencies and percentages. Results were presented in tables and graphs.

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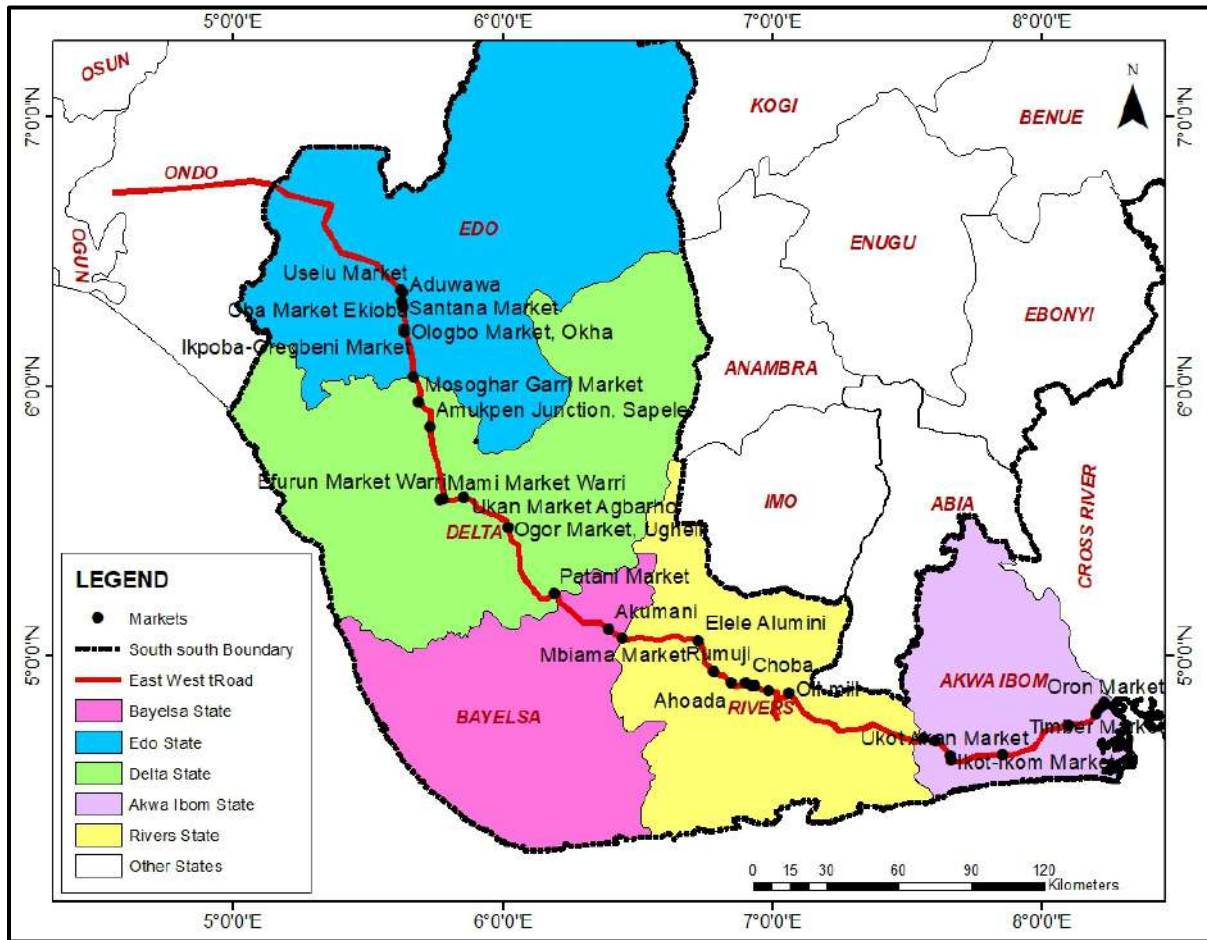
Figure 2: Study Area showing the locations of the markets and East-West Road

Table 1: Population of Market People

SN	Markets in each state	Latitude	Longitude	Possible Market People	Sample Size
	Edo State				
1	Aduwawa Market, Benin	6.292495	5.633107	2183	23
2	Ikpoba/Oregbeni Market	6.45413	5.636542	818	8
3	Oba Market Ekiosa	6.344924	5.634076	1201	13
4	Ologbo Market, Okha	6.195061	5.640243	988	10
5	Santana Market	6.291500	5.632487	823	9
6	Uselu Market	6.35423	5.627558	1587	17
	Delta State				
7	Amukpen Junction, Sapele	5.845087	5.732372	479	5

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8	Efurun Market Warri	5.577819	5.784293	641	7
9	Mami Market Warri	5.57561	5.771427	997	10
10	MosogharGarri Market	5.937093	5.689527	1008	10
11	Ogor Market, Ughelli	5.472184	6.021936	1240	13
12	Patani Market	5.228539	6.191514	767	10
13	Ugbenu Market, Koko Junction, Oghara	6.031833	5.673551	730	8
14	Ukan Market Agbarho	5.584452	5.859784	810	8
	Bayelsa State				
15	Akumani	5.094585	6.396877	736	8
	Rivers State				
16	Ahoada	4.89842	6.847301	1115	11
17	Alakahia	4.88625	6.925416	641	7
18	Choba	4.898573	6.905725	1642	17
19	EleleAlumini	5.053497	6.728224	2137	23
20	Oil-mill	4.857367	7.065261	3538	37
21	Rumuji	4.938553	6.784351	873	9
22	Rumuokoro	4.867468	6.989291	1078	11
23	Rumuosi market	4.88276	6.939807	314	7
24	Mbiama Market	5.06427	6.447635	1679	18
	AkwaIbom State				
25	UduaNko Market Eket	4.642215	7.926350	1960	22
26	Ikot-Ikom Market	4.608313	7.664648	1241	13
27	IkotOsute Market	4.689565	7.565295	849	9
28	EdieneIkotIyang Market	4.680313	7.606898	731	8
29	NdonEyo Market Eket	4.631412	7.857156	728	8
30	Afaha Akai Market IkotNkebek	4.738584	8.103383	561	6
31	Timber Market Oron	4.784224	8.202123	763	8
32	Oron Market	4.816663	8.233266	1119	11
33	Oron Shore Market	4.826445	8.234521	953	10

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| 34 | Ukot Akan Market | 4.625751 | 7.660367 | 381 | 3 |
| | **Total** | | | 37313 | 400 |

Results and Discussions

Socio-economic Characteristics of Respondents

From Table 1, the females in the study exceeded the number of male respondents by 46%, where female and male respondents account for 73.0% and 27.0% respectively. This shows a greater number of female participated and make up the respondents for the study compared to their male counterparts. This result further supports the notion that girls and women predominantly dominate most markets. The sharing ratio of the participants based on gender also indicates that one in every three person at the market is a male. Therefore the result of this study can be generalized and accepted as both gender were adequately represented.

Table 1: Sex of Respondents

Sex	Frequency	Percentage (%)
Male	93	27.0
Female	251	73.0
Total	292	100.0

Table 2 presents the respondents' age bracket. 12.2% of the total respondents were between 18 – 24 years while only 7.8% representing twenty-seven (25) of the total respondents were between 25 - 29 years. The age distribution of the respondents indicates that people that fall between 35 – 39 years and 40-44 had the highest frequency of 67 (19.5%). A further look at the age distribution shows that a greater number of the respondents could be categorised as youth (18 – 44 years) which made up 73.6% of the total respondents.

Table 2: Age Bracket of Respondents

Age Bracket	Frequency	Percentage (%)
18-24	42	12.2
25-29	27	7.8
30-34	50	14.5
35-39	67	19.5
40-44	67	19.5
45-49	52	15.1
>50	39	11.3
Total	344	100.0

Table 3 indicates the marital status of the respondents. The number of married respondents was 230 (66.9%), 105 respondents (30.5%) were still single as at the time this study was conducted

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while 8 respondents (2.3%) were divorced and only one respondent (0.3%) was a widow at the time of this study.

Table 4. Marital Status of Respondents

Marital Status	Frequency	Percentage (%)
Single	105	30.5
Married	230	66.9
Divorced	8	2.3
Widowed	1	0.3
Total	344	100.0

The level of education of the respondents was presented with Table 4. The result shows that 198 respondents (57.6%) of the total respondents had secondary education, 115 respondents (33.4%) had tertiary education while 21 respondents representing 6.1% of the total respondents had primary education and 10 respondents representing 2.4% had no formal education. This implies that most of the respondents had one form or level of education or the other with only 10 having no formal education. This also shows that most of the participants could read and write; therefore, they could fill the questionnaire properly. A few of them require the assistant of an interpreter to explain the items in the questionnaire to them before they could participate effectively.

Table 5.Level of Education of Respondents

Educational Status	Frequency	Percentage (%)
No formal Education	10	2.9
Primary	21	6.1
Secondary	198	57.6
Tertiary	115	33.4
Total	344	100.0

According to the data presented in Table 6, 245 respondents representing 71.2 % of the total respondents were traders; while 39 in number (11.3%) were civil servants and others were 11.0%. However, 18 respondents representing 5.2% were teachers and 4 respondents representing 1.2% of the total respondents were bankers. This results show that the study covers the view of both the traders and the customers.

Table 6: Occupation of Respondents

Occupation	Frequency	Percentage (%)
Teacher	18	5.2
Banker	4	1.2
Trader	245	71.2
Civil Servant	39	11.3
Others	38	11.0
Total	344	100.0

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Table 7 indicates the ethnic group of the respondents. The result of the table shows that the respondents cut across different ethnic groups in the country. Respondents of Igbo ethnic group had the highest frequency of 52 representing 15.1%, closely followed by those of Bini with frequency of 42 respondents representing 12.2% while Ibibio which is the next had frequency of 32 representing 9.3%. The respondents that fell into other ethnic groups that were not listed in the instrument had the lowest frequency of 7 representing 2.0% of the total respondents. The Ijaws and Annangs had 30 respondents each and this represented 8.7%. Ogoni were 7.8%, Isoko 5.8%, Ikwerre 4.9% and Yoruba 4.7%. The implication of this result is that the view of the respondents can be generalized as all the 3 major ethnic groups were covered in this study as well as the view of the major ethnic groups in the South-South region of the country which happened to be the study area.

Table 7. Ethnic Group of Respondents

Ethnic Groups	Frequency	Percentage (%)
Ijaw	30	8.7
Annang	30	8.7
Ibibio	32	9.3
Kalabari	9	2.6
Ogoni	27	7.8
Ikwerre	17	4.9
Bini	42	12.2
Esan	17	4.9
Hausa	15	4.4
Yoruba	16	4.7
Itsekiri	14	4.1
Isoko	20	5.8
Urhobo	16	4.7
Igbo	52	15.1
Others	7	2.0
Total	344	100.0

Table 8 displays the distance of residence from market of the respondents. The respondents who lived 5-10km distances from the market had the highest frequency of 120 representing 34.9% while those who lived between 1-5km followed closely with the frequency of 88 representing 25.6% of the total respondents. It was also discovered that respondents who lived between the distances of 16-20km had the least frequency of 30 representing 8.7% while those who lived more than 20 distances from the market had the second lowest frequency of 46 representing

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13.4% of the total respondents. However, respondents who lived between the distances of 11-15km from the market had the frequency of 60 representing 17.4% of the total respondents who took part in the study. The implication of the variance in the respondents' distances from the market is that the people who converged and transact businesses at these markets come from far and wide, although more people still come from the nearby places to the market. Generally, the view expressed in the study should be taken seriously and could be generalized as well.

Table 8. Distance of residence from Market

Distance (km)	Frequency	Percentage (%)
1-5	88	25.6
5-10	120	34.9
11-15	60	17.4
16-20	30	8.7
>20	46	13.4
Total	344	100.0

Table 9 shows the average annual income of the respondents expressed in Naira. The respondents who earned more than 200,000 Naira annually had the highest frequency of 170 representing 40.4% of the total respondents. The second group of highest earner went to those who earned between 151,000-200,000 Naira annually with the frequency of 64 representing 18.6%. The result of this table also indicates that the respondents who were the least earner (i.e. those who earned between 1,000-10,000 Naira annually) were also with the least frequency of 17 representing 4.9% of the total respondents. It was also observed from this result that the higher the average annual income, the higher the number of people who patronize these markets. The number of frequency responds directly to the amount of the annual income. So, we can confidently say that it was not poverty that made people to trade and buy items from highway markets.

Table 9. Average Annual Income of Respondents

Average Income (Naira)	Frequency	Percentage (%)
1000-10000	17	4.9
11000-50000	27	7.8
51000-100000	31	9.0
101000-150000	35	10.2
151000-200000	64	18.6
>200000	170	49.4
Total	344	100.0

Locational Characteristics of Markets along the East-West Highway in the Study Area

Table 10 reveals the locational characteristics of the markets along the East West highway. In terms of the access, of the total number of markets surveyed, 50% were fair, 41.2% were good

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while 8.8% were poor. The analysis of site condition shows that 20.3% of the markets were poor and 79.4% were fair. The transport to the markets was analysed and it was observed that 58.8% of the market had fair transport, 20.6% had poor transport while 20.6% had good transport. However, the parking facility analysis reveals that 79.4% of the markets had poor parking facility, 17.6% had fair parking facility while 2.9% only had good parking facility. It also observed that most (76.5%) of the surroundings of the markets was fairly kept while 23.5% of the market were poorly kept. Furthermore, the analysis on tall trees around and inside the market was examined and it was revealed that only 29.4 % of the markets were fairly nourished with tall trees while 70.6% were poorly nourished. Further still, 79.4% of the markets were fair in terms of the heaps of refuse. This shows that waste agency were trying their best to keep most of the markets clean. Similarly, stagnant water was fairly managed by 70.6% while 29.4% were poor. The drainages of 70.6% were fairly managed while 29.4% of the market had a poor management. It was informed that all the markets (100%) were poorly equipped with firefighting, evacuation plan, emergency preparedness plan, wall, fire extinguisher and health post. It was found that 61.8%, 94.1%, 94.1%, and 94.1% of the markets had poor security presence, water supply, toilets, and bathrooms respectively. The analysis has also shown that 44.1% of the market had poor street nomenclature and 55.9% had fair street nomenclature. Also, 47.1% had poor floor while 52.8% had fair floor. Talking about the ventilation, the analysis revealed that 14.7% of the markets were poorly ventilated, 82.4% were fairly ventilated while 2.9% were in good ventilation. In terms of lighting, 73.5% had poor lighting, 23.5% had fair lighting and 2.9% had good lighting. The number of sanitary dust bin was poorly found in 73.5% of the markets while 26.5% were fairly found. The rat and vector infestation was poorly managed by 38.2% of the markets while 61.8% had fair management concerning the infestation. There was a poor general cleanliness in 94.1% of the market while 5.9% had a fair general cleanliness. Pedestrian walkway in 85.3% of the market was fair while it was poor in 14.7%. Outside selling area was poor in 41.2% of the market and fair in 58.8% of the markets. Sand and buckets were poorly found in 91.2% of the markets while fairly found in 8.8%.

Table 10. Locational Characteristics of Markets

S/N	Characteristics	Rate	Frequency	Percentage (%)
1	**Access**	Poor	3	8.8
		Fair	17	50.0
		Good	14	41.2
		Total	34	100.0
2	**Site Condition**		Frequency	Percentage (%)
		Poor	7	20.6
		Fair	27	79.4
		Total	34	100.0
3	**Transport**		Frequency	Percent
		Poor	7	20.6

			Frequency	Percentage (%)
		Fair	20	58.8
		Good	7	20.6
		Total	34	100.0
4	**Parking Facility**		Frequency	Percentage (%)
		Poor	27	79.4
		Fair	6	17.6
		Good	1	2.9
		Total	34	100.0
5	**Surroundings**		Frequency	Percentage (%)
		Poor	8	23.5
		Fair	26	76.5
		Total	34	100.0
6	**Tall Trees**		Frequency	Percentage (%)
		Poor	24	70.6
		Fair	10	29.4
		Total	34	100.0
7	**Heaps of Refuse Removal**		Frequency	Percentage (%)
		Poor	5	14.7
		Fair	27	79.4
		Good	2	5.9
		Total	34	100.0
8	**Stagnant water**		Frequency	Percentage (%)
		Poor	10	29.4
		Fair	24	70.6
		Total	34	100.0
9	**Septic Tanks**			
		Poor	29	85.3
		Fair	5	14.7
		Total	34	100.0
10	**Drainages**		Frequency	Percentage (%)
		Poor	10	29.4
		Fair	24	70.6
		Total	34	100.0
11	**Firefighting equipment**		Frequency	Percentage (%)
		Poor	34	100.0

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12	Security presence			
		Poor	21	61.8
		Fair	11	32.4
		Good	2	5.9
		Total	34	100.0
13	Water supply		Frequency	Percentage (%)
		Poor	32	94.1
		Fair	2	5.9
		Total	34	100.0
14	Toilets		Frequency	Percentage (%)
		Poor	32	94.1
		Fair	2	5.9
		Total	34	100.0
15	Bathrooms		Frequency	Percentage (%)
		Poor	32	94.1
		Fair	2	5.9
		Total	34	100.0
			Frequency	Percentage (%)
16	Refuse bays	Poor	18	52.9
		Fair	16	47.1
		Total	34	100.0
17	Rat, pest and rodents Control Facilities		Frequency	Percentage (%)
		Poor	15	44.1
		Fair	19	55.9
		Total	34	100.0
18	Street nomenclature		Frequency	Percentage (%)
		Poor	15	44.1
		Fair	19	55.9
		Total	34	100.0
19	Evacuation plan		Frequency	Percentage (%)
		Poor	34	100.0
20	Emergency preparedness plan		Frequency	Percentage (%)
		Poor	34	100.0
21	Protection Bars/Concrete/Bollards		Frequency	Percentage (%)
		Poor	29	85.3
		Fair	5	14.7
		Total	34	100.0
22	Floor		Frequency	Percentage (%)
		Poor	16	47.1
		Fair	18	52.9

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			Total	34	100.0
23	**Wall**		Frequency		Percentage (%)
			Poor	34	100.0
24	**Premises**		Frequency		Percentage (%)
			Poor	6	17.6
			Fair	28	82.4
			Total	34	100.0
25	**Ventilation**		Frequency		Percentage (%)
			Poor	5	14.7
			Fair	28	82.4
			Good	1	2.9
			Total	34	100.0
26	**Health Post**		Frequency		Percentage (%)
			Poor	34	100.0
27	**Lighting**		Frequency		Percentage (%)
			Poor	25	73.5
			Fair	8	23.5
			Good	1	2.9
			Total	34	100.0
28	**Sanitary Dust Bins**		Frequency		Percentage (%)
			Poor	25	73.5
			Fair	9	26.5
			Total	34	100.0
29	**Rat and Vector Infestation**		Frequency		Percentage (%)
			Poor	25	73.5
			Fair	9	26.5
			Total	34	100.0
30	**General Cleanliness**		Frequency		Percentage (%)
			Poor	32	94.1
			Fair	2	5.9
			Total	34	100.0
31	**Pedestrian Walkway**		Frequency		Percentage (%)
			Poor	5	14.7
			Fair	29	100.085.3
			Total	34	
32	**Outside Selling Area**		Frequency		Percentage (%)
			Poor	14	41.2
			Fair	20	58.8
			Total	34	100.0
33	**Sand and Buckets**		Frequency		Percentage (%)
			Poor	31	91.2
			Fair	3	8.8

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		Total	34	100.0
34	**Fire Extinguisher**		Frequency	Percentage (%)
		Poor	34	100.0

The result of Table 11 shows the hours of operation of the markets covered. More than 75% of the markets along East – West Road in the South-South States of Nigeria operate between 6am – 6pm with the frequency of 275. The markets that operate from dusk to dawn were 34 in number representing 9.9% while those that beyond 6pm were 14 representing 4.1% which is also the market with the least frequency. Therefore, the predominant operating hours for the markets along the East – West highway in the South-South States of Nigeria is 6am-6pm.

Table 11. Hours of Operation

Hours of Operation	Frequency	Percent
Dusk-Dawn	34	9.9
5am-5pm	21	6.1
6am-6pm	275	79.9
Beyond	14	4.1
Total	344	100.0

Table 12 indicates the age of the markets along the East – West highway in the South-South States of Nigeria. The markets that are more than 20 years had the highest frequency of 303 representing 88.1% of all the markets in the study area. The results in this table indicate that more than 96.5% of the total markets in the study area are at least 16 years old. This means that most of the markets are very old.

Table 12: Age of the market

Age	Frequency	Percent
1-5 years	1	.3
6-10 years	8	2.3
11-15 years	3	.9
16-20 years	29	8.4
Above 20	303	88.1
Total	344	100.0

Discussions

Findings showed that female respondents were higher than the male respondents. This shows that women participation in the highway market is more than that of men. Wooten (2003) reported that from a wide range of social and geographic settings indicates that factors such as ethnicity, class, age, and gender often play important roles in shaping specific patterns of participation in market production. The sharing ratio of the participants based on gender also indicates that one in every three person at the market is a male. The gender distribution is however not surprising since most previous studies on markets in Africa (Good, 1975; Tinkle, 1973; Riddel, 1974; Allen,2012),Women's participation in formal and informal labour markets is on a positive trajectory and has been rising in both rural and urban areas through the period 1990-2009 but

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remains lower than that of males (Olowa & Adeoti, 2014). This is an acceptable rate because in most of the markets are found in the rural communities and most rural markets are dominated by women in the Southern parts of Nigeria and men provide services. This is in conformity to the findings of Ambakederemo & Kalu (2018). Olorunfemi (1999) described the women in the Southwest Nigeria as homemakers and managers, particularly in housekeeping, and will therefore encourage them to visit markets to trade and make purchases. The age distribution of the respondents indicates that people that fall between 35 – 39 years and 40-44 had the highest frequency of 67 (19.5%). They are therefore categorised as youths which are found in the working age bracket. This age bracket has the strength to be involved in the trading activities. In terms of occupation status, the traders dominated and followed by the civil servants. This conforms to the findings of Allen (2012) whereby the trading women carried the highest number of the respondents in the periodic market in Akungba Akoko in Ondo State. The number of married respondents of more than 65% and singles 30.5% were the dominating group of marital status. It has been the nature in the African setting that married women are more engaged in trading. It is recently that the unemployed youths who are still singles are involved in trading. This may be due to the poverty level ravaging individuals in the recent economic hard times. Majority of the respondents attended secondary and tertiary institutions and this gave them the indication that they can read and write. This still can still be attributed to the difficulty in the economic strength being faced in Nigeria and many developing countries whereby well-read people are involved in periodic market to survive in life. Igbo ethnic group was observed to be the highest in the respondents in the entire study area. There is possibility of the presence of Igbo ethnic group in 80% (Edo, Delta, Rivers, Bayelsa) of the entire study area (Otite, 1990). Northrup (1972) had reported that the peoples of south-eastern Nigeria have been involved in trade for as long as there are any records. The archaeological sites at Igbo-Ukwu and other evidence reveal long distance trade in metal and beads, as well as regional trade in salt, cloth, and beads at an early date. Thus, they have the ability to trade at all angles. Majority (60.5%) of the respondents lived close to their respective markets. Allen (2012) gave an indication that proximity to their residence is an important factor for market participation by an individual and it has played an important role in the choice of where to trade. Hodder (1977) has reported of some markets in Ibadan where location of markets is determined by convenience of access from all settlements. On the other hand, Bromley et al (1975) argued that periodic markets could also be encouraged by their ability to meet the needs of the local producers, the organization of time, inertia, and comparative advantage.Findings showed that the locational characteristics of the markets along the East-West highway varied among the markets due to different ways of perception of the residents but the most important thing is that majority of the facilities that make the livelihood of markets to be enhanced are not there and this made the market along the highway in the South-south to be lagging behind especially when compared with their counterparts in the developed world.

Conclusion and Recommendations

The study has been concluded that majority of the market did not have good attributes especially in terms of the parking facility, waste management, firefighting, evacuation plan, emergency preparedness plan, wall, fire extinguisher, health post, security presence, water supply, toilets, and bathrooms. It is therefore suggested that the environmental health of the markets should be brought to a better one by making provisions for the poorly and fairly found facilities to make the market compete with what operates in the developed world.

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