

The Social And Economic Impacts Of The Mile 1 Rumuwoji Market In Port Harcourt On Its Immediate Environs

Ibama Brown, Wocha Chikagbum, Udoh Imoh Jerimiah

ABSTRACT: In recent years, the development of standard markets and its impact on the environs has become a burning issue in the minds of many governments and people alike. Consequently, this paper is poised to take a comprehensive look at the location of the Rumuwoji Mile 1 Market in Port Harcourt with respect to the social and economic impacts on the environs. The State Government has shown considerable interest in the location of the market and other ancillary activities and facilities around it. This led to considerable emphasis being placed on the relationship between the various land-uses, viz: residential, commercial, recreational, transportation etc, in most urban centers in like Port Harcourt. This has become imperative as there seem to be palpable hazards and effects being exacted on the environs daily by different socio-economic activities within and around the market. In the same vein, this paper has taken special interest in identifying different hazards and the real and potential effects the Mile 1 Rumuwoji market has on its immediate environs as a segment of an urban city of Port Harcourt. The methodology employed in conducting the research was the Hazard and Effect Management Process (HEMP) to ascertain the hazards and effects posed by the market. From the research, it was discovered that the market serves as a central place because it attracts people from different origin to the area and that properties in the area are of mixed uses. The market provides employment in the area. Noise and unhealthy sanitary practices are allowed to thrive there and inadequate parking spaces. To mitigate these challenges, some of the recommendations includes: the adoption of the social impact mitigation and enhancement framework, provision of basic facilities and services, the creation of more parking spaces. Sanitary laws and effective refuse collection and disposal should be put in place. If these are done, the living conditions of the people living in the area will be improved and the quality of their lives enhanced.

Keywords: Central Place, Effects, Hazards, Market, Mitigation and Enhancement

INTRODUCTION

A market is one of the many varieties of systems, institutions, procedures, social relations and Infrastructures whereby parties engage in exchange. While parties may exchange goods and services by barter, most markets rely on sellers offering their goods or services (including labor) in exchange for money from buyers. It can be said that a market is the process by which the prices of goods and services are established. A Market facilitates trade and enables the distribution and allocation of resources in a society. Markets allow any trade-able item to be evaluated and priced. Wikipedia. A market emerges more or less spontaneously or may be constructed deliberately by human interaction in order to enable the exchange of rights (cf. ownership) of services and goods. Markets can differ by products (goods, services) or factors (labour and capital) sold, product differentiation, place in which exchanges are carried, buyers targeted, duration, selling process, government regulation, taxes, subsidies, minimum wages, price ceilings, legality of exchange, liquidity, intensity of speculation, size, concentration, information asymmetry, relative prices, volatility and geographic extension.

The geographic boundaries of a market may vary considerably, for example the food market in a single building, the real estate market in a local city, the consumer market in an entire country, or the economy of an international trade bloc where the same rules apply throughout. Markets can also be worldwide, for example the global diamond trade. National economies can be classified, for example as developed markets or developing markets. Wikipedia Dowall (1993) states that markets provide for the exchange of goods and services between buyers and sellers and that all market transactions have three dimensions, that is, a product, a quantity and price as well as product, buyer and seller. Market as we know is an economic (human) activity which takes place in specific activity centre for the sole purpose of buying and selling of goods. It is a meeting point for human interaction; therefore, it cannot be treated in isolation from what is happening to other human activities, such as residential, commercial, industrial, recreational, transportation, agricultural etc going on around it. This paper tries to recognize two relationships in this setting. The first is the business of buying and selling that is going on there and its immense benefits on the people in the market on one hand, and secondly how this activity of buying and selling is affecting other types of activities outside the market but located within a perimeter distance to the market and further interested in finding out how these activities affect each other in relation to the Mile 1 Rumuwoji market Diobu, Port Harcourt.

HISTORICAL BACKGROUND OF MARKET

History and anthropology provide many examples of economies based neither on markets nor on commerce. An exchange of gifts between communities with different resources, for example, may resemble trade, particularly in diversifying consumption and encouraging specialization in production, subjectively it has a different meaning but

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Market of the earliest archaeological discoveries of ten thousand years ago are basically similar to those found in present day villages and towns. The character of markets however varies with the people who use them and their way of life. The simplest market then was merely stalls with thatch as roofs/shield or that the character of markets however varies with the people who use them and their way of life. The simplest market then was merely stalls with thatch as roofs/shield or that made of raffia, bamboo or grass supported on sticks of tree branches or bamboo stems. Britannica.com In these days and as it still exist in our rural areas, markets are normally held at intervals depending on the cultural beliefs of the people. Markets then did not only serve as commercial centres but also a meeting place where people may like to linger. This is why there were always places reserved for eating, talking, refreshment etc Ibru, (1976). Market of the earliest archaeological discoveries of ten thousand years ago are basically similar to those found in present day villages and towns. The character of markets however varies with the people who use them and their way of life. The simplest market then was merely stalls with thatch as roofs/shield or that Market of the earliest archaeological discoveries of ten thousand years ago are basically similar to those found in present day villages and towns. The character of markets however varies with the people who use them and their way of life. The simplest market then was merely stalls with thatch as roofs/shield or that made of raffia, bamboo or grass supported on sticks of tree branches or bamboo stems.

STATEMENT OF THE PROBLEM

The presence of the market poses several problems ranging from psychological, physical, emotional, economical etc. These are felt in the areas of the following:

Noise: These are loud sounds that are disturbing and unpleasant coming from within and around the market.

Traffic Congestion: This is induced by the presence of the market. This can be observed during the peak and off-peak periods of the day (i.e. 7am – 9am and 4pm – 8pm).

Clustering of people: The market to pulls people from all spheres of life due to the inherent employment and job opportunities that abound within and around the market and its environs.

Waste Generation: Markets all over the world are places known to generate waste, and in most cases refuse are dumped indiscriminately.

High Demand for Land and Landed Properties: This can be observed in the incessant rent increment and demand for land for commercial uses around markets.

These, when aggregated cause adverse effect on the social and economic environment and create nuisance in the entire neighbourhood. The assessment and documentation of the aforementioned problems, coupled with their basic roles and contributions is the main focus of this study.

GOAL

The broad goal of this paper is to examine the social and economic impacts of the Mile 1 Rumuwoji market on its immediate environs.

OBJECTIVES

The Objectives of the Study are to:

- Identify the problems created by the market on land use pattern.
- Identify the social and economic impacts of the market on the various land uses.
- Identify problems associated with land use which includes conflicting and non-conforming land uses.
- Evolve remedial measures for improving on the problems so identified.

LITERATURE REVIEW

ORIGIN AND DEVELOPMENT OF MILE 1 RUMUWOJI MARKET

The Mile 1 Rumuwoji market was formerly called “*Ahia Rumuwoji*” a name given to it after its host community (since it is situated on Rumuwoji land). It emerged as market in the late 1930’s with only food stuff as its main goods. It operated in an open space except for few traders who were able to erect thatched shades. The buying and selling usually came on an interval of one week (i.e. every Saturday or each week). The presence of the railway played a significant role in the development of the Mile 1 Rumuwoji market (*Ahia Rumuwoji*), this is because transporters and traders of goods stop by at the market to make bargain and transaction. The population growth of Port Harcourt and Diobu in particular coupled with high demand for market made it possible for the market to operate on daily basis instead of the former weekly pattern, Nsiegbe (1960).

DESCRIPTION OF MILE 1 RUMUWOJI MARKET

The mile 1 Rumuwoji market is situated in Rumuwoji Community in Port Harcourt. Interestingly, the market has two (2) parts; the newly built Ultra-Modern and the Local Open market. Originally, the market was a quintessence of the African/Traditional market before a reconstruction of the market was necessitated by an inferno in 2004. The space used now as open/traditional market is to be used subsequently by the government for the second phase of reconstruction after it was engulfed by fire. Sometimes in 2007, the Rivers State government contracted the reconstruction of the market in two (2) phases. While the Ultra-Modern is a two (2) storey building with about a thousand stalls, the old traditional market lies open with canopies as shield against harsh and adverse weather condition. The Ultra-Modern market is built with ancillary facilities and services. Types of goods found there include domestic utensils, confectionaries, toiletries, household appliances, stationeries fabrics etc. Beneath the structure are parking spaces, however, motorists and car owners are

levied N50 for each vehicle parked. At the back of the edifice are situated canteens and bar for customers and traders use. On each floor of the building, there are conveniences that are properly taken care of by service providers. The local open market is built with tarpaulin and canopies, and segmented into different lines and shades. This side of the market is clustered with traders dealing on stationeries, building materials, medicine and drugs, cosmetics, enamel wares, fabrics, foot wears and handbags, cosmetics, jewelries and other household appliances. Other items sold are fruits, groceries, vegetables, agricultural produce, biodegradable and perishable goods. The Mile 1 Rumuwoji market provides a wide variety/range of goods necessary for the survival comfort and health of the citizenry. The Mile 1 Rumuwoji market has two functional markets; the ultra-modern market and the old traditional open market. Shortly after the market was burnt down in January, 2004, the Rivers State Government awarded a contract for its rebuilding. It was to be done in two phases. At the completion of the first phase, 1000 stalls were delivered. About 650 displaced traders were dissatisfied with the way the stalls were allocated. Some of the allottees were demanding between N7,000 and N10,000 a month for small shops and between N15,000 and N20,000 monthly for front shops. This they said has led to the low capacity utilization of the market. It was also later gathered that the Rivers State Government had allocated the shops for about N220,000 for ground floor, N160,000 for first floor and N130,000 for second floor. The payments were to be completed in two installments. Traders also lamented that many of the allottees had high price-tags on the stores for renting them out, therefore frustrating governments intention to make the market fully functional Mike-Jaja, (2012).

THE BUYERS AND SELLERS

The market enjoys patronage from far and near, because it offers central goods and services. Buyers come from as far as the Borikiri axis (which is the southern end of the city of Port Harcourt), down to the Riverine communities in the state, like Okirika, Buguma, Bonny, Degema etc. People from communities on the northern axis of Port Harcourt like Nchia, Eleme, Isiokpo, Elele, Igwuruta etc find their way to the market to make their purchases, either wholesales or retails. The sellers were predominantly Igbos, but these days one is quick to observe the heterogeneity in the population of the sellers in the market. This can be attributed to the immense benefit accruing to the presence of the market in terms of employment generation and economic gains.

THE UNIQUENESS (IMPORTANCE)

It is worthy of note that the mile 1 Rumuwoji market is the biggest market in Rivers State with regards to service, functions and employment. The market performs more important or more central functions and exercise importance or influence over large areas. The market serves as a central place which has central functions that extend over a larger region in which central places of less importance exists. For now the only substitute for the market is the Aba Main Market. Little wonder why people from all walks are prepared to travel to come down and shop at the market. This is why the Mile 1 Rumuwoji

market is a household name and a force to reckon with when it comes to markets.

ITS COMPLEMENTARY REGION

The region for which a central place is the centre is called the Complementary Region. The complementary region in this case is spread down to the new markets around Churchill streets, Creek Road markets, Lagos Bus stop and Odua road markets (ie towards the south of Port Harcourt). The Nkpolu-Oroworukwo mile 3 markets, Rumuigbo market, Rumuokoro market etc (towards the north of Port Harcourt).

THRESHOLD REQUIREMENT OF GOODS AND SERVICES

The threshold requirement for a central good or service is into existence and to keep it going; Alber, Adams and Gould, (1971). Threshold has most traditionally been defined as the minimum population required making provision of a good or service minimally profitable, worthwhile and economical. The population of Diobu and its environs gives the market the best it deserves. The population is further augmented by the thousands of people from the periphery of the city that troop in and out of the market daily for their various transactions.

RANGE OF GOODS SOLD IN THE MARKET

The range of a good is the average minimum distance that prospective consumers are willing to cover in order to consume that good or service. Distance in this context means economic distance. Economic distance is the physical distance converted into such units as cost of overcoming the friction of space, or cost of travel, time wasted, and discomfort encountered among others. Owing to the order of goods and services that is obtainable at the Mile 1 Rumuwoji market, consumers travel some kilometers to avail themselves of the availability of such goods and services at affordable rates/prices. That explains why consumers come all the way from Bonny Island, Nembe and Mbiama which are several kilometers away to shop at the market.

CONCEPTUAL FRAMEWORK

MULTIPLE NUCLEI THEORY

In this theory, Harris and Ullman suggested that the city has developed a number of areas that group around the nuclei. The emergence of these separate nuclei is a response to four factors:

- Certain activities require specialized facilities for example; a part district needs suitable water front.
- Similar functions group together because they profit from juxtaposition, like commercial activities.
- Certain unlike activities are detrimental to one another. For example light industry and residential development repel each other.
- Certain activities cannot afford high rents of the most desirable sites. For example a barbing saloon cannot afford the rent that office functions such as banks are prepared to pay for centered locations.

CENTRAL PLACE THEORY

A central place is therefore a place which has central functions that extends over a larger region in which other central places of less importance exist (Christaller/Baskin 1966). This is concerned with the location, spacing, size, ordering and nature of clusters offering retail service activities for the surrounding territories. Its classification formation was based on the principle of centralistic order of human structures similar to crystallization of mass around a nucleus. The theory is based on providing central goods and services to point bound disposed settlement location within their respective complementary regions of various orders in accordance with their importance and centrality governed by the economic distance and range of goods and services offered. The theory assumed homogenous unbound plain having uniform distribution of resources, population income demand, propensity of consumption and unrestricted movement of opportunities in every direction so that the limit cost of transport varies only with distance and rational behaviour. In such an ideal situation, each goods offered at a central place will carve out its market areas through the interplay of three factors – Demand functions, Economy of scale and the cost of transportation. As assumed, each consumer will satisfy his demand for goods and services at the nearest centre, the market around a centre will be circular but ultimately if the whole plain is covered by a system of central places the market areas will be hexagonal, the geometrical figure closest to a cycle having no interstitial un-served spaced. As the range and minimum market area required differ among various goods and services provided, each will have its relevant market area, such goods which need largest minimum market areas to be profitable proposition will be offered at a centre space at the greatest interval. The central place theory of Christaller thus provides a deductively derived model of spatial organization having the following spatial (horizontal) and functional (vertical) features.

- The central places are on our isotopic surface regularly spaced in triangular attics having hexagonal complementary, regions (market area).
- Higher order centres are more widely spaced their lower order ones.
- Higher order centres supply goods and services in higher ranges in addition to the goods and services of lower ranges supplied by lower order centres.
- Most of the market areas of lower order centres in definite hierarchical system varying under the three principles namely: marketing, traffic and administration.

Subsequent elaborations and modifications of the theory have been concerned with deriving alternative systems of spacing and hierarchical arrangement of centres, examination of different shapes of market areas and empirical verification of the hierarchy by relaxing the underlying assumptions (Berry and Pred 1961).

RELATIONSHIP OF THE CONCEPTS WITH THE MARKET

The multinuclear and central place theories are used in this research as a conceptual framework to buttress the functional parameter of a market. Like the market, the multi-nuclei theory is based on the assumption that development in an urban centre does not necessarily begin

from one nucleus or central business district rather there could be other nuclei for development. This theory becomes very relevant here in Port Harcourt when you examine the pattern of development. For example, in the assumption that the Central Business District of Port Harcourt is within the Aba/Port Harcourt Expressway/Forces Avenue to the South and Moscow Road Secretariat and Bank Road intersections to the north, does not imply that development is concentrated there too. Rather there are other places such as Mile 1 Rumuwoji market area where development has gained momentum because of its socio-economic importance. For instance there are government offices, companies, banks and other commercial establishments springing up around the area. The Central place theory; the basic assumption is relatively applicable to the Mile 1 Rumuwoji market because it provides central goods and services to its surrounding environment. Although there is no specific threshold population for the market since people outside the urban periphery troop in and out daily for their business transactions.

METHODOLOGY

It is pertinent to note that much of the study was designed to obtain empirical data from both quantitative and descriptive information, and Primary and Secondary data were collected for analysis. The Hazard Effects Management Process (HEMP) methodology was used to; identify the potential impacts, qualify the impacts, rate the significance level of the impacts and the consequences of the impact of the market on its environs. SPDC, (2005)

METHODOLOGY FOR IMPACT ASSESSMENT

The methodology used here is the Hazard and effect management process (HEMP). This method entails identifying hazards and sensitivities. A 'hazard' has been defined as "an aspect of the activities or facilities of a project during all of the phases that has the potential to cause harm to the environment" SPDC (2005). 'Sensitivity' is a specific characteristic of the (Social) environment which, once disturbed, leads to the disturbance of the stability or integrity of the environment" SPDC, (2005).

Identification of Impacts

The Leopold matrix of Sensitivities against hazards is used to identify impacts, by noting the nature of interaction between hazards and sensitivities.

Qualification of Impacts

Impact qualification means specifying the following attributes for each impact.

- Positive or negative
- Direct or Indirect
- Short term/Temporary or Long-term/Permanent
- Reversible or Irreversible
- Incremental or Non-incremental
- Nature of the source or hazard

RATING SIGNIFICANCE (RISK) LEVEL OF IMPACTS

Using the hazard and Effect management process (HEMP) approach, rating of impacts is carried out with reference to the probability of their occurrence and their consequence. Likelihood or probability of Impact occurrence: Estimation of

probability (likelihood) of occurrence is a qualitative issue – it is not usually practicable to quantify the statistical probability of occurrence of an impact. However, a simple, qualitative estimation can yield meaningful results, e.g. High probability (80-100%) refers to a very likely or very frequent impact (e.g. Continuous/Hourly) Medium High probability (60-79%), refers to a likely or frequent impact (E.g. Daily/Weekly). Medium probability (40-59%) refers to a possible or occasional impact (e.g.; monthly). Medium low probability (20 – 39%) refers to an unlikely impact (e.g. One that occurs in 1- 10 years). Low probability (1 – 19%) refers to a very unlikely or rare impact (e.g.: One that will take over 10 years to occur).

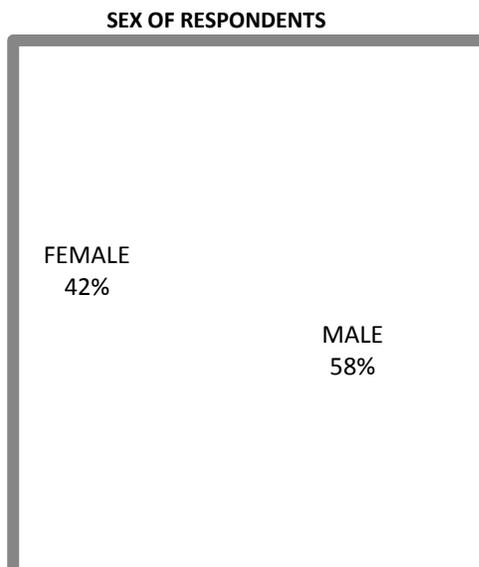
CONSEQUENCE OF IMPACTS

The potential consequences of an impact depend on two (2) things:

1. The magnitude of the potential changes to the (social) environment, caused by a hazard.
2. The level of sensitivity of the receiving environment.

DISCUSSION OF FINDINGS

FIG. 1: SEX OF RESPONDENTS



Source: Authors' field work, 2015

The chart above shows that 58% of the respondents were male and 42% were female this is an indication that it is a male dominated area.

Table 1: AGE-DISTRIBUTION OF RESPONDENTS

AGE	MALE (N= 75)	FEMALE (N=75)
21-25	0	0
26-30	17%	0
31-35	8%	9%
36-40	33%	7%
41-45	0	29%
46-50	42%	7%
51-55	0	34%
56-60	0	0
60 and above	0	14%
TOTAL	100%	100%

Source: Authors' Field Work, 2015

AGE-SEX DISTRIBUTION OF RESPONDENTS

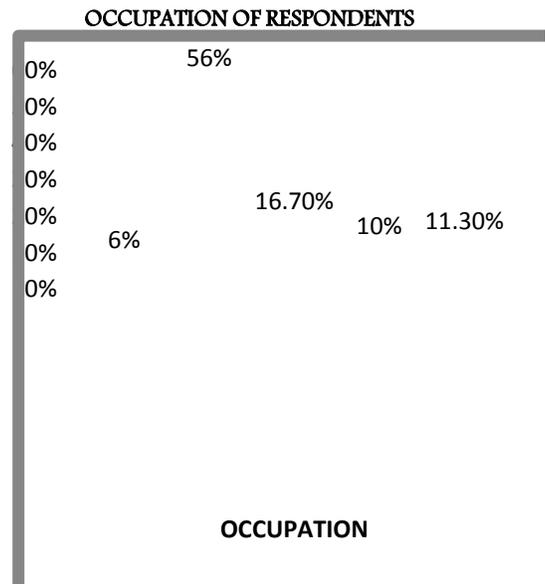
The table 1 above shows that 42% of the male respondents fall between the age group of 46-50 years and 8% fall between the age group of 31-35 years. Female respondents between 51-55 years made up for 34% and 7% between the ages of 36-40.

TABLE 2: RESPONDENTS PLACE OF ORIGIN

S/N	Areas of Origin	No.	%
1	Natives of Mile 1 Areas of Diobu	13	8.6
2	Other Parts of Rivers State	46	30.7
3	Non-Rivers Indigenes	91	60.7
	Total	150	100

Source: Authors' Field Work, 2015

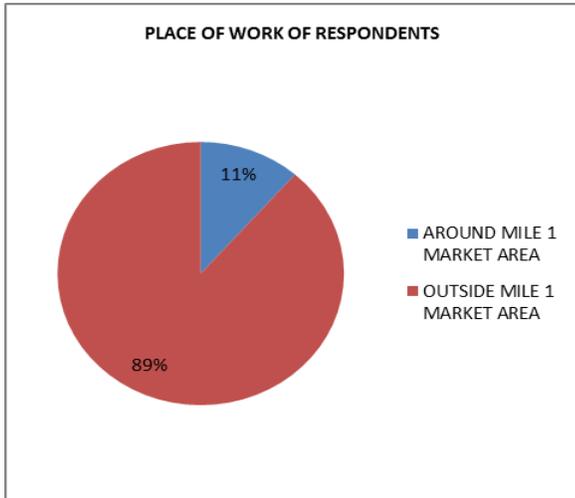
FIG.2: OCCUPATION OF RESPONDENTS



Source: Authors' Field Trip, 2015

Figure 2 above shows that 56% of the respondents are traders and 6% are into fishing/farming, Technical/vocation has 16.7%, unemployed respondents are represented by 11.3% and those engaged in other forms of occupation are 10% activities.

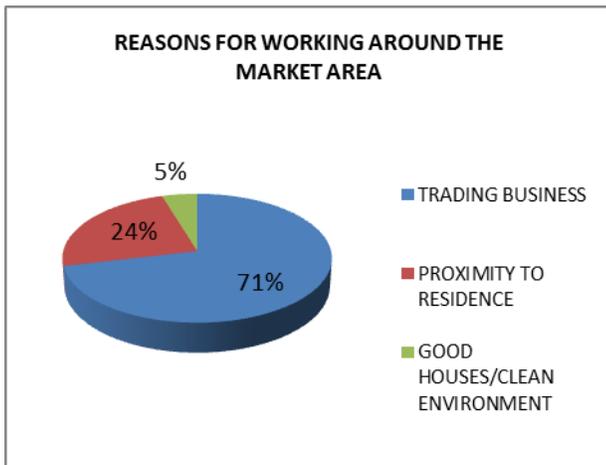
FIG. 3: PLACE OF WORK OF RESPONDENTS



Source: Authors' Field Trip, 2015

Figure 3 above shows that 41.3% of those interviewed work around the Mile 1 market area and 58.7% work outside the area.

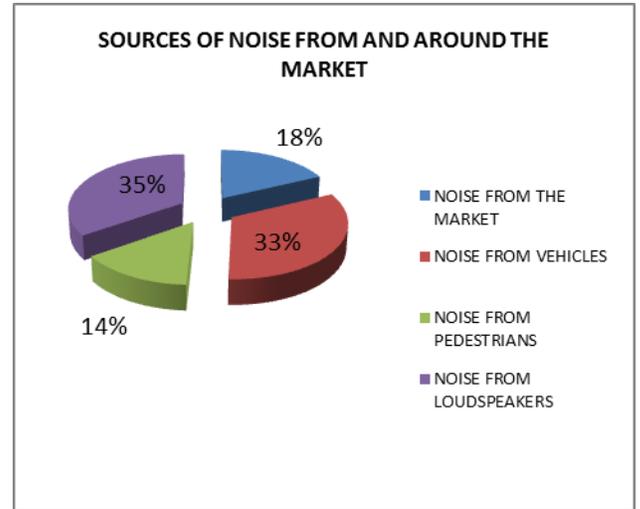
FIG. 4: REASONS FOR WORKING AROUND THE MARKET



Source: Authors' Field Trip, 2015

Figure 4 shows that out of the respondents working around Mile 1 market 71% work there because of the trading business around there and 5% work there because of the good houses and the clean surroundings.

FIG. 5: SOURCES OF NOISE AROUND THE MARKET



Source: Authors' Field Trip, 2015

Sources of Noise in the Area

The figure 5 above shows that 35% of the noise is generated from loudspeakers by those selling their products, 14.6% of the noise is generated from pedestrians, 33% comes from noise from vehicular traffic and 18% is generated from within the market.

TABLE 3: EFFECT OF NOISE ON INDIVIDUALS

S/N	LEVEL OF NOISE EFFECT	NO. OF RESPONDENTS	%
1	Adversely	76	50.7
2	Moderately	49	32.6
3	Very Little	25	16.7
	Total	150	100

Source: Authors' Field Trip, 2015

Effect of Noise on Individuals

The table 3 above shows that 50.7% of the respondents think the noise generated in the area has an adverse effect on them and 16.7% think that the noise has very little effect on them.

TABLE 5: LEOPOLD MATRIX OF HAZARDS AND ENVIRONMENTAL SENSITIVITIES

Design of Market place	Overcrowding	Presence of inflammable materials	Human/Solid Waste	Location of market	Administrative maintenance	Trading	Electricity consumption	Water consumption	Land take	Display of Goods outside stalls	Noise	Influx of persons	Market generated traffic	Waste generation	Environmental Sensitivities
												4			High rents on space of final structure development
						13									Sources of Environmental Sensitivities
															High turn over
															Cultural values and languages
			17								8		1		Health and morbidity
						14									Poverty
									10			5			Access to Housing
		18					12	11				6			Safety and security of living environment
															Access to existing/available facilities and services
				16											Betterment
	19														Access to housing
													3		Access to transportation
															Promotion of equal opportunities
										9					Undue use/takeover of kerbs (sidewalks)
															Religious balance
															Agglomeration Economics
												7			Crime associated with clustering of people
															Littering and indiscriminate dumping of refuse
															Unorganized market system (i.e. market spill)
															Morals and family values
						15									Social exclusion
															Job opportunities
															Respect for physical and mental handicaps
													2		Access to sanitation and waste management
															Ethnic Balance
															Access to recreational facilities
															Respect for human rights

ENVIRONMENTAL SENSITIVITIES

APPLICATION FO THE METHODOLOGY FOR IMPACT ASSESSMENT

LEOPOLD MATRIX OF HAZARDS AND ENVIRONMENTAL SENSITIVITIES

The table is the Leopold matrix of Hazards and Environmental Sensitivities. The figures in the matrix show various interactions between Hazards/sources of Effects and Environmental Sensitivities. Each interaction point will yield one or more impacts.

TABLE 6: IMPACTS, QUALIFICATION AND RATING

Interaction Code	Hazard Source of Effect	Sensitivity	Impact Description	Qualification	Likelihood	Consequence	Impact rating
1.	Waste Generation	Health and Morbidity	1. Increase in morbidity and health Challenges	- Negative - Direct	High	Extreme	Major
2.		Access to Sanitation and Waste Management	2. Poor Sanitation and Sanitary conditions	- Negative - Direct			
3.	Market Generated Traffic	Access to Transportation	3. Increase in Traffic generated problems	- Negative - Direct - Reversible	Medium	Considerable	Minor
4.	Influx of persons	High rents on rooms, shops and office spaced	4. Increment in rent on rooms, shops and office spaces	- Negative - Direct - Incremental	High	Great	Minor
5.		Access to housing	5. Reduction in available housing	- Negative			
6.		Access to Existing/Available facilities and services	6. Over pressure on available facilities and services	- Negative - Direct - Incremental			
7.		Crime Associated with clustering of people	7. Increase in crime associated with clustering of people	- Negative - Reversible			
8.	Noise	Health and Morbidity	8. Increase in health challenges and morbidity	- Negative - Short term - Direct	Medium	Extreme	Minor
9.	Display of goods outside stalls	Undue use/Takeover of kerbs	9. Increase in use of kerbs	- Negative - Short term	Medium low	Hardly any	Minor
10.	Land take	Access to housing	10. Reduction in available housing	- Negative - Direct	High	Extreme	Major
11.	Water consumption	Access to Existing/Available Facilities and services	11. Overpressure on available facilities and services	- Negative - Short term - Reversible	Medium high	Considerable	Moderate
12.	Electricity	Access to Existing/Available Facilities and Services	12. Over pressure on available facilities and services	- Negative - Short term	Medium	Considerable	Moderate
13.	Trading	Levels of income/financial flows	13 Rise in level of income/financial flows	- Positive			
14.		Poverty	14. Reduction in poverty	- Positive			
15.		Job opportunities	15. Increase in job opportunities	- Positive			
16.	Location of market	Betterment	16. Increase in the value of land and landed properties	- Positive			
17.	Human/solid	Health and Morbidity	17. Increase in Health challenges and morbidity	- Negative - Direct - Reversible	High	Extreme	Major
18.	Presence of Inflammable materials	Safety and security of Living Environment	18. Threat to safety and security of living environment	- Negative	Medium	Considerable	Moderate
19.	Overcrowding	Access to Housing	19. Reduction in Available Housing	- Negative	High	Great	Major
20.		Agglomeration Economics	20. Increase in Agglomeration Economics	- Positive			

Source: Authors' Field Trip, 2015

IMPACTS, QUALIFICATION AND RATING

The table describes the impact description that the interaction between hazards and Environmental Sensitivity yields. The impact qualification is based on the effect of the hazard on the environmental sensitivities with reference to their attributes. Qualifications could be positive or negative, direct or indirect etc. The rating of impacts is carried out with reference to the probability of their occurrence and consequence.

TABLE 7: SOCIAL IMPACTS MITIGATION AND ENHANCEMENT FRAMEWORK

S/NO	Impact Description	Gross Rating	Mitigation/Enhancement Mitigation	Net Rating
1.	Increase in morbidity and Health Challenges	Major	M1. Bagging of refuse to reduce/eliminate spilling and indiscriminate dumping of refuse and shop-to-shop collection method should be adopted.	Moderate
2.	Poor Sanitation and sanitary conditions	Minor	M2. Regular cleaning exercises should be adopted and penalties for defaulters of sanitary laws.	Minor
3.	Increase in Traffic generated problems		M3. Traffic wardens (TIMARIV and Police) should be deployed to the area to forestall incidence of traffic congestion.	
4.	Increment in rent on rooms, shops and office spaces	Major	M4. Rent on rooms, shops and office spaces should be regulated by the government.	
5.	Reduction in available housing		M5. New and affordable houses should be provided by the government. Also landlords are to be encouraged to beef up their housing capacity by erecting storey-buildings and Decongestion.	
6.	Overpressure on available facilities and services		M6. Decongestion of the area, fortification of existing facilities and provision of more for the area.	
7.	Increase in crime associated with clustering of people		M7. Security checks should be conducted frequently and more stern security measures should be adopted.	
8.	Increase in morbidity and health challenges due to noise pollution	Major	M8. A reduction in the use of horns, bells, megaphone and other devices that amplify sound in the environs.	Minor
9.	Increase in the use of kerbs (sidewalk)	Minor	M9. The kerb should be rid of wares and items. Traders should restrict their display to the shops/stalls. Defaulters should be penalized/prosecuted.	
10.	Reduction in Available Housing	Moderate	M10. Decongest the area by providing more decent and affordable housing around other desirable locations.	Moderate
11.	Over-pressure on Available/		M11. More facilities and services should be provided in the area. Also decongestion of the area will be effective in this regard.	
12.	Existing facilities and services	Moderate	M12. More facilities/services should be provided and area should be decongested.	
13.	Increase in health challenges and morbidity	Major	M13. Measures such as Bagging of refuse and prompt collection and disposal should be enforced.	
14.	Threat to safety and security of living environment	Moderate	M14. Highly inflammable materials should not be allowed to be stored/kept in the market or its environs as this could undermine the safety and security of the area.	Minor
15.	Reduction in Available Housing		M15. Decongestion of the area by providing accommodation elsewhere.	Major

ENHANCEMENT

ENHANCEMENT				
1.	Rise in level of income/financial flows		E. Encourages purchase and sells and pay attractive salaries to workers in the market.	
2.	Reduction in poverty		Me. More opportunities should be provided through buying and selling. Purchases should be encouraged. More stalls should be provided also.	
3.	Increase in job opportunities		E3. More jobs to be provided and salaries paid promptly. Locals should be encouraged to exploit the opportunities that abound around the market.	
4.	Increase in the value of land and landed properties		E4. Regulation to avoid arbitrarily increase and outrageous prices regime. Land and landed properties in the environs should be rehabilitated and renovated to enhance its looks and commercial value.	
5.	Agglomeration Economics		E5. Other commercial activities and services should be exploited and explored in the area.	



Plate 1: showing Mile 1 Rumuwoji Ultra-Modern Market



Plate 2: showing lack of parking space around the market environs



Plate 3: showing Mile 1 Rumuwoji Market Environs.



Plate 4: showing the Mile 1 Rumuwoji Open Market

SOCIAL IMPACT MITIGATION AND ENHANCEMENT FRAMEWORK

This presents mitigation and enhancement measures for positive and negative impacts respectively

TABLE 8: SOCIAL MANAGEMENT PLAN

S/No	Description of Mitigation/enhancement	Action party	Monitoring parameters	Monitoring Party	Reporting	Timing
M1	Bagging of refuse to reduce/eliminate spilling and indiscriminate dumping of refuse. And shop-to-shop collection method should be adopted.	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> Types and sizes of bags to be used for refuse. Capability of refuse collection companies and measures taken to ensure effective collection. 	<ul style="list-style-type: none"> PHALGA Council RSESA RSMENV Market Representatives 	<ul style="list-style-type: none"> RSMENV RSESA 	Quarterly
M2	Regular cleaning exercises should be adopted and penalties for defaulters of sanitary laws be enforced.	The M/1 Rumuwoji market Traders Union.	<ul style="list-style-type: none"> Days set aside for cleaning exercise. Review and enforcement of sanitary laws in the area 	<ul style="list-style-type: none"> PHALGA Council RSESA RSMENV Market Representatives 	<ul style="list-style-type: none"> RSMENV RSESA 	

M3	Traffic wardens (TIMARIV and Police) be deployed to the area to forestall incidence of traffic congestion	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> * Number of Wardens from TIMARIV and police sent to the area. 	<ul style="list-style-type: none"> PHALGA Council MOT 	* MOT	Quarterly
M4	Rent on rooms, shops and office spaces should be regulated by the government.	The M/1 Rumuwoji market Traders Union.	<ul style="list-style-type: none"> Average cost of renting shops, rooms and office spaces. Availability of shops, rooms and office spaces. 	<ul style="list-style-type: none"> PHALGA Council RSESA RSMENV Market Representatives * M.U.D. 	* MUD	
M5	New and affordable houses should be provided by the government. Also landlords are to be encouraged to beef up their housing capacity by erecting storey-buildings.	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> The number of houses in the area. The number of storey buildings in the area. 	<ul style="list-style-type: none"> PHALGA Council MUD 	<ul style="list-style-type: none"> MUD MUD 	Yearly
M6	Decongestion of the area. Fortification of existing facilities and provision of more for the area	The M/1 Rumuwoji market Traders Union.	* The provision facilities and services needed for the area.	<ul style="list-style-type: none"> PHALGA Council RSMW 	* RSMW	Quarterly
M7	Security checks should be conducted frequently and more stern security measures should be adopted	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> Security measures taken to prevent crime. Frequency at which security checks are conducted. 	<ul style="list-style-type: none"> PHALGA Council Council NPF Market Representatives 	* NPF	Quarterly
M8	A reduction in the use of horns, bells, megaphone and other devices that amplify sound in the environs	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> Regulation of activities that prompts the use of megaphones. The number of users of bells. Number of cars/trucks and blaring of horn 	<ul style="list-style-type: none"> PHALGA Council Council NPF Market Representatives 	RSMENV	Quarterly
M9	The Kerbs should be rid of wares and items. Traders should restrict their display to the shops/stalls. Defaulters should be penalized/Prosecuted.	The M/1 Rumuwoji market Traders Union.	<ul style="list-style-type: none"> The clearing of Kerbs Wares and items display on kerbs 	<ul style="list-style-type: none"> PHALGA Council RSMENV 	RSMENV	Quarterly
M10	Decongest the area by providing more decent and affordable housing around other desirable locations	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> Quality of the housing to be delivered Availability of housing in the area 	<ul style="list-style-type: none"> PHALGA Council MUD Market Representatives 	MUD	Yearly
M11	More facilities and services should be provided in the area.	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> Number of facilities and services needed in the area 	<ul style="list-style-type: none"> PHALGA Council 	RSMW	Quarterly
M12	Also decongestion of the area will be effective in this regard.	The M/1 Rumuwoji market Traders Union.	<ul style="list-style-type: none"> Prompt and effective delivery of services and facilities 	<ul style="list-style-type: none"> RSMENV Market Representatives 	RSMW	Quarterly
M13	Measures such as bagging of refuse and prompt collection and disposal should be enforced.	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> Quality and sizes of bags to be provided to contain refuse. Capability of refuse collectors 	<ul style="list-style-type: none"> PHALGA Council RSMENV RSESA 	<ul style="list-style-type: none"> RSMENV RSESA 	Monthly
M14	High inflammable materials should NOT be allowed to be stored/kept in the market or its environs as this could undermine the safety of the area.	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> Keeping inflammable materials away from market/environs Taking proactive steps to forestall/avoid incidence of fire. 	<ul style="list-style-type: none"> PHALGA Council Market Representatives 	<ul style="list-style-type: none"> NPF Fire Service 	Quarterly
M15	Decongestion of the area by providing accommodation elsewhere.	The M/1 Rumuwoji market Traders Union.	<ul style="list-style-type: none"> Quality of housing to be delivered elsewhere 	<ul style="list-style-type: none"> MUD 	MUD	Yearly
ENHANCEMENT						
E1.	Encourage purchase and sells. And pay attractive salaries to	The M/1 Rumuwoji	<ul style="list-style-type: none"> Salaries actually paid to various categories of works. 	<ul style="list-style-type: none"> PHALGA Council Market 	<ul style="list-style-type: none"> PHALGA council 	Quarterly

	workers in the market.	market Traders Union		Representatives	• RSMCI	
E2.	More opportunities should be provided through buying and selling. Purchases should be encouraged. More stalls should be provided also.	The M/1 Rumuwoji market Traders Union.	<ul style="list-style-type: none"> Allocation and building of stalls and shops 	<ul style="list-style-type: none"> PHALGA council RSMCL MUD 	<ul style="list-style-type: none"> RSMCL MUD 	Quarterly
E3.	More jobs to be provided and salaries paid promptly. Locals should be encouraged to exploit the opportunities that abound around the market.	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> Job opportunities to be provided. Number of locals to be hired 	<ul style="list-style-type: none"> RSMYEG PHALGA council Market Representatives 	<ul style="list-style-type: none"> RSMYEG PHALGA council 	Yearly
E4.	Regulation to avoid arbitrary increase and outrageous prince regime. Land and landed properties in the environs should be rehabilitated and renovated to enhance its looks and commercial value.	The M/1 Rumuwoji market Traders Union.	<ul style="list-style-type: none"> Laws to regulate rent and landed value. Number of houses to be renovated. Aesthetics of buildings. 	<ul style="list-style-type: none"> PHALGA council MUD Market Representatives 	<ul style="list-style-type: none"> PHALGA council MUD 	Yearly
E5.	Other commercial activities and services should be exploited and explored in the area.	The M/1 Rumuwoji market Traders Union	<ul style="list-style-type: none"> Activities that will complement trading and Socio-economic activities 	<ul style="list-style-type: none"> PHALGA council Market Representatives 	<ul style="list-style-type: none"> RSMYEG PHALGA council 	Quarterly

ABBREVIATIONS

PHALGA: Port Harcourt City Local Government Area
 RSESA: Rivers State Environmental Sanitation Authority
 RSMENV: Rivers State Ministry of Environment
 MUD: Rivers State Ministry of Physical Planning, Housing and Urban Development

MOT: Rivers State Ministry of Transport
 RSMW: Rivers State Ministry of Works
 NPF: Nigeria Police Force
 RSMCI: Rivers State Ministry of Commerce and Industry
 RSMYEG: Rivers State Ministry of Youth Development and Employment Generation
 M/1: Mile 1
 TIMARIV: The Rivers State Road Traffic Management Authority

Social Management Plan

This presents the monitoring parameters, monitoring party, the reporting agency/ministry and the timing.

The main focus of this paper is to ascertain the social, economic, and environmental effects (both positive and negative) which the market has created and will continue to create on the various physical land-use activities. Therefore the issues are as follows:

SOCIAL EFFECTS

From the field survey, it was observed that most respondents were male. From the Age-sex Distribution, seen in table 1 it was observed that females are more than males. This has impacted on the market as most of them (females) engage in trading and other commercial activities around the market and its vicinity. There is a high influx of people from different states to the area owing to the opportunities that abound. This is evident as people of Non-Rivers origin are far higher than people from other parts of Rivers State and natives of Rumuwoji community residing in the area. This is also an indicator that the market acts as a magnet- attracting people to come and avail themselves of the immense benefits accruing to the presence of the market. This pull will lead to clustering and overcrowding of the area. Some respondents/residents work around the market while a higher degree works outside the Mile 1 Rumuwoji Market area. This shows that there exist a nexus why some of them choose to reside in the area. Proximity to their place of work informs their decision to live there. The ultra-modern market is in a good condition since it is newly built by the Rivers State Government, this can be seen on Plate 1, while the open market left at the mercy of the shop/stall owners, this is shown in Plate 4.

ECONOMIC EFFECTS

The market provides employment in the area; most respondents affirmed that they work around the area because of the immense trading and business opportunities that abound within the area. Obviously, trading has attracted people to the vicinity/environs as many people who work around there do so for some reasons related to trading. This gives credence to the fact that the rate of Daily business taking is good. This is made possible because of the number of people that troop in and out of the market daily from different parts of the state for their business transactions. The presence of the market has impacted on the cost of rents. The Monthly Rental Value per room range from N4,000- N8,000 and above, most respondents said they pay between N6,000- N6,999 and a handful pay N8,000 and above.

ENVIRONMENTAL EFFECTS

The Sanitary Condition of the place is a cause for concern; garbage is seen littered around the market as they are dumped indiscriminately. Another factor that "terrorizes" the area is noise pollution. The level of sound, which usually exceeds 60 decibels discharged in the area is outrageous. This is emitted by vehicles, loudspeakers, bells, individuals from the market etc. From the research, it was found that most of the noise generated around the market area comes from loudspeakers and megaphone. This is owing to the numerous religious activities that take place around there,

other trade-medical practitioners and auctioneers desperate to attract the attention of customers and the eventual sales. The effects of these various levels of noise are numerous on individuals as it affects health and morbidity of users of the market as well as residents of the area. Also the effect of noise can be felt on structures, loud sounds cause cracks and distortions on buildings. The survey shows that most respondents said noise affects individuals adversely. This can lead to serious health issues such as hearing impairment, hypertension, and ischemic heart disease and sleep disturbance. Parking space in this area is also a burning issue. Parking spaces are used up leaving the streets and market environs congested and fraught with traffic.

CONCLUSION

An attempt has been made in this paper to highlight perhaps, the most outstanding of all effects (positive and negative) associated with the existence of the Mile 1 Rumuwoji Market, and some socio-economic and environmental challenges emanating from the presence of the market. Also it has been revealed that most of the houses in the area are characterized by mixed uses, residential, and commercial. Also details of the various effects both positive and negative as were created by the market on its immediate environs – physical environment were discussed based on social, economic and environmental conditions.

RECOMMENDATIONS

In view of the foregoing, this paper was based on the empirical issues both qualitative and quantitative revealed from the data analysis and reconnaissance survey, Leopold Matrix of Hazards & Sensitivities and Social Management Plan which may have found out negative effects on the people and the environs. Therefore the recommendations are as follows;

1. Keeping inflammable materials away from the market/environs and taking proactive steps/measures to forestall the incidence of fire outbreak, this should be under the scrutiny of the Nigeria Police Force and Fire Service.
2. The provision of basic facilities and services to cater for residents of the area and users of the market, by the Rivers State Ministry of Works on a quarterly basis.
3. Encouragement of Land Developers and the enforcement of Rent Edict in the area to regulate the cost of rent annually in the area and should be monitored by the Rivers State Ministry of Housing.
4. Regulation of religious and trade-medical activities, the use of loudspeakers/horns and bells and other related nuisances going on in the area by the Rivers State Ministry of Environment.
5. The capability and capacity of refuse evacuation service providers should be considered before contracts are awarded, the enforcement of the use of bags to store refuse as well as the review and enforcement of sanitary laws in the area. This should be under the supervision of Rivers State Environmental Sanitation Authority.
6. The creation of more parking spaces in the area to forestall traffic congestions. This is to be monitored by TIMARIV and the Police.

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