

DESIGN PROPOSAL FOR MODERN MARKET IN SONG, ADAMAWA STATE, NIGERIA

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ABSTRACT

Disorderly form of physical erections is a common planning problem of Nigerian regional markets, poor physical arrangement, congestion, inadequate stalls and parking spaces as well insufficient; facilities utilities and services has been problems facing Song market, Adamawa state, this has hindered a crucial market environment as a medium for providing the population of the surrounding catchment areas for the effective exchange of goods and services. As well as points for sells of their local farm produce for onward transportation to urban areas. The aim of this paper is to assess the conditions of Song regional market as well as evaluating the physical characteristics of the market with the view of identifying the available facilities in market and designing a comprehensive regional modern Market for the Local Government area The data was collected by means of 180 copies of questionnaires, using purposive and simple random sampling techniques and data was also obtained through field survey, and physical observation. Google earth map and GIS tools were used in geographic data capturing, manipulation and presentation as they were capable of handling and manipulating geo-data. The GIS were used to determine the measurements of various zones in the market through digitizing the imageries. This was effectively done through the use of streamed images from Google Earth map and ArcGIS version 10.3 was also used. Data was analyzed from GIS and excel soft wires using tables, maps and descriptive statistics were also use such as frequency, percentages and mean. The results revealed overcrowding of space, inadequate provision of shops, insufficient utilities and services in the market, insufficient designated packing space, inadequate toilettes, poor waste disposal facilities, poor accessibility of roads network, inadequate water and electricity supply, in addition to deteriorated police out post in the marketplace. Planning proposals has been suggested to a new modern market to boost commercial activities in the area while the study recommended some token amount of money to be paid as sanitation fare by the traders, which will serve as revenue generation income in supporting the sanitary exercises in the market.

Keywords: Market, Shops, Road, Goods, Services

1 INTRODUCTION

Market is a geographical space that facilitates trade and enable the distribution and allocation of goods and service through mutual transaction in the society, where by parties engaged in exchange of goods and services helps in promoting production and distribution of good and services as well as improve the welfare and social life of the people [1]. Regional market plays very prominent role in the progress of socio economic and communal development of all regions. This is through facilitating exchange of goods and services, ideas, employments and income generation for the large rural population. The prominence role of regional markets in Nigeria date back during the pre-colonial era, when empires and kingdoms were recognized based on the strength of their regional markets {2}. [3] argue that regional market is a medium of empowering socio-economic development of the people, where must efficient distribution of infrastructure facilities, transportation network is required and they constituted a significant factor for the growth of both the market and the host community. While, [4] noted the primary function of

a regional market is to facilitate the movement of produce between producers and consumers. The primary goods of a regional market include storage and wholesaling of farm produce often occurs most efficiently within the framework of a developed wholesale market system. The stuffing of the produce in the market will assist in price formation and regulation for domestic produce. [5] observed that the market facilitates trade and enables the distribution and allocation of resources to the society. It allows any trade-able item to be evaluated and priced between two parties of buyers and sellers in the marketplace. Market is a dynamic institution that reproduces on the level of economic activities and prosperity of the urban and rural settlements, it also plays a significant role in economic life of the residence and influences on both social and cultural profiles of the region [6]. While [7] argue that the market is an essential link in the chain of economic distribution, where its location supports service centers in appealing for development toward the environment through shaping the institutional, commercial and residential areas by improving the livelihood of the people living around the neighboring communities of the market. The rise in trade in a market has a substantial impact on economic growth of a region through improving households' incomes [8]. The aim of this paper therefore is to assess the conditions of the market environment in Song township with a view of enhancing sustainable economic development in the study area. This would be achieved through assessing the physical characteristics of the market; as well as identifying the available facilities in market; and to design a comprehensive regional modern market for the local government. Developing Market as an institution require adequate upgrading of facilities and services in view of their contribution to the growth and expansion of the market, the town and the regions [3]. The bulk of the agricultural produce and mineral resources in Nigeria lies in the rural communities, hence the need to develop the regional markets in the rural areas for effective commercialization of these national assets crucial for national development [9]. A regional market can emerge freely in an urban environment with disposal of economic factors of production or it may be constructed deliberately by human interaction in order to enable the exchange of goods and service and creating employment opportunities for the teeming youths through community participation [10, 11]. Regional markets are categories based on size of their products or by factors of production such as labor and capital in which exchanges of good and services are carried out, when buyers are targeted through a selling process, other factors that affects the prices in the market include government regulation, taxes, subsidies, minimum wages, prices ceilings, legality of exchange, liquidity, intensity of speculation and size of goods and services [12, 13]. Market is at regional level, the commodities flow from rural catchment areas to urban node of the marketplace either on daily or weekly bases, the regional market holds at a specific interval to refill stacks of local markets in both urban and rural areas around the region [14]. The regional market may be varying in terms of several variables of commercial operations such as scale of transactions, types of commodities sold and periodic towns and cities being attracted to the market center [15]. The plan regional market empowers traders as a distinct nucleus which could eventually, allows for speedy economic growth and socio-economic development in a region [16]. The functions and value of a regional market is determined by a large market structures that accommodate both buyers and sellers to exchange goods and services and which creates information about commodities prices to attract patronage from within and outside the region [16]. [17] opines that the regional markets grow anywhere, there are large farm produce, livestock and raw materials for industries and these products are often available at cheaper prices in the regional markets [18]. Markets are social infrastructures established for the use of man to improve the economy of the society and they formed the bases socio economic indicators for regional development [19]. The Markets are established institutions operating as means of exchange for business dealings between buyers and sellers, as opposed to simple trade, a market implies the trade that is transacted with some regularity and within some recognized guidelines, with a certain amount of competition is involved to reach an equilibrium price [20]. Regional markets in Nigeria often lack physical infrastructures The lack of infrastructures also leads to the slow pace of growth of the town and cities in the nation [21]. Lack of provision of inefficient infrastructures in the markets lead to ineffective management of street trading, where many traders display their goods on the roads shoulders near the markets, this often obstruct traffic movements around the markets. In Nigeria the expansion of a regional market forms an integral part of commerce in the local area, this goes hand in hand with the growth of the town where such market is located [22] reviewed that the population threshold for locating a regional

market is between 100,000-250,000 people with minimum land area of 12-15 hectares as suitable for establishment of the regional market, most of the times the regional markets constitute the actual origin of the settlements. The market design concepts are generally relating to threshold population concentration, production and distribution of goods and services and the distance of travelling radius to the market while locational features such as lands, utility services, shops and stalls, size and terrain of the market are basic factors of operation to the markets [23]. Generally, the regional market is classified on the basis of place, time and competition while the types of regional markets include retail, wholesale or distributors, producers or raw materials markets, and stock market, the market function effectively if it is implemented on a good design standard with effective infrastructure planning [24]. The development strategy can only be achieved effectively if the clients has complied with the market planning concept and principles which are essential pillars for locating any commercial outfit is adhered to [25]. Physical and spatial characteristics of a modern Market include: sufficient distribution of identical shops and stalls, open sales spaces, operated by an individual hawkers or peddler and paved open-air market, roads, network parking spaces, toilets, electricity and water supply as well as storage facilities and security unit for effective running of the regional markets [26]. The deplorable state of infrastructures in regional markets of Nigeria has being a serious setback for implementation of the integrated regional economic development programs in the country [27]. The major planning strategy for locating regional markets including construction of standard roads network system connecting the area with the market. There are 3 categories of streets system in a regional market, they include major streets minor streets and local streets, the recommended width of major roads with the right of way is 20m, and 16m for minor roads while 14m for local commercial roads while 4m for path way [22]. Where the roads are not tarred in the market, wholesaling premises tend to be scattered throughout the market. This is neither convenient for producers delivering produce, nor for retailers or individuals who buy the produce from the retailers. However, the existence of such a dispersed pattern of market system led to imperfect market price formation in rural markets.[30] Scattered Market premises in Nigeria has created a room for the activities of middlemen who introduced a form of street trade as they always hijack produce on the streets before reaching the market [28]. The activities of these middle men in the markets have prevented the producers from growing along in their production capacity [29]. A similar situation may also emerge when an already established assembly or wholesale market has outgrown its the market site that is overcrowded due to rapid urbanization, the central market facilities cannot effectively function in the market as facilities are being overstretched due to large population of traders [30]. Although the development of integrated marketing of produce through supermarket chains is emerging in many countries, wholesale markets still account for 50-80 per cent of the overall trade in fresh produce markets in most of the developing countries hence the need for developing the Song regional market [31].

2 THE STUDY AREA

The study area covers Song Local Government area of Adamawa state, one of the 21 Local Governments areas forming the Adamawa state. Song is located between latitudes 9° 31' N to 10° 02' N of the equator and between the Longitudes 12° 11'E to 13° 05'E of the Greenwich meridian [32]. The Song town is characterised by high annual population growth of 2.9% and rapid urbanisation of about 10% [33]. Based on 2024 projected population the study area has 324,530 people with male of 161,656 and female of 162,882 populaces [34]. It lies within the derived Savannah region and it is a gateway to the state capital Yola from Maiduguri and it is about 84 km North of Yola capital of Adamawa State [32]. The strategic location of the Local Government area makes it an important route for travelers and a link between the southern and the northern part of the Adamawa state thereby boosting the region's economic power especially in business activities [35]. Song Local Government area occupies a total land area of 4,325, square kilometers. It is bounded in the south by Demsa, Girei and Fufore local government areas; in the north by Gombi and Hong local government areas while with Shelleng in the West and in the East with Maiha Local Government area. The Local Government area comprises of eleven wards and six Districts as well as three Development areas. There is a visibly mixed livelihood in the Local Government area in most of the communities' residents with mixed socio-economic situation dwell in same residential areas, both the high, medium and low-income earners dwells in same wards. Song market is both a general commodity

market and the livestock market respectively rotating as a weekly market on Sundays [35]. The mean annual rainfall of the study area is 908 mm at present, while the mean annual temperatures is 20.5 c° and relatively humidity is below 70%, and the vegetation cover is grassland, while the topography is the low lands of the Benue valley. The human activities in the region include farming, rearing, trading, attesting and fishing.

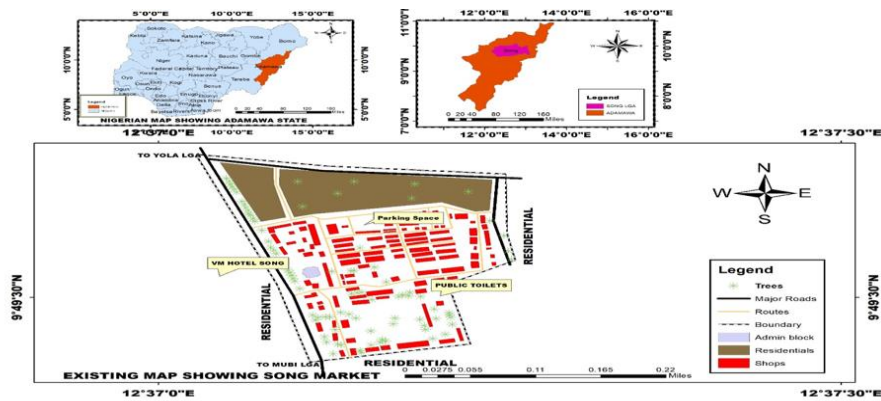


Figure 1. Map of Nigeria, Adamawa state and Song main market showing the spatial distribution of shops

3 METHODOLOGY

A total of 208 respondents were designed for this study and the respondents are the market traders in Song market. Purposive random sampling techniques was used and questionnaires were administered proportionately to 11 traders’ unions selling their goods and services in 2077 shops/stalls in the Song Market, being the study area. At each of the unit of the market, the members of the traders’ union were sample as respondents and interviews were held with the leadership of the trader’s union in the (11) units of the market being the study area. A total of 208 respondents were sampled and this is supplemented by stakeholder analysis. please see Table 1. The target population is 2077 registered traders and ten percent is used as the sample size. The questionnaires were administered only to the traders through identified trading shops with the aid of purposive simple random sampling techniques. The sampling frame include: traders and staff of Adamawa State Ministry of Entrepreneurship. The sample size was obtained in proportion to the study population using 95 percent level of confidence [36]. The secondary data include the land use maps, traders’ unions data of the market which were source from the admin office of the markets, Song market unions and Adamawa State Ministry of Entrepreneurship respectively. Data was analyzed by using GIS and excel soft wires by means of chart and maps and descriptive statistics such as frequency, percentages and mean were also use.

Table 1. Questionnaire Distribution for shop/huts and tents owners

S/n	Market units	Traders Group	Small shops	Medium shops	Large shops	Containers/ Tents	Temporary wheels	Number of stalls/Tents	Sample size	percentage
1	A	Provisions Sellers	35	15	68	149	379	646	65	31
2	B	Textiles	13	7	51	120	282	473	47	23
3	C	Cosmetics Sellers	11	7	36	74	165	293	29	14
4	D	Building materials	18	7	21	44	40	130	13	6.3
5	E	Shoes Sellers	11	4	17	36	79	147	15	7.2
6	F	Meat/Fish sellers	9	5	9	20	27	70	07	3.4
7	G	Perishable Sellers	7	6	8	18	101	140	14	6.7
8	H	Cattle market	4	2	4	10	118	138	14	6.7
9	I	Vulcanizers	3	1	1	2	3	10	01	0.4
10	J	Grinders/flour producers	3	2	2	6	0	13	01	0.4
11	K	Motorbike	0	0	3	0	0	03	01	0.4
12	L	Grains/Root /Tubers Sellers	2	2	10	0	0	14	01	0.4
Total			116	58	230	479	1194	2077	208	100

Source: [37] Adamawa State Ministry of Entrepreneurships and Field Survey 2023

4 RESULTS AND DISCUSSION

Table 2 shows that only 14% of the respondents attended primary school, while 67% had secondary school certificates, and 07% attended tertiary institutions. However, only 12% of the respondents attended only adult education. The result revealed most of the respondents had obtained secondary education certificate which assist them with basic knowledge of carrying out their businesses. The findings of study verified the result of [29] which noted that most of the traders in markets in Nigeria do not undertake education beyond the secondary education before venturing in to businesses. Table 3 shows that 87% of the respondents are supporting the plan relocation of the market, while 13 % are not supporting the repositioning of the market to a new site, based on this the, 87 percent of the respondents are of the belief on the need of relocation of the market while only 28 percent of the respondents who do not see the need of the market relocation. The high rating of the relocation opinion from the respondents may be due to the fact that of the majority of the respondents are aware of the environmental and infrastructures and services issues facing the market. Therefore, there is need for authorities involved in the relocation of the market to carried along all the stakeholders in the market before the market is fully relocated public participation entails involvement of the affected stake holders in the process of planning with aim of considering their decisions in the project planning and implementation [21]. The public participation process in implementation of development project is meaningful when the policy maker gives up some of their powers of control of the project to the community this is for effective delivery of the development project and safe guarding it if it is completed [21]. Table 4 displays 11% of the respondents held the plan for relocation of the market due to traffic congestion, while 7% of the respondents supported the relocation for lack of parking space, others are 29% that held the relocation due to inadequate ventilation and 53% who has held the relocation to ease traffic problems, congestion and pollution in the market. The majority opinion supporting the relocation affirmed that there are positive effects of market relocation on the residents. The positive effects include reduction of vehicular traffic and /human congestion, reduction of environmental pollution and easy convenience for both the buyers and sellers of goods and services as well as provision of more shops to traders. The daily activities of vehicle users in the regional in Nigeria markets constitute traffic congestion due to problems of parking facilities and lack of adequate space for loading and offloading in the markets which results into slowdown of human and vehicular movement within the markets compounds [38]. Table 5 shows that 30% of the respondents supported the relocation of the market to the new site to acquire shops, while 12% of the respondents supported relocation for quest of improve environmental sanitation, others are 25% who have held the relocation for quest of improve facilities and service and 33% has held the relocation for perception to get support in all the above mention basic needs in the new market. The majority opinion of traders supporting the relocation of the market affirmed their opinion for sought on the provision of more shops, toilets and improve infrastructural facilities such as electricity, water supply, refuse dump and storage facilities [12]. informed that post independent period in Nigeria the regional markets are moved from the inner town and cities to peripheral location away from the core residential area because of the need of large land area. [39] argue that because of the centrality of markets in Nigeria towns and cities they became major landmark of economic and social advancement, which also makes it possible for an individual to purchase whatever commodity he so desires to have in the market, the market is also serving as a tool for urban growth and development. Table 6 provided analysis of Spatial distribution of permanent shops in the market. Provisions unit occupied 19% of the market space with 123 shops; Textile unit occupied 10% of the market space with 73 shops. Cosmetics unit also engaged 21% of the market arena with 54 shops and it is the largest and the busiest unit of the market. Building materials zone occupied 19% of the market with 46 shops. Shoe and clothes unit occupied 9% of the space of the market with 32 shops. Meat and Fish Sellers unit occupied 5% of the market space with 21 shops. Perishable units occupied 6.5% of the market space with also 21 shops; Cattle zone occupied 2.4% of the market consists of 10 shops and the area is open for large number of livestock buyers and sellers and requiring more organized space. Vulcanizers occupied 2.5% of the market space with 10 shops; Corn flour producers' section with heavy grinding machineries occupied 2.9% of the market space with 13 stalls of the market Motorbike Sellers has occupied 3.0% of the market space consisting of 15 shops in the market. In total there

are 418 permanent shops in the market occupying a total of 11,980.52 Hectares in the market. [22] has advocated for the implementation of planning standards of shops requirements to cover the land mass of 30-35% of the market area, this is to provide adequate business centers to the traders in the market premises. Table 7 analysis the pattern of distribution of temporary sheds in the Market. The results display the various types of temporary sheds existing as business places in Song markets, namely: containers, tents, open air outlets and raffia mats. The result revealed that there were 474 (17%) containers or tents, while open air outlets constitute 1890 (70%) sheds and Raffia mats accounts for 364 (13%) of the temporary sheds in the market and in overall there are total of 2,728 temporary sheds in the market and from these results it is observed that the temporary sheds are more than the permanent stalls in the market and this is because of the inadequacy of shops in the market. There is lack of sufficient organized stalls in the market and the temporary shed areas are scattered in all over the market as they are more of bulking points for agricultural commodities, this result verified the finding of [1] that inadequate distribution of organized shops in the regional market led to illegal construction of temporary shops and the attachment of shops towards the roads within the market without the approval of the authorities. As a result, the environment of the market becomes untidy without taking into consideration safety, comfort and conveniences of the both the sellers and buyers. Table 8 display the analysis of distribution of various facilities and services in the market there are 2 restaurants in Song Market and with 5 toilets out of which 4 are working, there is 1 motorized borehole and 1 transformer connecting the market to the national grid others are 1 administrative block and 2 mosques with a non-functional dilapidated security outpost in the market. The 2 private restaurants in the market are run by individuals who provides some local ditches to the traders at exorbitant prices. The type of toilet system available in the markets are Pit latrine; however, some individuals resort to using bushes to solve their problems because of the irregular sanitary conditions of the pit latrines. The sources of water in the markets is mainly from borehole water supply, but the epileptic power supply in the market rendered the water supply to be non-regular and inadequate in the market. The water facilities that are presence include; boreholes and Pipe borne water. [40] analyses the major issues affecting regional markets in developing countries including poor storage facilities, traffic congestion, insufficient facilities, utilities and services as well as poor environmental management. [1] argued for availability of, transportation linkages and efficient public utilities and services in the market in order to encourage patronage of the market as well as supporting sustainable commercial growth in the market. Table 9 provided the analysis of distribution pattern of solid waste collection system in Song markets. The survey indicated that there are 5 controlled disposal sites and 2 stands by containers with capacity of 448 m³ and they are placed at designated strategic points in the market for disposal of solid waste by the respondents in their various trading zones. While there are 12 different illegal dump sites as some traders dumped their refuse at open drainages in the market. While 30 respondents collect and dispose their refuse at 100kg sacks each. in the difference areas in the market. The solid waste generated from difference zones of the market including organic waste, paper, metals, glass, polythene bags and /carton waste, sacks, medical and chemical waste matter. [41] argue for recycling of solid waste in developing countries to control floods and environmental degradation, the profit-driven waste management strategy has general environmental conservation measures such as, saving the cost of waste disposal and creating resourceful production channels. Advancements in solid waste recycling provides various efficient and low-cost materials for major construction and other engineering applications. similarly, [42] deliberated for privatizing of solid waste management aim at sustainability in service coverage and recycling the solid waste into energy generation for electricity in the developing counties. Table 10 shows the analysis of the parking survey, the result indicate that private cars and open vans increased from 142 in the morning to 154 in the evening while trucks and lorries increased from 70 in the morning to 77 in the evening. others are 45 tricycles parked in the morning increased to 52 in the evening. Whereas a total 257 vehicles parked in the morning and has increased to 283 in the evening with no enough spaces for parking. most of the vehicles parked along the highway obstructing traffic. The vans and lorries do bring and take away goods to and from the market on a weekly routine while tricycles parked daily around the market with no provision for parking lot in the market, [12] observed that the parking space standard for a regional market design is 20-22% of land cover for the entire market. [1] argue that lack of enough parking lot pushes the motorist to parking their vehicles

towards the roads, around the market location. As a result, they obstruct the traffic flow without taking into consideration safety, comfort and conveniences of the both the sellers and buyers. Parking is one of the major problems facing regional market due to the ever-increasing vehicles in the markets. The availability of less space in the regional markets has increased the demand for parking lot, especially in the periodic market days and this has great economic concern to the markets. However, the minimum parking area requirements for all new market design are normally being considered and implemented [43]. As shown in Table 2, only 14% of the respondents attended primary school education, while 67% had secondary school certificate, and 07% attended tertiary institution. However, only 12% of the respondents attended adult education.

Table 2. Educational background.

Status	No. of respondents	Percentage of respondents (%)
Adult education	25	12
Primary education	29	14
Secondary education	140	67
Tertiary education	14	07
TOTAL	208	100

Table 3 shows that 180 respondents representing 87% of the respondents supported the relocation of the market, while 28 respondents representing 13 % have not supported the relocation of the market to a new site.

Table 3. Perception on positive the Relocation of the Market in Song

Opinion for relocation of the market	Frequency of respondents	Percentage (%)
Yes	180	87
No	28	13
Total	208	100

Table 4 shows 11% of the respondents supported the relocation to ease traffic congestion, while 7% of the respondents supported relocation for lack of parking space, others are 29% who have held the relocation to inadequate ventilation and 53% has held the relocation to ease all the problems listed above in the market.

Table 4. Relocation positive effect on residents

Impact for relocation	Frequency of respondents	Percentage (%)
Ease Traffic congestion	20	11
Ease parking problems	12	07
Ease environmental pollution	52	29
All of the above	96	53
Total	180	100

Table 5 shows 30% of the respondents supported the relocation to new site to ease purchase of land for shops, while 12% of the respondents supported relocation for the available parking lot, others are 25% who have held the relocation to secure space to build shops in the new sites and 33% has held the relocation to acquire all the basic needs listed above in the new market. Good location of a Market strengthens the economic base of a town and also helps to sustaining n the tax base of the state. The activities are useful measure of centrality and factors that act as the focus of rural development [43].

Table 5. Relocation positive effect on traders

Impact for Reallocation of the market	Frequency of respondents	Percentage (%)
Provision of shops	54	30
Improve environmental sanitation	22	12
Improve services and utilities	46	25
All of the above	60	33
Total	180	100

Table 6 provided analysis of Spatial distribution of shops in the market. Provisions unit involving with sells of the daily household supplies and needs occupied 19% of the market space with 123 shops; Textile unit occupied 10% of the market space with 73 shops. Cosmetics unit also occupied 21% of the market arena with 54 shops, it is the largest and the busiest unit of the market. Building materials occupied 19% of the market with 46 shops. Shoe/clothes unit occupied 9% of the space of the market with 32 shops. Meat/Fish Sellers unit occupied 5% of the market space with 21 shops and the unit is one of the dirtiest parts of the market. Perishable units occupied 6.5% of the market space with also 21 shops; the unit is closely positioned to the butchers with equally as one of the un hygienic section of the market. Cattle zone occupied 2.4 % of the market consists of 10 shops and the area is open for large number of livestock buyers and sellers and requiring more space. Vulcanizers occupied 2.5% of the market space with 10 shops; and they are located along the entrance of the market. Corn flour producers' section with heavy grinding machineries occupied 2.9% of the market space with 13 stalls of the market Motorbike Sellers has occupied 3.0 % of the market space consists of 15 shops in the market. In total there are 418 permanent building shops in the market occupying a total of 11,980.52 Hectares in the market.

Table 6. Spatial distribution of trading zones in the market

S/n	Market /Zones	units	Traders Group	Small shops	Medium shops	Large shops	Total number of /stalls	Percentage of stalls	Land cover (Hectares)	Percentage of Land area covered
1	A		Provisions Sellers	35	15	68	123	29	2,324.28	19
2	B		Textiles	13	7	51	73	17	1,134.40	10
3	C		Cosmetics Sellers	11	7	36	54	13	2,509.34	21
4	D		Building materials	18	7	21	46	11	2,433.12	19
5	E		Clothes/Shoes Sellers	11	4	17	32	08	1,079.43	9.0
6	F		Meat/Fish Sellers	9	5	9	21	05	706.37	5.0
7	G		Perishable Sellers	7	6	8	21	05	809.54	6.5
8	H		Cattle market	4	2	4	10	2.4	307.14	2.4
9	I		Vulcanizers	3	1	1	10	2.4	312.54	2.5
10	J		Grinders/flour producers	3	2	2	13	3.1	364.36	2.9
10	K		Motorbike Sellers	0	0	3	15	3.6	398.73	3.0
			Total	114	56	221	418	100	11,980.52	100

Source:[37] Adamawa State Ministry of Entrepreneurships and Field Survey, 2023.

Table 7 reveals the various types of temporary sheds that exist in the song markets, which are namely: containers or tents, Open air outlets and raffia mats. The result revealed there were 474 sheds (17%) are containers/tents, while open air outlets constitute 1890 sheds (70%) and Raffia mats sheds accounts for 364 sheds (13%) of the temporary sheds in the market and in overall there is a total of 2,728 and from the analysis it is observed that the temporary sheds dominated the shop/stall type in the market.

Table 7. Distribution temporary of Sheds/containers in the Market

s/n	Description	Small	Medium	Large	Total	Percentage
1	Containers/ Tents	315	89	70	474	17
2	Open air outlets	890	950	50	1890	70
3	Raffia mats sheds	190	102	72	364	13
	Total	1,595	1,141	192	2,728	100

Source; Field survey 2023

Table 8 shows the distribution of various facilities in the market there of 2 restaurants operating in containers and 5 toilets out of which 4 are working, there are 1 transformer and 1 motorized borehole connecting the market with national grid and water supply respectively and a non-functioning dilapidated security outpost and also an administrative block with 2 mosques.

Table 8. Distribution of facilities and services in the market.

S/n	Type of facilities	Types of facility	Number of facilities	Functional	Non-Functional
1	Restaurant	Containers	2	2	0
2	Toilets	Building	5	4	1
3	Water supply	Motorized borehole	1	1	0
4	Power supply	Transformer	1	1	0
5	Security outpost	Building	1	1	0
6	Admin office	Building	1	1	0
7	Mosque	Building	2	2	0
	Total		13	12	1

Table 9 shows the analysis of the parking survey, the result indicate that private cars and open vans increase from 142 in the morning to 154 in the evening while truck and lorries increase from 70 in the morning to 77 in the evening. others are 45 tricycles parked in the morning increased to 52 in the evening. Whereas a total 257 vehicles parked in the morning and has increased to 283 in the evening with no enough spaces for parking. most of the vehicles parked along the highway obstructing traffic. The vans and lorries do bring and take goods to and from the market on a weekly routine while tricycles parked daily around the market with no provision for parking lot in the market, [22] observed that the parking space standard for a regional market design is 20-22% of land cover for the entire market.

Table 9. Parking survey in the market day and size of parking lots

Day	Vehicle Type	Time			Size of Parking Lot
		9am-11am	1pm-3pm	4pm-6pm	
Sunday 17/12/2023	Private Cars //Open Vans	142	160	154	2.135m ²
	Trucks/Lorries	70	67	77	4.568m ²
	Tricycle (Keke Napep)	45	19	52	No provision
	TOTAL	257	246	283	

Table 10 shows the distribution of solid waste collection system in Song market. The survey indicated that there are 5 controlled disposal sites and 2 stands by containers with capacity of 448 m³ are designated at strategic points in the market for disposal of solid waste by respondents in their trading zones. While there are 12 different illegal dump sites as refuse also being dumped at open drainages in the market. While 30 respondents collect their refuse at 100kg sacks each. in the difference areas in the market before disposal to refuse dumping site. In view of the outcomes of this study revealing insufficient stalls, congestion of space, inadequate lands for construction of both shops and infrastructures, inadequate utilities

and services, lack of standard packing space, inadequate toilets, poor waste disposal services, lack of efficient drainage system, poor accessibility of roads network, inadequate water and electricity supply in the Song market. A planning proposal for relocation and construction of a modern market has been designed for the Song township (Figure2), this is to enhance the living conditions of the traders and residents in the market and to boost commercial activities in the region.

Table 10. Environmental control waste disposal in song Market

Characteristics	Frequency	capacity
Disposal at simple controlled site	5	undefined
Waste collection containers	2	448m ³
Disposal at illegal dump site/ drainages	12	undefined
Disposal at sacks	30	100 kg
Total	180	100

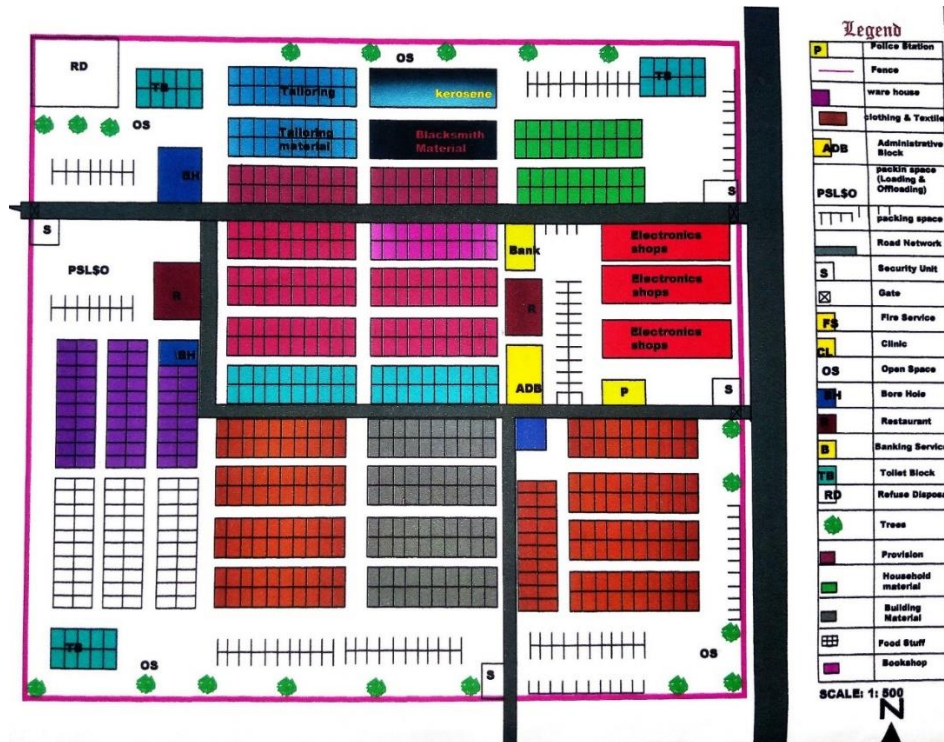


Figure 2. Design proposal of Song regional modern market.

5 CONCLUSIONS

The study has established the negative environmental condition and inadequacy of shops and facilities in Song Regional market. although the markets receive patronage from within and outside Adamawa State, however the facilities provided for the traders are grossly inadequate. The limited infrastructures that are existing in the market are not in good condition and they lack maintenance culture, other problems affecting the market are environmental congestion of space, inadequate space for construction of shops, insufficient utilities and services in the market, lack of designated packing space, inadequate toilettes, poor waste disposal facilities, lack of efficient drainage system, poor accessibility of

roads network, inadequate water and electricity supply, in addition to a deteriorated police out post in the marketplace. Planning proposals has been suggested to relocate the market to a new site in order to enhance the living conditions of the traders and residents in the market and to boost commercial activities in the area (Figure 2) while proper and affordable stalls should be provided to the traders who display their goods in the temporary sheds. And the streets There is the need to promote maintenance culture in the new market while the study recommended some token amount of money to be paid as sanitation fare by the traders, which will serve as revenue generation income in supporting the waste management exercises in the market. The Adamawa State government and Song Local Government council should expedite action in the construction of the new modern market. While the trader's union as stake holders should be involve in the relocation and distribution exercise of the shops and space new market.

REFERENCES

1. Okosun, S. E. (2017). Market Condition and Regional Development Planning in Ekiti State, South Western Nigeria. *Journal of Marketing and Consumer Research*, vol. 32, pp. 29-36.
2. Araujo, L. and Mason, K. (2021). Markets, infrastructures and infrastructuring markets. *Journal of AMS Review*, vol. 8, no. 2, pp. 229-249.
3. Özden-Schilling, C. (2016). The infrastructure of markets: From electric power to electronic data. *Journal of Anthropology*, vol. 3, no. 1, pp. 68-80.
4. Akinyode, B.F., Khan, T.H., Ahmad, A.S.B.H. and Udin, A.B. (2016). Impact of Tertiary Institutions on House Rental Value in Developing City. *Procedia-Social and Behavioral Sciences*, vol. 257, no. 172, pp. 323-330.
5. Onyinyechukwu. O.H. and Adewale, D.O. (2021). Regional Market Integration: A Panacea to Increasing Productivity and Income in Nigeria. *Journal of Agricultural Economics, Environment and Social Science*, vol. 7, no. 1, pp. 139-151.
6. Labonne, J., Biller, D. and Chase, R. (2007). 'Inequality and Relative Wealth', Do they matter for trust? Evidence from poor communities in the Philippines. *Social Development Papers, Community-Driven Development, Paper No. 103. Washington, DC: World Bank*, pp. 3-5.
7. Tukur, A. L. and Zemba, A. A. and Ezra, A. (2020). Basics Geographic information on Local Government Areas of Adamawa State. In Adebayo, A.A., Tukur, A. L, and Zemba, A. A. (Eds.), Second edition, Adamawa State in Maps, Yola, Nigeria. *Paraclete publication*, pp. 14-15.
8. Ajetunmobi R.O. (2010) Aspect of Economic Transformation in Lagos-Economic Activities in Lagos State. *The Evolution and Development of Lagos State, article index, Lagos Nigeria*, 3p.
9. Omole, F.K., Yusof, L.Y. and Baki. A.I. (2013). Analysis of market typology and functions in the development of Osun State Nigeria. *International Journal of Development and Sustainability*, vol. 3, no. 1, pp. 59-69.
10. Basorun, J.O. (2003). Basic Element of Urban and Regional Planning: Shalom Publishers, Akure. Districts in Nigeria. *Journal of Humanities and Social Science*, vol. 22, no. 2, pp. 93-99.
11. Leke O. (2009) Challenges of Sustainable Physical Planning and Development in Metropolitan Lagos. *Journal of Sustainable Development*, vol. 2, no. 1, pp. 159-169.
12. Akinyode, B.F. and Khan, T.H. (2013). Evaluation of Housing Provision during the Last Two Decades in the Context of Nigeria: A Case Study in Ogbomosho. *International Journal of Humanities and Social Science*, vol. 3, no. 15, pp. 204-215.
13. Adedipe, B.O. (2003). First Foundation of Regional Planning, FECOD Commercial Enterprise, 34 Lesile Road, Ilaraja, Ogun State, pp. 5-7.

14. Glucker, A.N., Driessen, P.P.J., Kolhoff, A. and Runhaar, H.A.C. (2013). Public Participation in Environmental Impact Assessment: Why, Who and How. *Environmental Impact Assessment Review*, vol. 43, pp. 104-111.
15. Pena, S. (2000). Regulating Informal Markets: Informal Commerce in Mexico City. *International Journal of Sociology and Social Policy*, vol. 20, no. 10, pp. 37-67.
16. Ekong, C.N. and Onye, K.U. (2016). A Framework for Sustaining Rural Development Program: Evidence from Micro-Panel Data in Nigeria. *Developing Country Studies*, vol. 6, no. 2, pp. 14-31.
17. Tomori, M.A. (2011). Ibadan Metropolitan Area and the Challenges to Sustainable Development, pp. 2-4.
18. Omole, F.K. (2009). Analysis of Some Factors Affecting Market Patronage in Osun State Nigeria. *Asian Journal of Marketing and Consumer Research*, vol. 1, no. 1, pp. 24-31.
19. Omole, F.K. (2002). Analysis of Market Typology and Functions in the Development Osun State, Nigeria. *International Journal of Business and Common Market Studies*, vol. 1, pp. 163-176.
20. Durand, R. and Khaire, M. (2017). Where do market categories come from and how? Distinguishing creation from category emergence. *Journal of Management*, vol. 43, no. 1, pp. 87–110.
21. Taiwo, D.O. and Akinyode, B.F. (2017). Implications of Street Trading Activities on the within Central Business Districts in Nigeria. *IOSR Journal Of Humanities and Social Science*, vol. 22, no. 2, pp. 93-99.
22. Obateru, R.I. (2003). Land Subdivision Basics. *Penthouse Publication Lagos Nigeria*, pp. 10-15.
23. Sada, P.O. and McNulty (1978): The Market Traders in the City of Lagos. *Urbanization and Problems in Nigeria*. Ibadan University Press, pp. 63-80.
24. UN-Habitat (2011). Taking forward the right to the city: The “urban advantage” for all. State of the World’s Cities 2010/2011 Bridging the Urban divide. Nairobi: Kenya. UN-Habitat, pp. 10-12.
25. Jellberg, H., Hagberg, J. and Cochoy, F. (2019). Thinking Market Infrastructure: Barcode Scanning in the Grocery Retail Sector, 1967–2010. *Journal of Infrastructure*, vol. 62, pp. 207-232.
26. Omole, F.K. (2004). Transportation and inter-markets linkages in Osun State, Nigeria. *Journal of Environmental Science*, vol. 3, no. 1, pp. 171-182.
27. Omole, F.K., Owoeye, J.O. and Ogundiran, A.O. (2012). Towards efficient transport connectivity for sustainable market patronage in Nigeria. *International Journal of Developing Societies*, vol. 1, no. 2, pp. 88-96.
28. Liman, A. (2021). Socio-economic Impact of Street Trade in Jimeta- Yola Adamawa State, Nigeria. *FUTY Journal of the Environment*, vol. 15, no. 1, pp. 15-25.
29. Faircheallaigh, C. (2010). Public participation and environmental impact assessment: Purposes, implications, and lessons for public policy making. *Environmental Impact Assessment Review*, vol. 30, no. 1, pp. 19-27.
30. Abegunde, A.A. and Ebahichalu, N. (2008). Commercial Land use Invasion of Residential Zones of Ibadan City, Nigeria. *Journal of Geography and Environmental Planning*, vol. 4, no. 1, pp. 1-9.
31. Kehinde, C.J. (2002). Basic Principle and Method of Urban and Regional Planning, *National Library of Nigeria Cataloguing in Publication Data*. Lagos, Nigeria, pp. 5-7.
32. Google map (2023). Goagle earth explorer website via <https://earthexplorer.usgs.gov/>. Assessed on 24th August, 2023.

33. NPC (2023). Projected Population and Housing Data of Song Local Government Area in 2023. Yola, Nigeria, pp. 5-7.
34. United Nations (2024). Department of Economic and Social Affairs, Population Division, pp. 2-3.
35. Galtima, M., Mubi, A.M. and Anjorin, O.J. (2020). Markets and marketing system in Adamawa State. In Adebayo, A.A. and Tukur, A. L and Zemba, A. A. (Eds.), Second edition, Adamawa State in Maps, Yola, Nigeria. *Paraclete Publishers, Yola, Nigeria*, pp. 151-163.
36. Krejcie, R.V. and Morgan, D.W. (1970). Determining Sample Size for Research Activities. *Educational Psychological*, vol. 30, pp. 607-610.
37. Adamawa State Ministry of Entrepreneurships (2023). Adamawa State Ministry of Entrepreneurships Commerce and Business Data in Song Market, Yola: Nigeria, pp. 3-4.
38. Akinyode, B.F., Odunola, O.O. and Adetunji, M.A. (2018). Public Perception on Relocation of Wazobia Market in Ogbomoso North Local Government Area, Oyo State, Nigeria. *World Journal of Social Science Research*, vol. 5, no. 3, pp. 242-257.
39. Taiwo, J.N. and Agwu, M.E. (2016). Problems and Prospects of Poverty Alleviation Programs in Nigeria. *Journal of Environment and Social Science*, vol. 7, no. 1, pp. 139-151.
40. Olorunnimbe, R.O., Giwa, O.M. and Osifodurin, E.O. (2021). Examination of the Effects of Inadequate Parking Infrastructure on Traffic Flow in Ikeja Central Business District, Lagos Metropolis. *Journal of Economics and Development*, vol. 12, no. 14, pp. 96-108.
41. Osemeahon, S.A., Akinterinwa, A., Fasina, A.E., Andrew., F.P., Muhammed, H.S., Semiu, A., Kareem, S.A., Reuben, U., Onyebuchi, P.U., Olubukola., R. and Adelagun, O.A. (2024). Reduction of polystyrene/polyurethane plastic wastes from the environment into binders for water-resistant emulsion paints. *Heliyon Journal*, vol. 10, pp. 1-13.
42. Liman, A. and Ngah, I. (2015). Appraisal of Municipal Solid Waste Management (MSWM) in Jmeta -Yola Adamawa State of Nigeria. The Need for Innovative, Strategies. *Journal Teknologi*, vol. 1, pp. 1-6.
43. Oyedepo, J.O. (2016). Performance Analysis of off-Street Parking around the Central Business District of South -West Nigeria. *The Journal of Sustainable Development*, vol. 16, no. 1, pp. 91-105.