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Challenges of Road Transportation on the Patronage of Periodic Markets in ASA Local Government Area, Kwara State

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Abstract: *The goal of any transportation deficiency is lack of mobility, limited mobility and mobility purchased at a very high social and economic cost. The study examines the challenges of road transportation on the patronage of markets in Asa Local Government Area (LGA), Kwara state. It is anchored on the concept of transport poverty. Using a purposive multi stage sampling techniques, the five periodic markets in the entire LGA (Aboto, Alapa, Eyenkorin, Mondela and Otte) were identified and a convenient sampling method was adopted to pick the marketers who patronize the markets. Subsequently, 280 out of 5,600 which constitute 5% of the entire frame was proportionally taken from the identified periodic markets: Aboto (64), Alapa (66), Eyenkorin (61), Mondela (38) and Otte (51) Markets. The quantitative analysis was done using Level of Patronage Index (PI), Challenges Index (CI) and Chi-square at p=< 0.05. The result showed that poor condition of roads in the study area had negative effects on the market activities and relatively on the entire local community source of income. The mode of transportation (Taxi:59.6%, Bus:18.5%, mini truck: 10.4% lorry: 3.2% and others: 8.3%); average level of patronage is 3.48 while the five markets faced the challenges of poor patronage due to high transportation fare (3.99), long waiting at bus-stop (3.76), poor access (3.53) and among others. The level of patronage and challenges faced by traders and customers in accessing the periodic markets. There is no statistically significant variation in the patronage level in periodic markets (48.000). The periodic market had been negatively impacted by low patronage which as a results of bad transportation infrastructure. Therefore, adequate attention should be given to transportation facilities and maintenance to improve the movement of people and goods to the markets.*

Key words*: Road Transport means, mobility poverty, Periodic market, Market patronage, Transport challenges*

I. Introduction

In Sub-Sahara Africa, road transportation is the commonest and most extensively used means of mobility (SSATP, 1999). This is the reason why road transport mode is popularly referred to as the engine and wheel of the society (Olakunori, 2012). When or if the mobility apparatus is not adequate, the economy of such a society suffers and becomes unattractive to investors. On the importance of transportation, Carapetis *et al*. (1984) pointed out that an adequate and reliable transport system is essential for the social and economic development of rural areas, especially in the developing world. It is one of the indices applicable to measuring the development of any growing society. The means within mode of road transport infrastructure in Nigeria accommodate trucks, buses, cars, tricycles, bicycles, and even animals in moving people, goods, and services

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from one location to another (Anyanwu et al,1997, Onokala & Olajide, 2020). The functionality of any of the mentioned means depend on the condition of the road's infrastructure.

In 1926, the road system of Nigeria was classified into three major types Federal Trunk A Roads, Regional/State Trunk B Roads, and Provincial/Local Government Trunk C Roads. Presently, Nigeria has a total of 193,200km of roads made up of 34,123km of Federal Trunk A Roads, 30, 500km of State Trunk B Roads, and 128,577km of Local Government Trunk C Roads (Onokala & Olajide, 2020). Unfortunately, the local road (i.e. Trunk C roads) that is the longest, seems to be neglected. This may not be unconnected with its existing inadequate road transportation system in such a region. According to researchers, about 23 per cent of the national roads were in a deplorable state in 1985. This rose to 30 per cent in 1991, 50 per cent in 2001, 80 per cent in 2010, and dropped to 70 per cent in 2024 (Onakola & Olajode, 2020; Oku, 2024). To place this assertion in the right perspective, the existing road transportation in Nigeria is faced with countless numbers of challenges. These are lack of motorable road links, the absence of organized public transport, and a low car ownership rate. This is in sharp contrast to the situation in developed countries, such as Britain and the USA, where the car ownership rate is significantly higher in rural areas than in urban centres due to a lack of public transportation in the region (Mosley, 1979).

One of the places people frequently visit is the market, while the rural areas are particularly known for this. However, the prevalence of deteriorating road conditions in the rural regions poses a formidable challenge to market accessibility and convenience (Smith et al., 2019). For instance, the basic economic model states that periodic marketing result whenever a firm's threshold exceeds the range of a good, or whenever the minimum number of customers required to support a firm is less than the number of potential customers living within the distance a customer will travel to purchase that good (Stine, 1972; Alan 1972 & Alao 1988; Ehinmowo, & Ibitoye 2019). Also from the view of Burgess (1925) and Hoyt's (1939) sector theory and Harris and Ullman's (1945) transport and land use have inextricable link. This implies that the transportation system may influence the level of patronage of places such as the market. Direct observation shows that some periodic markets are no longer in operation or relocated due to a lack of adequate access to the market. Periodic market and rural transportation constitute a strategic part of infrastructural planning. Similar studies on facilities have been documented by Jimoh & Abdullahi (2022), Umar, J., & Oriri, O. (2023). Jimoh, U. U., & Olagunju, D. K. (2022) Jimoh (2022), Jimoh, Jimoh, U., & Falola, O. (2018). Jimoh, (2021), Jimoh, & Famewo (2022), Jimoh & Famewo (2023), Jimoh & Ayomide (2022) Jimoh & Otokiti (2022).

II. LITERATURE REVIEW

2.1 Concept of Mobility Poverty

Generally, transportation is the physical movement of people and goods from one place to another (Ahukannah *et al*, 2003). According to Falani (1978), every human being's everyday activities are impacted by transportation. As a result, people must travel for a variety of reasons, including employment, pleasure, professional services, buying and selling, socializing, and moving agricultural goods from one location to another. A consensus definition of "mobility poverty" was adopted by the European Parliament, which refers to households that have limited access to affordable public or alternative forms of transportation essential for meeting their basic socioeconomic needs, or those with high transportation costs (European Parliamentary Research Service, 2022). Relating this concept to the present subject, both traders and customers face immense challenges. First, for traders, bad roads may lead to increased travel times and higher operational costs due to vehicle damage and fuel consumption. It can also lead to the spoilage of perishable goods before they reach the market, resulting in significant financial losses. In Nigeria, rural residents often face the challenges of financial and geographic inaccessibility, which is characterised as a state of mobility poverty (Ikporupo, 2007). These costs are often transferred to the consumer, resulting in inflated product prices. Coyle, Novack, Gibson, and Bardi (2011) stated that "the demand for freight transportation is usually dependent upon demand for a product in another location." Secondly, in effect, the high cost of transport translates to the higher cost of products, which may be sufficient to discourage a consumer from patronising and reduce the frequency of visitation to a facility. To better hit the nail on its head, such persons can be said to be experiencing mobility poverty. According to

Kamarudin, & Sinniah (2021), there are two main purposes of the provision of public transport, which are: served by patronage and served by coverage. These two purposes have their own goals, whereas the patronage aims to create income and have their own agenda, while serving for coverage is mainly to ease the daily commuters. As a result of these challenges, commuters use different modes of transportation to reduce cost and travel time. Rodrigue et al (2006) stated that "Transport modes are the means by which people and freight achieve mobility" through land, air or sea. The other modes are via pipelines (for gas/oil transfer), cable (internet, energy supply), and space (satellite). The land transportation from which road transportation is the most common and most extensively used because of its short distance characteristics, affordability and availability (Rodrigue, 2021). It involves the use of bicycles, motorbikes, carts, cars, buses, lorries, trailers, tankers, etc., in moving people, goods and services from one location to another where they are needed (Anyanwu et al, 1997). Despite the obvious issues surrounding road transportation, it has become imperative to empirically examine the determinants means within mode of road transportation.

2.2 Level of Patronage

Generally, market, as used in this study, connotes an authorized public place where buyers and sellers of commodities meet for transaction at an appointed time (Omole, 2002; Hodder et al, 1969). Market centers are fundamental to the economic, social, cultural, religious and political life of people. This has been unequivocally presented by Onyemelukwe (1974), Adalemo (1979), Sada et al. (1979), and Omole (2012), among others. Agbola *et al.* (2024) highlighted four types of markets: international, national, regional, and local markets. For any of the above-mentioned market types, it can either fall under a daily or a periodic market. A daily market is operational daily, while a periodic market is a type of market that takes place at a specific location and time interval, usually less frequently than daily markets (Omole, 2012). Kithuka (2019), Aithal (2018), Ikechukwu & Innocent (2018) and Eben-Saleh (1999) distinguished between daily and periodic markets. The significance of many markets can be measured by the level of patronage.

Okoko & Fasakin (2007) observed that the quality of people's economy and social inclination relies on efficient, comprehensive, and coordinated multimodal transportation infrastructure capable of facilitating the delivery of services and products. For example, Benin City's well-developed road network presents a variety of transportation challenges, notably traffic conflict and impedance at locations of trading activities (Ayo-Odifiri, 2017). Several markets are located in the city patronage and distribution pattern of the market impacts traffic flow. The author used correlation analysis to confirm the relationship between accessibility to the market and market patronage variables in the study area. This is to say that, when accessibility is high, the level of patronage will also be high. Omole (2012) found that distance and type of market significantly influenced market patronage, while seven other factors did not. While in the study of Bavornluck (2012), price, place and promotion factors are the first three major determinants to patronage of low-cost airlines. In the study of Oliseh et al (2015), their findings revealed that service quality, atmospheric quality, perceived value, environment, consumer demographics and modernity are significant factors that influence the behaviour of customers towards patronizing the fast-food restaurants. In a study conducted in Enugu metropolis, Nigeria, product quality has a significant influence on consumers of retail stores (Nnamani et al, 2024). It has been clearly stated that patronage is a dependent variable, while none of the above variables directly discussed the mode of transportation as a determining factor for changes in patronage, especially in periodic markets. This is imperative in the planning and location of a market in any community.

2.3 Transportation Challenges

In specific terms, transportation challenges that can affect patronage to places are limitless. Ibok & Otop (2021) examined the operational challenges to passengers' patronage of inland waterways transportation along the Calabar-Oron corridor. The duo concluded that such challenges led to poor development of the community. Obed (2013) discovered that the poor management and enforcement of the Cabotage Act 2003 and amended in 2007 as one of the major factors that affect patronage and relatively cause the setbacks in the growth of inland water transportation. There is, therefore, a necessity to investigate the means within the mode of road transportation in local settings. According to Adesoji (2011), one of the major challenges faced by operators or potential operators of public transport is how to raise funds to provide, maintain and sustain satisfactory

services, stating that operators generally run their services at a considerable loss, while private operators are relatively financially viable. In terms of environmental challenge, raised issues on congestion and fuel quality, while recommending the removal of Lead from petroleum. In terms of infrastructural deficit, Ogwude (2011) pointed out that the issue of narrow roads increases congestion in Nigeria, making the use of larger buses more difficult as a means of relieving traffic congestion. Burgess (1925) and Hoyt's (1939) sector theory and Harris and Ullman's (1945) planned the land uses with higher consideration for the transportation network. Any attempt to undermine transportation in landuse planning can lead to efforts in futility. Despite the shared formula of road in the country: 17% for Federal Government, 16% for State Government, and 67% for Local Government, there is still evidence of overruns and conflicts in the provision and management of urban transport infrastructure and services and in the enforcement of traffic laws and regulations (Iorwuese Viashima, 2011). Facing these challenges, the rural areas' economic development may be a mirage, and studies in this area are absolutely necessary to inform the public and private sectors towards positive actions.

III. Materials and methods

3.1 The Study area

Asa Local Government Area is located in Kwara state (8.3830° N, 4.5719° E), North-central Nigeria, and has the city of Afon as its headquarters. Asa local government area covers a total area of 1,286 square kilometers and a population of 126,435 as of the 2006 census. It features two distinct seasons, the rainy and dry seasons.

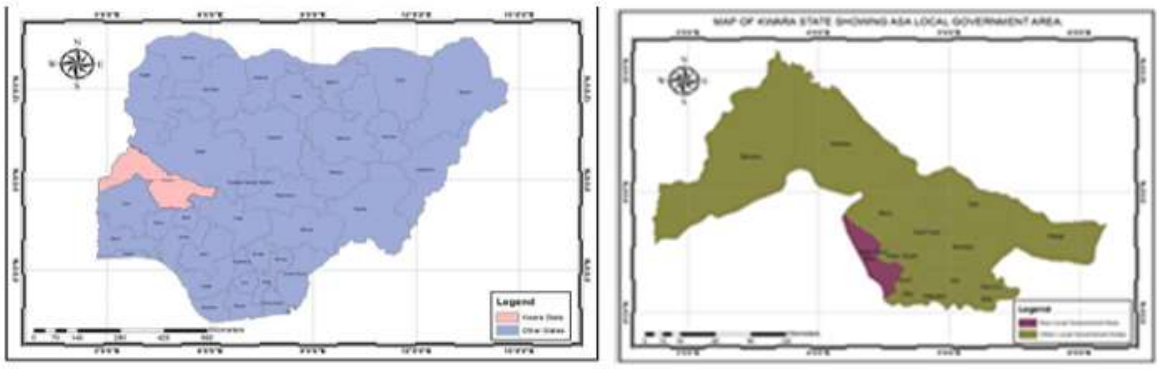

Figure 1: ASA within the context of Kwara state and Nigeria

It is characterized by a mix of urban and rural areas, with varying levels of infrastructure. The area is known for its diverse population and economic activities, including the presence of periodic markets. The choice of Asa Local Government as the study area is based on three main factors: Firstly, it provides a representative sample of a local government area within Kwara State, allowing for insights that can apply to similar regions within the State. Secondly, a local Government system offers a suitable avenue for rural-urban transformation by changing the agrarian community to commercial scene through its road transport network and market as means of attraction (Elenwo & Weje, 2019). Daily markets are not common in this setting due to lower threshold. Many of the periodic markets which are common in this context operate as daily markets, though they have a higher threshold on special days. For example, Ibaka market in Akungba-Akoko, Ondo state, Owode market in Ede Osun state and the Ojoo Market in Ibadan, Oyo State, are still used as periodic markets, as well as a daily market; the only difference is that there will be varieties of commodities on market days (Ehinmowo & Ibitoye, 2019 & Adejumo et al, 2025). Lastly, the accessibility and availability of data within the Asa Local Government make it feasible to conduct the research effectively.

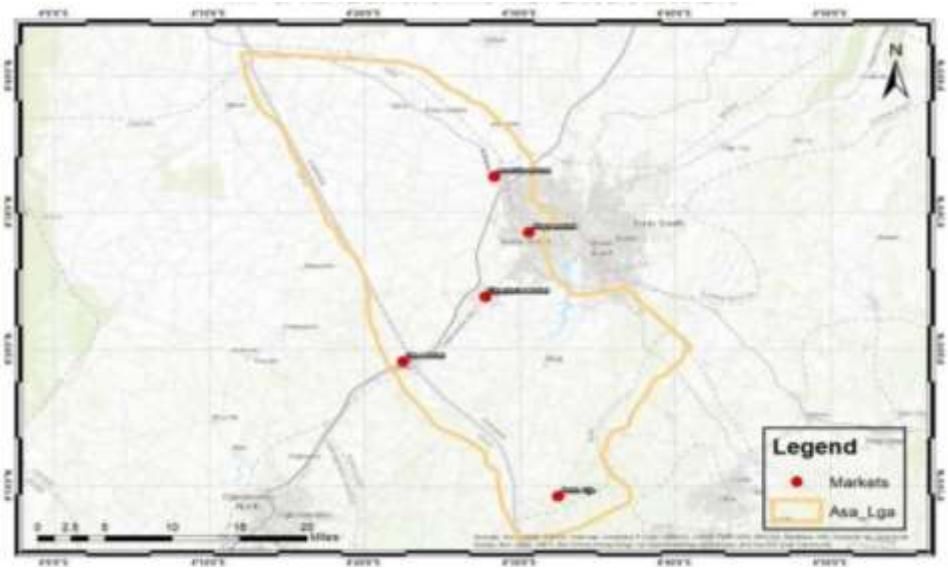

Figure 2: ASA Local Government Area showing the five periodic markets

IV. Methodology

A cross sectional survey research design was used in which both primary and secondary data were sourced. Using a purposive multi stage sampling techniques, the five (Aboto, Alapa, Eyenkorin, Mondela and Otte) periodic markets in the entire LGA were identified and a convenient sampling method was used to pick the marketers who patronize the markets. Subsequently, 280 out of 5,600 which constitute 5% of the entire frame was proportionally taken from the identified periodic markets: Aboto (64), Alapa (66), Eyenkorin (61), Mondela (38) and Otte (51) Markets. Variables that were tested includes; mode of transportation, level of patronage and challenges faced by traders and customers in accessing the periodic markets. The quantitative analysis was done using level of Patronage Index (PI), Challenges Index (CI and Chi-square at p=< 0.05.

V. Result and Discussion

5.1 Means within the Mode of Road Transportation in the five Periodic Markets

An investigation into the mode of transportation to and fro to the five periodic markets was conducted. The result shows that a significant proportion of the respondents are usually conveyed to periodic markets by taxi/cab: Eyenkorin (70.5%), Mondala (63.2%), Alapa (57.6%), Otte (56.9%), and Aboto (51.6%). The proportion of respondents who join the bus includes 18.8% (Aboto), 15.2% (Alapa), 16.4% (Eyenkorin), 13.2% (Mondala), and 29.4% (Otte), while the respondents who prefer trucks are more at Aboto (18.8%), followed by Alapa (15.2%), Otte (7.8%), Eyenkorin (3.3%), and Mondala (2.6%). The largest share of respondents who prefer to take lorries due to the lower cost of transport and the advantage of carrying additional luggage accounted for the highest in Alapa (6.1%), followed by Aboto (3.1), Mondala (2.6%) and Eyenkorin (1.6%). The respondents who use motorcycles were relatively low across the periodic market include Aboto (3.2%), Alapa (4.5%), Eyenkorin 4.9%, Mondala (5.2%), and Otte (3.2%) markets.

The breakdown of results shows that respondents in Mondala (7.9%) and Otte estate (2.0%) used tricycles, while respondents who used private cars accounted for 3.2%, 1.5%, 1.6%, and 5.3% in Aboto, Alapa, Eyenkorin, and Mondala markets respectively. The data also shows that respondents in Aboto Market (1.6%) and Eyenkorin Market (3.3%) used other modes of transportation. Figure 1 revealed the total aggregate of the means of transportation across the five periodic markets in the study area.

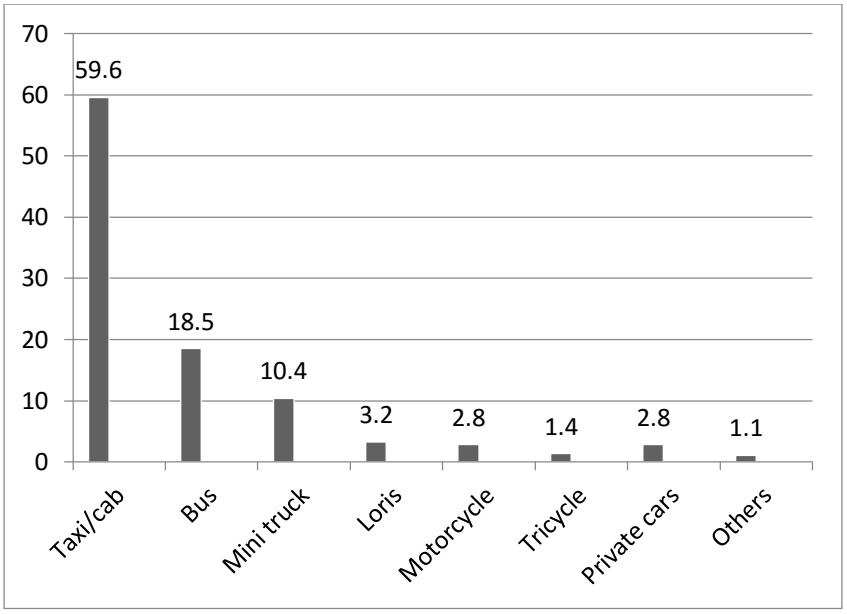

Figure 1: Percentage means of Transportation to the periodic markets

5.2 Level of Patronage of Periodic Markets in the Study Area

The summary of data obtained shows that the patronage Index (PI) value is 3.48. The highly rated patronized commodities are rice/bean (3.96), vegetable (3.91), yam (3.87), yam flour (3.71), garri (3.69), fish (3.58), phones and gadgets (3.53). Others include electronic (3.41), shoe (3.40), meat (3.33), utensils (3.23), others (3.03) and clothes (2.91). A cross-examination of each market reveals that the LGA's mean PI (3.48) is greater than Aboto Market's mean PI (3.28). The commodities that are above the market PI include rice/beans (4.22), vegetables (3.72), fish (3.69), garri (3.61), yam flour (3.61), yam (3.45), and fruits (3.30). Other products include such as processed food (3.20), electronics (3.14), shoes (3.11), meat (3.09), computer gadgets (2.97), live stocks (2.88), clothes (2.88), others (2.86) and utensils (2.83).

Unlike Alapa Market, the mean PI (3.5) is lower than the general mean PI (3.61) for periodic markets in Asa LGA. The data shows that rice/beans are the most rated commodities (PI value, 4.38) in Alapa Market. Other well-rated commodities include computers and gadgets (4.36), fruits (3.85), yam (3.80), vegetables (3.79), livestock (3.68), electronics (3.62), meat (3.59), fish (3.56), and yam flour (3.55). All these commodities are always available in the market. The commodities that are below the mean PI (3.5) for the market and have a negative deviation from the mean are garri (3.41), processed food (3.41), shoes (3.27), utensils (2.86), clothes (2.73) and others (2.08).

Data collected at Eyenkorin Market revealed that the market average PI (3.49) is above the city's mean PI (3.48). However, yam has the highest PI index value (4.20). Next is vegetables (4.02), garri (3.82), rice/beans (3.84) and yam flour (3.79). Other commodities, such as shoes (3.59), clothes (3.49), utensils (3.39), electronics (3.38), fruits (3.34), meat (3.25), fish (3.23), phone and gadgets (3.20), livestock (3.11), others (3.08) and processed foods (3.07) have low PI value and a negative deviation from the mean.

In Mondala Market, the mean PI (3.31) falls below the LGA's average PI (3.48). The highly rated commodities with a positive deviation include vegetables (4.08), yam flour (3.84), yam (3.82), garri (3.74), fruit (3.68), and fish (3.55). These commodities were more available than others. Other goods with a low index value and a negative deviation from the mean include shoes (3.26), utensils (3.24), electronics (3.13), others (3.11), phones and gadgets (3.00), processed food (2.97), meat (2.97), livestock (2.71) and clothes (2.45).

The fifth sampled market, Otte, has the highest PI value of commodities that include phones and gadgets (4.10), yam (4.08), others (4.00), rice/beans (3.98), fruits (3.96), garri (3.88) and fish (3.86). Other commodities with low index values and a negative deviation are, (3.83), livestock (3.82), electronics (3.78), shoes (3.78), meat (3.76), processed food (3.76), yam flour (3.76), and clothes (3.0).

Table 1: Level of Patronage of Periodic Markets in the Study Area

Commodities	Aboto Market	Alapa Market	Eyenkorin Market	Mondala Market	Otte Market	PI	d	d^2
Yam	3.45	3.8	4.2	3.82	4.08	3.87	0.39	0.15
Vegetables	3.72	3.79	4.02	4.08	3.96	3.91	0.43	0.19
Garri	3.61	3.41	3.82	3.74	3.88	3.69	0.21	0.04
Yam flour	3.61	3.55	3.79	3.84	3.76	3.71	0.23	0.05
Rice/beans	4.22	4.38	3.84	3.37	3.98	3.96	0.48	0.23
Fruits	3.3	3.85	3.34	3.68	3.98	3.63	0.15	0.02
Fresh/stock/smoked/dried fish	3.69	3.56	3.23	3.55	3.86	3.58	0.10	0.01
Shoes	3.11	3.27	3.59	3.26	3.78	3.40	-0.08	0.01
Clothes	2.88	2.73	3.49	2.45	3	2.91	-0.57	0.32
Utensils	2.83	2.86	3.39	3.24	3.84	3.23	-0.25	0.06
Electronics	3.14	3.62	3.38	3.13	3.78	3.41	-0.07	0.00
Meat	3.09	3.59	3.25	2.97	3.76	3.33	-0.15	0.02
Livestock	2.88	3.68	3.11	2.71	3.82	3.24	-0.24	0.06
Processed foods	3.2	3.41	3.07	2.97	3.76	3.28	-0.20	0.04
Phones and computer gadgets	2.97	4.36	3.2	3	4.1	3.53	0.05	0.00
Others	2.86	2.08	3.08	3.11	4	3.03	-0.45	0.21
	52.55	**55.94**	**55.79**	**52.92**	**61.37**	55.71		
PI	**3.28**	**3.5**	**3.49**	**3.31**	**3.84**	3.48		

Source: Author's field survey, 2024.

The test of chi-square was done to test the difference of patronage levels in the five periodic markets in the study area. The result shows that there is no statistically significant difference in patronage level in the periodic markets at alpha of 0.001 or 0.005 as the p values are higher than 0.005.

Table 2: Chi-square Test on the Difference in Levels of Patronage in the Study Area

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	48.000[a]	42	.243
Likelihood Ratio	30.498	42	.906
N of Valid Cases	8		

5.3 Challenges faced by traders and customers in accessing and participating the periodic markets

The challenges faced by traders in the study area include poor patronage, high transport fares, insecurity, high taxes among others.

The calculated mean of Challenges Index (CI) for the Asa Local Government Area is 3.89. The major challenge confronting the market users in Aboto Market is a lack of market infrastructure. This is a common phenomenon in many Nigerian markets where adequate infrastructure was not usually given good consideration during the location of the market. However, other challenges with a low index value and negative deviation include, “High tax” (3.78), “Poor environmental quality” (3.77), “Insecurity” (3.69) “Parking problem” (3.53); “Long waiting at bus stop” (3.47); “Traffic holdup” (3.42) and “Poor access road” (3.20).

At Alapa Market, the calculated mean CI of 3.99 is relatively above the average CI for the whole periodic market. Implicitly, respondents in Alapa Market are borne out of a desire to enjoy serenity and freedom from negative externalities that can pose a threat to transactions. Meanwhile, the challenges that are below the market CI include High Transportation fares (3.94), Parking problems (3.92), Unstable market structure (3.92), Traffic

holdup (3.82), High tax (3.80), Long waiting at bus stops (3.80), Insecurity (3.61) and nearness to place of work (3.39).

For the Eyenkorin Market, the calculated mean of CI (3.97) is also above the LGA mean CI (3.89). "Lack of market infrastructure" is the highest-ranked challenge (4.20) facing the users. Next are "Unstable patronage" (4.10), "Poor environmental quality" (4.08), "Insecurity" (4.07), "Unstable market structure" (4.03), "long waiting at bus stop" (4.02), "Poor access road" (4.00); "High Transportation fare" (3.98); "Association problem" (3.98) and "Lack of space" (3.98). Other challenges with negative deviation from the mean with little or no influence on market users include "Poor waste management", "Traffic holdup and "Parking problems" with diminishing index values of 3.80, 3.80, 3.72, and 3.69 respectively.

The Mondala Market's mean CI is 3.71 lower than the city's mean CI. "Unstable market structure with a CI value of 4.08 is the greatest challenge facing market users in the study area. The next rated factors include "Lack of space" (4.05), "Unstable patronage" (3.97), "Poor waste management" (3.87); "Poor environmental quality" (3.84), and "Association problem" (3.61). The least ranked challenges with decreasing index values include "High Transport fare" (3.66), "Parking problem (3.61), Long waiting at the bus stop (3.55), the home environment can not alter (3.45), Traffic holdup (3.42), nearest to my place of work (3.32) and Insecurity (3.32).

The calculated mean CI for Ilorin metropolis (3.95) and Otte Market is 3.89. The highest-rated challenge facing market users in Otte Market is the "Lack of market infrastructure" (4.49). Next is "Un stable market structure", "High Transport fare", "Unstable market", "parking problem" and "Lack of space" with a CI value of 4.31, 4.06, 3.98, 3.96, and 3.96 respectively with positive mean deviation. Other challenges with decreasing index value include "Poor waste management" (3.90), "Insecurity" (3.88), "Traffic holdup" (3.88), "Unstable patronage" (3.84), "general cleanliness of environment" (3.84), "Association problem" (3.80), "others" (3.80), "High tax" (3.78) and Poor access road" (3.76).

Generally, the mean CI for all periodic markets in Asa LGA is 3.89. The highest CI with a positive deviation in the study area is "Lack of market infrastructure" (4.24); "Unstable market structure" (4.06); "High Transport fare" (3.99); "Poor waste management" (3.95); "Unstable patronage" (4.01); "Lack of space" (4.10); "Association problem" (3.95); "general cleanliness" (3.96) and High tax (3.95). However, other factors with negative deviation include "Traffic holdup" (3.67); "mutual benefits among neighbours" (3.87); "Poor access road" (3.75); "apartment can be secured on loan" (3.77); "Insecurity" (3.87); "others" (3.77).

Table 3: Challenges faced by traders and customers in accessing and participating in periodic markets

Challenges	Aboto Market	Alapa Market	Eyenkorin Market	Mondela Market	Ote Market	CI	D	d^2
Poor patronage	4.33	4.36	4.2	3.84	4.49	4.24	0.35	0.13
High Tfare	4.08	3.94	3.98	3.66	4.31	3.99	0.10	0.01
Long waiting at the bus stop	3.47	3.8	4.02	3.55	3.96	3.76	-0.13	0.02
Poor access road	3.2	3.39	4	3.32	3.76	3.53	-0.36	0.13
Insecurity	3.69	3.61	4.07	3.32	3.88	3.71	-0.18	0.03
High tax	3.78	3.8	4.05	3.82	3.78	3.85	-0.04	0.00
Unstable market	4.2	3.92	4.03	4.08	4.06	4.06	0.17	0.03
Lack of market infrastructure	3.98	4.17	4.1	3.97	3.84	4.01	0.12	0.01
Poor waste management	3.94	4.24	3.8	3.87	3.9	3.95	0.06	0.00
Association problem	4.05	4.17	3.98	3.82	3.8	3.96	0.07	0.01
Lack of space	4.03	4.47	3.98	4.05	3.96	4.10	0.21	0.04

Poor environmental quality	3.77	4.08	4.08	3.84	3.84	3.92	0.03	0.00
Parking problem	3.53	3.92	3.69	3.61	3.98	3.75	-0.14	0.02
Traffic holdup	3.42	3.82	3.8	3.42	3.88	3.67	-0.22	0.05
Others	3.91	4.11	3.72	3.45	3.8	3.80	-0.09	0.01
Total	**57.38**	**59.8**	**59.51**	**55.61**	**59.27**	58.31		
CI	**3.83**	**3.99**	**3.97**	**3.71**	**3.95**	3.89		

Source: Author's field survey, 2024.

The result shows that there are no statistically significant challenges faced by traders and customers in accessing and participating in periodic markets at alpha of 0.001 or 0.005 as the p values are higher than 0.005.

Table 4: Chi-square Test on Challenges faced by traders and customers in accessing and participating in periodic markets

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	56.000[a]	49	.229
Likelihood Ratio	33.271	49	.958
N of Valid Cases	8		

5.4 Conclusion and Recommendations

The study concludes, road transport system has a significant effect on the patronage of periodic markets in Asa Local Government, Ilorin, Kwara State and there are no variations in patronage level across the study area. In the quest to finding a lasting solution to the increasing urban problems the study suggests that the stakeholders in these markets should not shoulder the responsibility of developing and managing these markets alone. The local government area should rise to address their development. This can be done by carrying out a detailed market survey to determine the shop-needs requirements, so that, on a regular basis, they can provide more shops/stalls/stores and allocate them based on need.

Adequate security should be provided by the government, especially on market days. This can be achieved through collaboration with local vigilante groups. Security checks should be carried out along the market traffic corridors.

A management committee is suggested for urgent attention to issues in the markets. This should comprise members of each market sector association to see to the maintenance, management and coordination of these proposed amenities, facilities and utilities in these markets. The management committee would see to the implementation and enforcement of effective general sanitation of the markets.

Government should invest more in the transportation system, especially in the area of infrastructural provision. This will enable our marketplace to be easily accessible.

The government through its agency should ensure that adequate road maintenance is done on Nigeria roads. This will reduce the incidence on roads and also promote easy delivery of goods and services. Community effort should be encouraged through public awareness campaigns by the government and the traditional rulers on the importance of such activities in terms of the provision and maintenance of both the markets and roads in the study area.

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