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Assessment of Passengers' Satisfaction of Public Transport System in Akure-Owo Axis, Nigeria

Olorunfemi, Samuel Oluwaseyi[1] & Adeniran, Adetayo Olaniyi[1]

[1]Department of Transport Management Technology , Federal University of Technology Akure, Nigeria

Correspondence: Olorunfemi, Samuel Oluwaseyi, Department of Transport Management Technology , Federal University of Technology Akure, Nigeria. Email: soolorunfemi@futa.edu.ng

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Abstract

This study assesses passengers' satisfaction of public transport system in Akure-Owo axis, Nigeria. It was necessitated by the poor nature of transport system which has created impediments to the smooth movement of people, goods and services in some of urban centres in Nigeria. Meanwhile, the importance of public transport in cities of many developing countries lies in the fundamental fact that accessibility and mobility are essential for economic growth and also for effective and efficient movement of goods and services. Twelve bus services were identified. The study was conducted using questionnaires and field observation to collect the required data at the terminals (i.e. Akure and Owo Park). One hundred and twelve (112) questionnaires were administered to the passengers across the two terminals. Descriptive tool such as weighted mean and standard deviation were employed. Also, Gap analysis was used to achieve descriptive statistics. Findings revealed that passengers were not satisfied with the competence of drivers, condition of vehicle, overloading and over-speeding, attitude of drivers, driver's compliance with road safety rules and order, and the cost charge per trip. Based on the dissatisfactions, recommendations were suggested.

Keywords: Assessment, Passengers' Satisfaction, Service Quality, Public Transport System.

1. Introduction

Transport is important for the survival of modern society and without it there would be no life in the city (Onokala, 2001).Transport needs of major cities in Nigeria now present significant challenges for policy makers as unpredictable shifts in population dynamics in response to the need for employment, housing, and sustenance continues (Nwachukwu, 2014). The expansion of the cities in Nigeria, coupled with increasing urban population,

results in greater demand for transport provision. This demand has, however, not always been met, and efforts to provide adequate transport infrastructural facilities are ad hoc, uncoordinated, and poor (Nwachukwu, 2014). As an important service in urban centres, transport enables people, firms and other organizations to carry out their activities at sites selected for these purposes in separate locations in the cities (Nwachukwu, 2005). Transport provides a crucial understanding and operation of many other systems at many different scales and is an embodiment of the complex relationships between social and political activities, and other levels of economic development (Hoyle and Smith, 1992; Nwachukwu, 2005).

Public transportation has undoubtedly play a vital role in commuting passengers to work or to places that they desire, and more importantly, to reduce traffic congestion (Rohana*et al*., 2012). Public transportation by definition connotes the act or the means of conveying large number of people "en masse" as opposed to conveyance in individual vehicles carrying very few people at a time. In other words, public transport or mass transit is a system in which a greater number of people are moved at a time along principal corridors (Ogbazi, 1992, Nwachukwu, 2005). It is also referred to as mass transit which comprises mainly of the rail system, light rail system, tram ways and monorails, bus system and where possible water transportation (Nwachukwu, 2005).

Today, experiences show a need for greater variety of public transport modes, but buses are choice of a majority of the communities and are the only means of mobility that can be afforded by the poor in developing countries of the World. The choice of any or a combination of the public transportation systems enumerated above could be influenced by population and area/size of the city, their transportation demand and characteristics and land use pattern. The bus system is the transportation system that uses buses that may have a range of passenger capacities and performance characteristics, and may operate on fixed routes with fixed schedules, or may be flexibly routed. Bus systems have the capability of extending transport services to greater proportions of urban residents who do not have private cars and cannot afford frequent taxi fares (Andeleeb *et al*., 2007; Nwachukwu, 2014). They have the potential of being used as policy tools to reduce the number of cars on urban roads and thus reduce traffic chaos in cities. Despite the vital role that buses are able to play in any urban area, their services in Nigerian cities are often insufficient to meet demand, and the services provided suffer from low output (Ali and Onokala, 2009).

Creation of modern cities has been facilitated and influenced greatly by urban transportation. Public's travel demands have increased, leading to complexity in the provision of extra ability to handle and control the situation effectively. The condition has amplified road congestion, thus condensing urban mobility to critical points in many cities in the world (Githui etal, n.d). This predicates on the public transportation scene in many of the cities that is characterized by overcrowding and the use of already overused and rickety vehicles imported from other parts of the world, persistent traffic congestion due to continuous deteriorating condition of roads that inadvertently slow down traffic, increasing vehicular and pedestrian accidents and their associated increase in the cost of human capital growth and loss of man-hours for several weeks (Adeniji, 2000; Oyesiku 2002; Badejo, 2008; Oyesiku *et al*.n,d). Meanwhile, according to the global rating of transportation negativities in major cities of the world, the adverse effects of road traffic congestion was rated at 54.5%, while ineffectual public transportation system, air and noise pollution were rated 54.8% and 59.4% respectively (Oyesiku *et al*. n.d). This shows that road traffic congestion is

expected to be worst at 61.3% than public transportation and air pollution in the nearest future (Auclaire, 2000; Oyesiku *et al*. n.d).

Improved economic status coupled with rapid urbanization insert intense and unbearable demands in almost all cities in the world in the provision of social services such as transportation water, education etc. Today there are more vehicles making more trips over longer distances, most urban transport systems are at their point of dissemination and there is latent total dysfunction. The trend is worrisome and calls for an incorporated approach in the search of solutions which include effective and efficient management of available infrastructure, controlled urban planning and growth management, and promotion of public transportation modes (Zegras *et al.*, 1999). Public transport service is part of the basic infrastructure and essential in the development of a country (Amsori *et al*., 2013). However, among the major goals of all actors involved in the public transport business is the formation of a well-organized transit system, within which citizens can find a sufficient level of mobility and satisfy their important need for the efficient movement under safe and comfortable conditions. This overall principle entails many significant quality characteristics of the public transport system, such as safety, on-time performance, accessibility, efficiency, information provision etc (Oyesiku,n.d).

Edvardsson (1998) opined that customers' satisfaction or dissatisfaction depends on the usage of the information that the business can dig out from its customers. One way is through complaints. He found that the driver plays a significant role on the satisfaction or dissatisfaction of the customer, and that because the driver, usually, does not know the customers' needs and expectations and in many cases it is something that leaves the driver indifferent. Moreover, friendliness of the personnel especially bus driver behaviour in relation to service frequency has an impact on customer satisfaction. Friendliness behaviour of the bus driver can satisfy customers by developing better communication and knowledge of its customer's needs (Disney, 1998). As far as frequency is concerned, frequent services increase satisfaction and urban transportation patronage. To this end, this research tend to assess the passengers' satisfactions of public transport in Akure-Owo axis, Nigeria and emphasizes will be placed on mini public bus transport which is the major dominant means of transport along the axis. However, the objectives of the study are to identify the social-economic profile of the public bus drivers along the axis; examine the heterogeneity or homogeneity of passengers' perception towards bus services; and asses the level of passenger satisfaction and quality of public bus transport service along the route.

2. Literature Search

Public transport was professed as unpleasant and public transport users expressed more negative attitude toward their daily commute. The negative attitudes were revealed to be related to stress as well as boredom caused by delays and waiting time at the bus stop. (Nwaogbe *et al*., 2013). Dominance of motor vehicles in land transportation has resulted in a lot of serious environmental and social problems such as traffic congestion, air pollution, noise and climate change (Cox, 2010; Sik et al, 2012). This highlights the importance of private transport use's reduction and public transport use's enhancement. To respond these signs, "Public transport systems need to become more market oriented and competitive, as they tend to be viewed as service product" (Lai and Chen, 2010). Jenny (2013) suggests that, in order to achieve accessibility in a sustainable way, it is necessary to have a good and frequently used public

transport system. He also noted that public transport, together with pedestrians and cyclists are prerequisites for transportation in a larger city.

For effective movement of passengers with public transport, understanding the behavioral intention of public transport passenger is important, because favorable behavioral intention lead to customer loyalty which plays crucial role for success and survival of the service firm (Wen *et al*., 2005; Lai and Chen, 2010; Sik*et al*., 2012). For public transport operators, understanding passengers' behavioral intentions after experiencing the public transit services is also important, since it can help them "design effective strategies to meet passengers' needs, and thus retain existing passengers' as well as attract new ones from other modes" (Lai and Chen, 2010). Jenny (2013) noted that actions to increase the use of public transport can be divided into four categories; quality, knowledge, properties and social attitudes of the public transport system; also a sustainable transportation system is depending on a high quality public transport system with reasonable pricing. A modern transport system which provides high quality of services has been a contemporary issue in transport modeling literature (Cullinane, 2002; Ali, 2010; Randheer *et al*., 2011, Aidoo *et al*., 2013). According to Ali (2010), transport is important for the survival of the modern society. An effective and efficient transport system can significantly contribute to human development in a wider perspective (Aidoo *et al.*, 2013).

However, it has also been argued that provision of public transport services in a large number of cities in the developing world often does little to meet the travel needs of the population, particularly residents of low income areas (Wright, 2004; Lorita, 2011). The road-based public transport in developing world cities is characterized by many informal and formal vans, mini-buses, and full-sized buses (Wright, 2004), and the services rendered are generally poor and often regarded as inadequate. Standards of safety, security, comfort, convenience, regularity, punctuality (where schedules apply), reliability, and speed are not encouraging and low incomes also lead to problems of affordability of prices (Behrens *et al*, 2004; Iles, 2005; Wright, 2004; Lorita,2011). According to Iles (2005), there is also general public dissatisfaction in many developing countries with the quality of public transport services. Meanwhile, Lorita (2011) quoting Wright (2004) identified the following paucities in the present services that the public transport customers or passengers usually complain about and this are; inconvenience in terms of location of stations and frequency of services; failure to service key origins and destinations; fear of crime at stations and within public transport vehicles; lack of safety in terms of driver ability and roadworthiness of public transport vehicles; service is much slower than private vehicles, especially when public transport vehicles make frequent stops; overloading of vehicles makes ride uncomfortable; poor-quality or non-existent infrastructure (e.g., lack of shelters, unclean vehicles, etc.); lack of organized system structure and accompanying maps and information make the systems difficult to use; and Low status of public transit services.

Kwakye *et al.*, (1997); Sohail, (2005) and Lorita, (2011) revealed that in most developing world cities, the urban poor rely or depend deeply on public transport for accessibility and mobility and where there is a lack of accessible, adequate, affordable, safe, reliable public transport; there is a negative impact on the poor's livelihoods (i.e., a considerable limit on their livelihood strategies) and therefore on their household incomes (Booth *et al.*, 2000; Palmer *et al.*, 1997; Sohail, 2005; Gannon and Liu, 1997). Despite the vital role that buses play in any urban areas, their services are frequently insufficient to meet demand and the services that are provided mostly suffer from low

output (Ali, 2010). In many parts of the world, individuals tend to use their private vehicles due to lack of satisfaction they derive from the services of public transport. For instance, the findings of Cullinane (1992) in an attitudinal survey in UK showed that 41% of private car users would reduce their car usage if public transport became frequently available and reliable. Again, Cullinane (2002) used attitudinal survey based on sampled university students in Hong Kong and found that good public transport can deter car ownership, with 65% of the respondents in the survey stating their unlikelihood of buying a car in the next five years. Improvement in transport system can have a positive effect on land development (Deng and Nelson, 2010). The authors further describe that high quality of public transport system can greatly improve the accessibility of its catchment area by shortening time.

Margareta and Markus (2009) emphasized that in many countries of the world, major investments are being made in public transport systems to make them more competitive vis-à-vis other means of transport. However, an increase in supply (qualitatively or quantitatively) will not automatically lead to a corresponding increase in demand and satisfaction (Fujiiand, 2003). To make sure that investment really attracts both the existing and the potential customers envisaged, knowledge of satisfaction and service performance should provide policymakers and operational managers in public transport with valuable information (Nathanail, 2007). Satisfaction is "a cumulative idea that is affected by market expectations and performance perceptions in any given period, and is also affected by past satisfaction from period to period" (Johnson *et al*., 1995; Sik*et al*., 2012). Customer satisfaction lies in the disconfirmation of customer expectation pattern, whereas a positive disconfirmation leads to customer satisfaction and negative satisfaction leads to customer dissatisfaction (Oliver, 1980; Tse and Wilton, 1988; Yi, 1990; Jamali, 2005; Ismail *et al*., 2006; Sik *et al*., 2012).

Furthermore, it "pertains to a holistic evaluation after a service delivery experience, and acts as a consequence of satisfaction with individual attributes (i.e. service quality)" (Lai and Chen, 2010). In services industry, since satisfaction brings a lot of benefits to organizations, it has been widely identified as a key intermediary objective (Ranaweera and Prabhu, 2003). One of its benefits is that satisfaction is generally seen as the main driver of customers' favorable behavioral intentions (Ranaweera and Prabhu, 2003; Clemes, et al., 2008; Lai and Chen, 2010). Customers' favorable behavioral responses, such as repurchase and positive word of mouth, will be obtained by the organization if the customers were satisfied (Cronin and Taylor, 1992; Fornell, 1992; Swanson and Kelly, 2001; Wen *et al*., 2005; Clemes *et al*., 2008). However, to increase public transport use, the service should be designed and performed in a way that accommodates the levels of service required by customers or passengers for their satisfaction (Beirão and Cabral 2007; Margareta and Markus 2009).

There seems to be knowledge of how customers/passenger sees public transport. In the literature, aspects such as reliability, frequency, travel time and fare level (Hensher *et al*., 2003, Tyrinopoulos and Aifadopoulou 2008), comfort and cleanliness (Eboli and Mazzulla 2007, Swanson *et al*., 1997), network coverage/distance to stop (Erikssone*t al*., 2009, Tyrinopoulos and Antoniou 2008), and safety issues (Smith and Clarke 2000, Fellesson and Friman 2008) are all known to be important factors in customer evaluations of public transport service quality. Eboli and Mazzula (2007) also comment that an improvement in the supplied service quality can attract further users. Randheer *et al*. (2011) argues that in the current scenario of globalization, public transport service needs pensive

sensitivity towards the quality of service offered. Transportation system can be a reliable indicator of economic development. It works as a factor that stimulates economic growth by providing employment, improving the effectiveness and efficiency of other businesses and also contributing to national investment and development (Aidoo *et al.,* 2013). In corroborating the above, Dube *et al*. (2011), opines that public transport plays a social role in the urban environment: it improves access to work places and service infrastructure and at the same time, reduces travel expenses. Both public authorities and transport operators are convoluted in policy formulation and implementation in relation to transport services. Since public authorities and transport operators have different goals, regulation plays an important role, especially, failing competition (Gatta and Marcucci, 2007; Aidoo *et al*., 2013).

2.1 Urban Transportation Challenges

There are a number of related urban transportation problems in the cities (Okoko, 2006). With the spread of commercial activities and the growing size of cities, it was no longer possible for many city dwellers to live within walking distance of work (Protibha, 2010). Urban transportation has become increasingly important as our cities continue to grow and the development has transformed into many problems within the cities. However, these problems appear to be more acute and more serious in towns and cities of the developing countries because of their low level of technological development (Okoko 2006). According to Protibha, (2010), cities are locations having a high level of accumulation and concentration of economic activities and complex spatial structures that are supported by transport systems. The most important transport problems are often related to urban areas, when transport systems for a variety of reasons cannot satisfy the numerous requirements of urban mobility. Obot *et al*. (2009) quoting Dyckman,(1972) reveals that the problem of urban transportation first became manifested in the first century AD when the Roman Municipal government in an attempt to decongest its street, restricted vehicular traffic to night hours, and Rome was then the only "big city" in the western world.

Okoko (2006), and Protibha (2010) identifies different types of urban transportation problems, among which are; traffic congestion and parking difficulties, loss of public space, poor level of traffic management facilities and traffic signs and signals coupled with the poor and deplorable state of most of the urban road. Aworemi *et al*. (2009) quoting Hook, (1995), asserts that traffic congestion is a condition on networks that occurs as use increases, and is characterized by slower speeds, longer trip times, and increased queuing. When traffic demand is great enough that the interaction between vehicles slows the speed of the traffic stream, congestion is incurred. As demand approaches the capacity of a road (or of the intersections along the road), extreme traffic congestion sets in. When vehicles are fully stopped for periods of time, this is colloquially known as a traffic jam (Aworemi *et al*., 2009). Traffic research still cannot fully predict under which conditions a "traffic jam" (as opposed to heavy, but smoothly flowing traffic) may suddenly occur (TTI, 2009).

It has been found that individual incidents may cause ripple effects (a cascading failure) which then spread out and create a sustained traffic jam when, otherwise, normal flow might have continued for some time longer. Traffic congestion is not primarily a problem, but rather the solution to our basic mobility problem, which implies that, too many people want to move at the same time each day. For instance, efficient operation of both the economy and school systems require that people work, go to school and even run errands about the same hours so that they can interact with each other. The same problem exists in every major metropolitan area in the world. Peak-hour traffic

congestion in almost all large and growing metropolitan regions around the world cannot be over emphasized. In fact, it is almost certain that the situation will get worse these days mainly because of the rising population and wealth. This will be true no matter what public and private policies are adopted to combat congestion. Although, traffic congestion is inevitable, there are ways to slow the rate at which it is intensified. Several tactics could do that effectively, but nothing can eliminate peak hour traffic congestion from large metropolitan regions around the world. Only serious economic recessions, which are hardly desirable, can even forestall an increase (Aworemi *et al*., 2009). However, Onokerhoraye (2007), opines that inadequate of land for motor vehicle transportation in Nigeria have resulted into haphazard parking of heavy-duty vehicles along the few major roads in the urban centers. Similarly, smaller vehicles are parked on the sidewalks (road side) and pedestrians crossing. There are many cases in which petrol filling stations are converted to passenger motor parks, all these constitute to transportation problem in Nigeria which often time results to on-street parking.

Travel demand is a derived demand and the urban activities do cause and generate travel needs (Githui *et al.*, n.d). Universally, there is great contribution of service sectors which are urban centric thus improvement of transportation infrastructure in urban areas takes precedence (Yelda, 2008). Transportation in urban areas is a critical and major concern in almost all mega cities in the world. Due to the rapid and uncontrolled urban and vehicle growth, there has been a noticeable impact either positively or negatively to the economic development of different nations of the world. Transportation systems i.e. air, water and land are classified among the major contributors of pollution to the environment leading to the global climate change. This is greatly credited to the fact that they consume high levels of energy thus emitting considerable amount of pollutants and particulate matters to the atmosphere (Githui *et al.*, n.d). More so, environmental and social effects related to the urban transportation are increasingly being seen as a total menace to the entirety sustainability of the world climate. Increased use of automobile causes traffic jam, air pollution and accidents and generate threats of global warming. Meanwhile, Richard (2005) elaborates based on the researches carried out in several cities of the world, most commuters express their level of dissatisfaction with the quality of services provided or supplied. This is highly attributed to the rapid urban population growth resulting in raise in demand which various transport systems are unable to meet efficiently and effectively, which therefore affect the level of passenger satisfaction

3. Study Area

The Akure-Owo express way is a major road connecting the western and northern parts of the country and thus a very busy federal road (Adeyemo and Omosuyi, 2012). According to FGNRSDT (2010), the road is one of the categories of road constructed from Benin to Ilesha in 1965 as surface dressed and in 1978 it was converted to asphaltic concrete and had its last major intervention from Owo to Akure in 1998. The Owo – Akure section of the road commences from Ikare junction in Owo and terminates at Akure. This section of the road has experienced major rehabilitation recently thus clarifying the good condition of the road. Although, according to the report of FGNRSDT (2010), it was discovered that culverts, drains and bridges are experiencing various levels of siltation and scouring and will require various types of repairs and maintenance including painting, cleaning of bridge bearings, joints and weep holes. The distance from Akure to Owo covers 51 kilometer. The major towns along the

axis include: Iluabo, Ogbese, Uso and Emure. The major parks identified in the axis are Beinin-Ado Park in Akure and Post Office Park in Owo. The map below shows the Akure-Owo in its national setting.

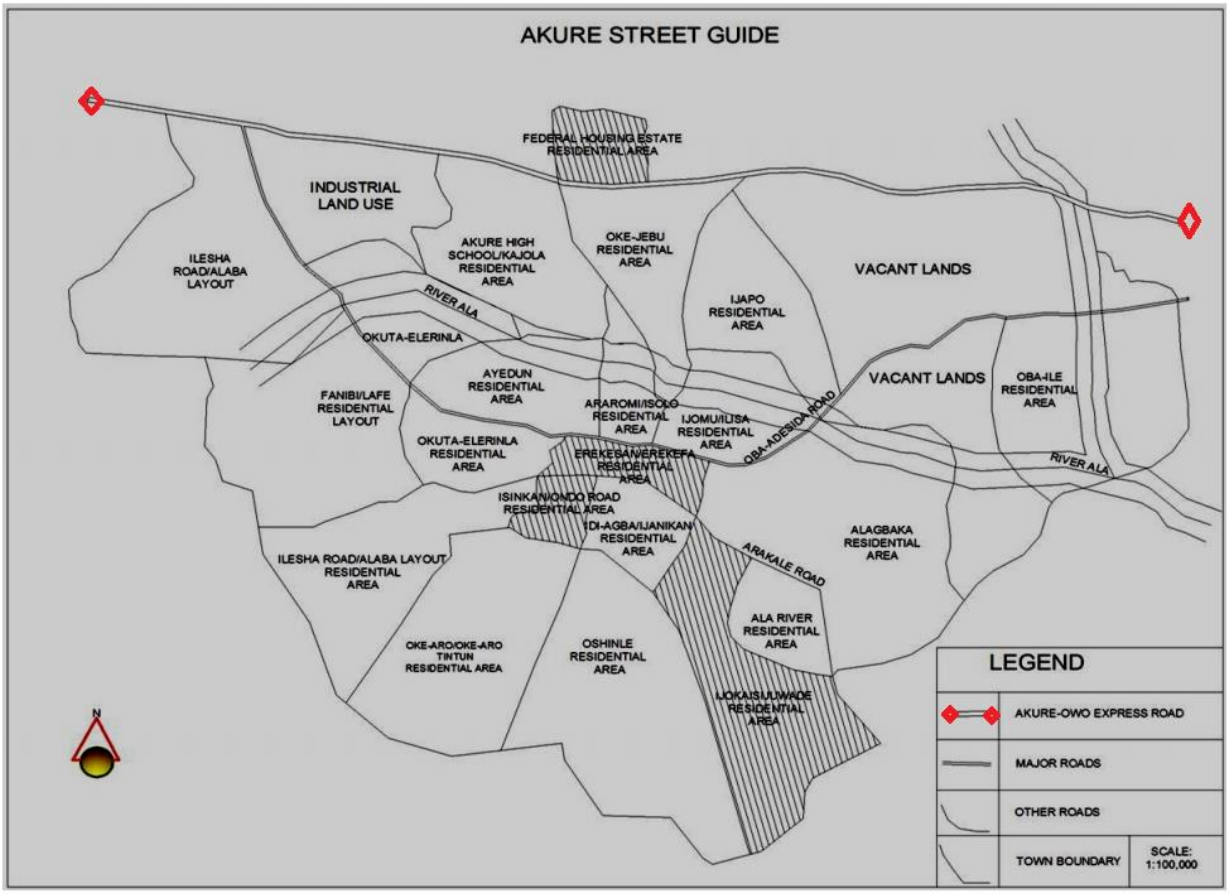

Figure1: Map of areas in Akure showing Akure-Owo road

Source: Modified from Eke, Oyinloye and Olamiju (2017)

4. Research Methodology

This research is descriptive in nature simply because the statistical data types are ordinal and nominal in nature. Data were sourced using primary and secondary sources. The populations under study are the passengers of public transport (mini buses) along Akure-Owo axis in Ondo State, Nigeria. A well-structured questionnaire was used to collect primary data from passengers who travelled within the axis on daily basis. In order to determine the sample size for the study, the daily record of movement were sourced from National Union of Road Transport Workers (NURTW), coordinating Akure-Owo axis. Based on the record, at least fourteen (14) mini buses operate to and fro along the axis and each has a carrying capacity fourteen (14) passengers. The numbers of the mini buses operate on daily basis were multiplied by the number of passengers, which amounted to one hundred and twelve (112).

However, purposive and random sampling methods were used during the course of the study. Purposive sampling method was needed to ensure that only the passengers who are traveling between Akure-Owo were surveyed. The random technique was adopted to ensure that individual respondents (passengers) have equal rights to be sampled for the purpose of the study. The data collected for the study were analyzed using Gap analysis.

Gap analysis was used to compare the expectations and perceptions of quality services. According to Thomas *et al*. (2014), the assumption of Gap analysis is that when the Expected Service (ES) is greater than the Perceived Service (PS), quality will be perceived as being less and less than satisfactory, the greater the difference between ES and PS is. When Expected Service (ES) is equal to the Perceived Service, the quality is satisfactory, also when Expected Service (ES) is less than the Perceived Service ES < PS, quality will be more and more satisfactory as the difference between PS and ES grows.

In order to analyze this study, weighted mean values of Expected Service (ES) was compared with the weighted mean values of Perceived Service PS, and Gap analysis was conducted based on the weighted mean values. Also, the importance of standard deviation in a perception study like this cannot be overemphasized. Standard deviation provides information about the spread of a variable's value, and it is essential to determine the heterogeneity or homogeneity of respondents in the questionnaire survey (Fadare and Adeniran, 2018). In order to establish the heterogeneity or homogeneity perception of respondents, interval or range was determined as shown below;

$$\text{Interval} = \frac{\text{Maximum count} - \text{Minimum count}}{\text{Number of range}}$$

$$\text{Interval} = \frac{5 - 1}{5}$$

Interval = 0.8.

Each interval is equal to 0.8 for each different variable, the level of satisfaction that respondents ranked will be between the intervals which is translated as follows:

Rating Range Translation

a. 4.20 – 5.00: Passenger is strongly satisfied.
b. 3.40 – 4.19: Passenger is satisfied.
c. 2.60 – 3.39: Passenger is neither satisfied nor dissatisfied.
d. 1.80 – 2.59: Passenger is dissatisfied.
e. 1.00 – 1.79 Passenger is highly dissatisfied.

Also,

a. 4.20 – 5.00: Service is excellent.
b. 3.40 – 4.19: Service is very good.
c. 2.60 – 3.39: Service is good.
d. 1.80 – 2.59: Service is fair.
e. 1.00 – 1.79: Service is poor.

The justification for standard deviation of 0.8 is that if the standard deviation in the study is less than 0.8, the perception of respondent is homogenous in nature, but if the standard deviation in the study is more than 0.8, the perception of respondent is not heterogeneous in nature (Fadare and Adeniran, 2018).

5. Results and Discussions of Findings

5.1 Social-Economic Characteristics of Passengers

*T*he information in Table 5 revealed the socio economic characteristic of the passengers sampled for the study. The variables considered include sex, marital status, age, educational status. The sex of the passengers revealed that

66.1% were male and 33.9% were female. This shows that majority of the passengers moving along Akure-Owo are male. This may be to the fact, according to (Oyesiku and Odufuwa, (n.d) that the activities of women in terms of mobility or travel vary differently along gender lines. There are observable gender differentiations in travel behaviour in the space which can be traced to numerous factors that range from age, income level, societal perception, time, distance, family size, etc (Olorunfemi et al., 2014) .The marital status indicated that 27.7% were single, 48.2% were married, 17.9% were divorce and 6.3% were widowed. The analysis above shows that majority of the passengers were married. This implies that married people make more trips in the area than other marital status class. This could be to the fact that married people need to move around in searching for one opportunity or the other for the purpose of meeting their daily need and to provide for their household.

Investigation into the age status of the passengers shows that that 27.7% of them fall within the age bracket of 20-30 years, 44.6% were within 30-40 years, 18.8% were between ages of 40-50 years and 8.9% were above 50 years. From all indication, majority of the passenger fall within the age bracket of 30-40 years. This implies that these age bracket greatly influence the quest for a living. It is an active working age bracket capable of coping with the complex challenges of the human environment (Ayuba *et al.*, 2009). The educational status of the passenger revealed that majority of them (44.6%) possessed higher institution certificate. This implies the passengers were knowledgeable enough to provide information on level of satisfaction drive from patronizing public transport along Akure-Owo axis. Meanwhile, majority (54.5%) of them opined that cheaper in price compare to other vehicle along the axis propels them to patronize public transport in the area (see fig.2c). The occupational status shows that majority (40.2%) of the passengers along Akure-owo road were traders and followed by students (22.3%) and professional/artisan (22.3%) respectively.

Table 1: Socio-economic profile of respondents

Social –Economic Characteristics		**Frequency**	**Percent**
Sex	Female	38	33.9
	Male	74	66.1
	Total	112	100
Marital Status	Single	31	27.7
	Married	54	48.2
	Divorce	20	17.9
	Widowed	7	6.3
	Total	112	100.0
Age Status	20-30	31	27.7
	30-40	50	44.6
	40 -50	21	18.8
	50 and Above	10	8.9
`	Total	122	100.0
Education Status	No Formal Education	10	8.9
	Primary school	31	27.7
	Secondary school	21	18.8
	Tertiary above 40-50	50	44.6

	Total	112	100.0
Occupation Status	Student	25	22.3
	Trader	45	40.2
	Professional/artisan	25	22.3
	Civil servant	17	15.2
	Total	112	100.0

Source: Authors Field Work (2018)

5.2 Regularity of Travel, Cost of Transportation and Reason for the choice of Public Transport along Akure-Owo Road

The regularity of passengers travel or movement along Akure-Owo road indicated that 13.4% of the passengers do not traveled regularly, 35.7% travelled on occasional basis while 50.9% of them traveled along the route regularly. These imply that majority of the passengers along the axis travel regularly and as such have the in-depth knowledge of the road. However, majority them (54.5%) claimed that the cost of travel range between ₦500-₦600.

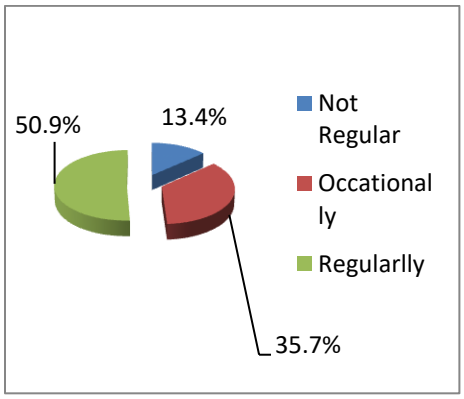

Fig. 2: Regularity of Passenger Travel

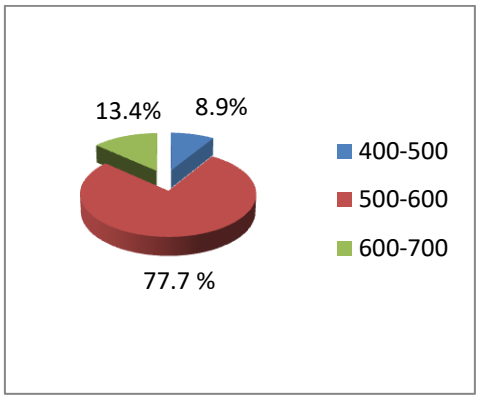

Fig.2b: Cost of Transportation

Source: Authors Field Work, (2018)

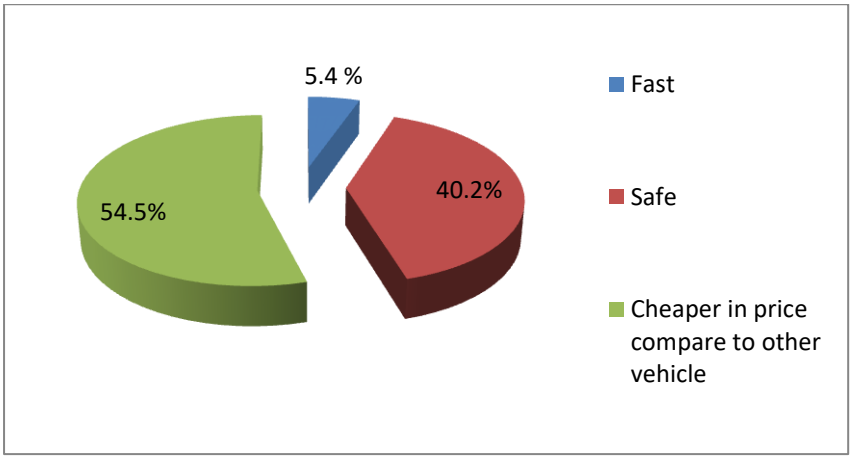

Fig. 2c: Reason for Patronize Public Transport

Source: Authors Field Work, (2018)

5.3 Heterogeneity or Homogeneity of Passengers' Perception towards Public Bus Services

The heterogeneity and homogeneity of passengers' perception towards bus services can be determined from the interpretation of standard deviation. Standard deviation is among the tools for determining the measures of

dispersion which provides information about the spread of a variable's value. It is in the view of Adeniran (2017) that if standard deviation is more than the interval, the perception of all respondents towards a particular service is dissimilar or heterogeneous. In the same vein, if standard deviation is less than the interval, the perception of all respondents towards a particular service is similar or homogenous. The perception of passengers towards the public bus services was analyzed and depicted in table 2 below.

Table 2: Descriptive analysis for service quality (Expected Service) and passenger satisfaction (Perceived Service)

Service Indicators	N	Mean of ES	Std. Deviation of ES	Mean of PS	Std. Deviation of PS
Safety	112	3.0536	.75742	3.0804	.79376
Comfortability	112	2.8125	1.15104	2.9643	1.10632
Available of seat	112	2.9821	1.17006	3.0982	1.12274
Time delay at bus stop	112	2.1429	1.19953	2.4911	1.24478
Relationship with drivers	112	2.5982	1.26249	2.6696	1.27617
Competence of drivers	112	2.7768	1.45013	2.7679	1.37534
Condition of vehicle	112	2.8214	1.54928	2.8125	1.41122
Reliability	112	2.9286	1.63693	3.1429	1.67578
Overloading and over-speeding	112	3.3304	1.60735	3.2768	1.62309
Drivers Altitude	112	3.2143	1.65180	3.1696	1.61015
Compliance with road safety rule and order	112	3.2143	1.59633	3.0625	1.56701
Cost charge per trip	112	3.0982	1.63277	3.0179	1.57676
Valid N (listwise)	112				

Source: Authors Field Work, 2017

From the descriptive analysis depicted in table 2 above, standard deviation values for both service quality and passenger satisfaction is greater than 0.8 for all services except safety which is less than 0.8. The implication of standard deviation more than 0.8 is that passengers felt dissimilar or heterogeneous about the services offered which is one of the unique characteristics of transport as a derived demand. The implication for standard deviation of safety less than 0.8 is that passengers felt similar about safety and this might be attributed to the fact that safety of passengers is considered essential when compared with all other services. The passengers view is similar with the condition of safety service.

5.4 Level of Passenger Satisfaction and Quality of Public Bus Transport Service along the Route

The level of passenger satisfaction and quality of bus transport service along the route was analyzed and depicted in table 3 below.

Table 3: Gap Analysis of Passenger Satisfaction and Service Quality

Service Indicators	Mean of ES	Mean of PS	Gap Analysis (ES-PS)	Decision
Safety	3.0536	3.0804	0.0268	Satisfied
Comfortability	2.8125	2.9643	0.1518	Satisfied
Available of seat	2.9821	3.0982	0.1161	Satisfied
Time delay at bus stop	2.1429	2.4911	0.3482	Satisfied
Relationship with drivers	2.5982	2.6696	0.0714	Satisfied

Competence of drivers	2.7768	2.7679	-0.0089	Dissatisfied
Condition of vehicle	2.8214	2.8125	-0.0089	Dissatisfied
Reliability	2.9286	3.1429	0.2143	Satisfied
Overloading and over speeding	3.3304	3.2768	-0.0536	Dissatisfied
Drivers Altitude	3.2143	3.1696	-0.0447	Dissatisfied
Compliance with road safety rule and order	3.2143	3.0625	-0.1518	Dissatisfied
Cost charge per trip	3.0982	3.0179	-0.0803	Dissatisfied
Valid N (listwise)				

Authors Field Work (2017)

From the Gap analysis depicted in table 2 above, passengers were not satisfied with the competence of drivers, condition of vehicle, overloading and over-speeding, attitude of drivers, driver's compliance with road safety rules and order, and the cost charge per trip.

5.5 Methods of improving Public Transport

Table 4 blow shows the passengers opinion on how public transport operation along Akure-owo axis can be improved upon. The analysis revealed that 49.1% of the passengers suggested training of driver, 19.6% of them agreed on compliance with road safety rules and orders, 17.9% opined regular maintenance of vehicle and others (13.4%) suggest reduction in the cost of transportation and good drivers-passengers relationship. From the analysis, it is indicated that majority of the passengers opined that training of drivers will improve public transport in the study area. Corroborating the above, Olorunfemi (2013) noted that if drivers of public transport are well sensitized and educated about traffic rule, it will go a long way in reducing accident occurrences on the road.

Table 4: Methods of improving Public Transport

S/N	Ways of Improving Public Transport	Frequency	Percentage
1	Regular Maintenance of Vehicle	20	17.9
2	Training of Drivers	55	49.1
3	Compliance with Road Safety Rules and Orders	22	19.6
4	Others	15	13.4
	Total	112	100

Source: Authors Field Work, 2017

6. Conclusion and Policy Implications

This study has carefully assessed the Passengers Satisfaction of Public Transport System In Akure-Owo Axis, Nigeria and findings revealed price of public bus is cheaper compare to other vehicle and majority of the passengers agreed that training of the drivers, follow by compliance with road safety rules and order will improve public transport system in the study area. Findings also indicated that passengers along Akure- Owo axis did not satisfied with the following service indicators: Competence of drivers, condition of vehicle, reliability, overloading and over speeding, drivers' altitude, compliance with road safety rules and order, cost charge per trip.

To solve the issues, National Union of Road Transport Workers (NURTW) and other transport unions should partner with the Federal Road Safety Corps (FRSC) and educational institutions that are major in transport management and planning to conduct periodic training, test and seminal for public bus drivers. This will enhance their performance, reliability and improve drivers' altitude on how to relate properly with passengers while engaging

in their day-to-day activities. FRSC should regulate and check the conditions of public bus before it is being allowed to be used for public use, most especially for the movement passengers. This will reduce unnecessary delay that may arise as a result of breaking down of vehicle while on transit. Similar to the above, there is need to strengthen the activities of FRSC to regulate the loading and speeding of public buses. This will reduce the number of accident occurrences on the highway.

To ensure that our road is free from accident, FRSC should ensure that drivers' compliance with road safety rules and orders. It should be noted that in some cases, some FRSC officials do take bribes from drivers that contravene the safety rules. In order to checkmate this, the citizens (passengers) should be empowered through whistle blowing approach by reporting such incidents to the head of operations and anti-corruption agencies. This will further bring sanity to road transport sector and lead to accident free society. The public and private stakeholders including transport research institute should come together and device a scientific method through which transport cost per trip can be charged. This will end the constant inflation of transport cost commonly introduce by transport unions in the country.

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