



# **A**SSessment of the Quality of Interstate Road Transport Service in Minna, Niger State

## **ABSTRACT**

This study focuses on assessing the quality of interstate road transport service in Minna, Niger state using SERVPERF and IMPORTANCE PERFORMANCE ANALYSIS (IPA). A sample of 301 passengers was used for the study, while proportional stratified

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## **INTRODUCTION**

**N**igeria, a country with over 200 million people shared between thirty-six (36) states including a federal capital territory, is faced with the challenge of rapid urbanisation and increasing population. Just like many other developing nations, the public transport system has not been efficient enough to cater for the increasing transport demands, as severe pressure is being placed on the already weak transportation system. This was well summarised by Solanke (2013) where he described the state of urban transportation in Nigeria as chaotic, complex and intractable such that some cities are at a level of relative



immobility due to the increasing rate of urbanisation.

While there are different means of road public transport system in Nigeria offering different types of services, the interstate road public transport stands out as an important type of intercity public transport service that involves movement of people and goods between cities located in different states within the nation, for variety of purposes (Amamilo, Wekpe, & Ajayi, 2017). Interstate transportation serving as a spatial link of a derived demand, therefore, provides the means by which space is overcome in order to achieve the required good(s) and/or

random sampling was used to compose the sample size for each park. Questionnaires were administered to the passengers for data collection. Structured questionnaire was used to collect data on level of satisfaction with services provided. Mean, frequencies, tables and charts were used for analysis. It was found that about 15.3% of users were very unsatisfied, 27.6% were unsatisfied, 32.2% were neither satisfied nor unsatisfied while 24.9% were either satisfied or very satisfied with quality of service. Long waiting time, bad terminal facilities, safety of luggage, congestion at parks, bad driver attitude, uncomfortable vehicles and overloading were the major issues users faced with inter-state services. Based on the findings, it was recommended that service providers should look to decreasing waiting time by sticking to schedules where available, improve on provision and maintenance of terminal facilities and orient drivers to curb bad attitudes.

**Keywords:** Assessment, Quality, Interstate Road, Transport Service, Niger State



service(s). Locations far apart are now connected, thereby opening opportunities for trade, communication and other vital activities relevant for the growth of the nation and the economy.

The significance of inter-state public transport services just like other public transport modes in a successful transport system is derived from the fact that it provides mobility for everyone especially those who cannot afford to buy a car, helps in creating and maintaining liveable communities by relieving highway congestion and assuring long term sustainability in terms of resource consumption and the environment (Paul, 2001).

Despite the series of researches on public transport service quality and customer satisfaction, there are still indicators suggesting poor quality of interstate public transport services in Minna as issues like overloading, bad attitudes of drivers, rough and dangerous driving, vehicles poor appearances, insecurity, safety, unreliability, long waiting times at parks, lack of proper shelter or waiting areas and other basic facilities at parks and dirty terminal environment are still witnessed. The objective of this study therefore is to assess the level of satisfaction of customers with the inter-state public transport services in Minna, Niger State

## **LITERATURE REVIEW**

The concept of service quality is difficult to define in a single definition as it may refer to several different areas such as quality of the output, process, delivery system and even quality as an organisations general philosophy (Nanavati, 2014) In order to understand what service quality is, it is important to know what service is. The term ‘Service’ has been described as “the business transaction that take place between a donor (Service provider) and Receiver (Customer) in order to produce an outcome that satisfies the customer” (Ramaswamy, 1996).



Service quality on the other hand has no universally accepted definition which is why researchers have defined service quality in different ways with most focusing on meeting customers' need, requirements and expectations. Kotler & Armstrong (2006) for example, defined service quality as “the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs” while (Parasuraman, Zeithaml, & Berry, 1985) defined service quality as “the delivery of excellent or superior service relative to customer expectations.” With most definitions pointing to customer expectation and satisfaction, it can be implied that the customer or users of the services are the best instrument that can be used to measure service quality.

In order to identify potential strengths and weaknesses and also ensure efficient and effective provision of public transport services, there is the need to evaluate or assess the quality of service rendered (Beirao & Cabral, 2006). Several methods have been utilized in assessing the quality of service of transport industries but the SERVQUAL, SERVPERF and IPA stand out. The SERVQUAL scale was proposed by Parasuraman, Zeithaml and Berry in 1985 and it comprises of five dimensions of service quality construct which are: tangibles, reliability, responsiveness, empathy and assurance. It is a multi-scale model where quality of service is measured from the customer or consumers' perspective by treating quality as a gap between customers' expectation and perception. (Ingaldi, 2016) . The SERVPERF on the other hand is a “performance-only” variant of the SERVQUAL having the same dimensions as the SERVQUAL model but focusing on the customer perception of the service without taking into consideration the ‘expectations’ of the users or customers (Jain & Gupta, 2004). Another method used is the Importance-performance analysis (IPA) which is a quantitative method that utilizes a visual



matrix, produced by plotting users' ratings of how important a service is or values against satisfaction ratings or values. It is employed in the measurement of users' perception and feelings and importance about an item or service characteristics (Martilla & James, 1977). A benefit of IPA is that it presents a clear picture showing a comparison of how important and satisfactory a service or services are to the customer, user or clients. (Levenburg & Magal, 2004). The matrix is shown in figure 1 below

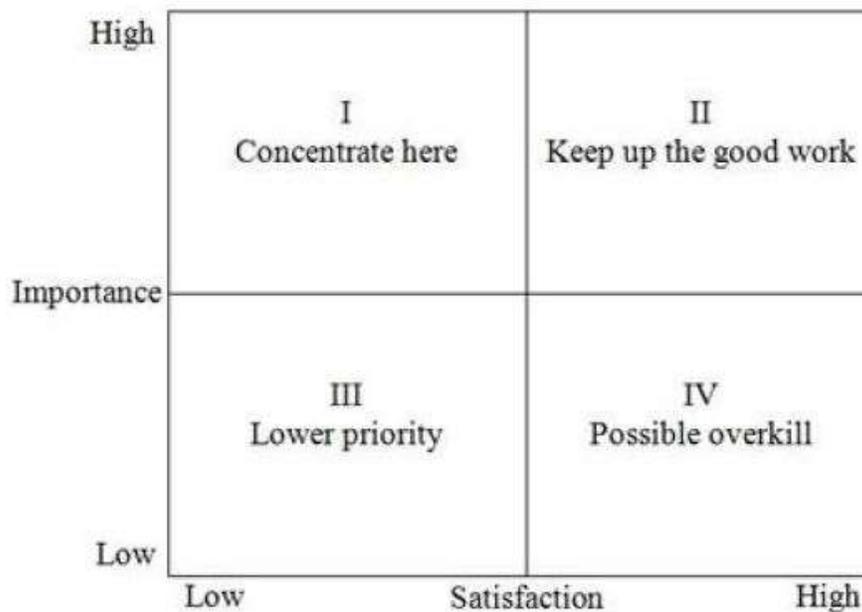


Figure 1 The IPA Matrix

Source: (Warner, Chaudhary, & Lamm, 2016)

From the above matrix, elements that falls in the “Concentrate Here (high importance and low satisfaction)” quadrant are those where resources needs to be focused on, if not, clients will be lost; resources should continue to be focused on the "Keep up the good work" (high importance and high satisfaction) quadrant to maintain client satisfaction; and resources can be allocated away from the "Lower



priority" (low importance and low satisfaction) and "Possible overkill" (low importance and high satisfaction) quadrants (Levenburg & Magal, 2004; Martilla & James, 1977)

Previous researches relating to public transport quality of service have mostly focused on accessing intra-state, intercity and intra-city public transport services and some limiting the study to a particular service provider. A good example is one carried out by Atoyebi et al. (2015) where analysis of intra-city public transport system at Ojuelegba park in Lagos was done by selecting five (5) performance indicators namely cleanliness, safety, availability, dependability and functionality in measuring the quality of service. Ibrahim (2015) on the other hand, assessed urban bus services in Minna using nine (9) performance indicators and focused on services provided by the Niger State Transport Authority (NSTA).

Olorunfemi & Adeniran (2018) assessed passengers' satisfaction of public transport system in Akure using questionnaires and field observations for data collection. Data analysis was done using descriptive tools. The study revealed that driver incompetence, attitude and lack of compliance with safety rules, vehicle condition, overloading and over-speeding were major issues the passengers were dissatisfied with

## **METHODOLOGY**

Descriptive survey method was adopted for this study. Twenty-two (22) service quality variable shared among five dimensions (as shown in table 1 below) were used to assess the quality of service of seven major inter-state motor parks in Minna. The sample size was for the was determined using the Taro Yamen's formula  $\left[ n = \frac{N}{1+N(e)^2} \right]$

Where,



$n$  represents the sample size;

$N$  represents the total number of the passengers carried daily; and “ $e$ ” represents error term of (0.05).

Purposive stratified random sampling was further used to allocate sample size for each of the seven parks based on their proportion of the entire population. This was calculated using Bowley’s proportional method of allocating sample to strata (Amamilo, Wekpe, & Ajayi, 2017)

which is given as  $n_x = \frac{N_x \times n}{N}$  Where  $n_x$  represents the sample size for the particular park  $x$ ;

$N_x$  represents the number of passengers for park  $x$ ;

$n$  represents the total sample size of the study while  $N$  represents the total passenger population.

Based on the results from the sample size calculation, 301 structured questionnaires were administered to users of service (passengers) to measure their level of satisfaction with each of the 22 service quality variables at their respective parks.

In analysing the passengers’ responses, the mean of the scores was calculated and the resultant overall mean of selected attributes were then computed and analysed using the Importance Performance Analysis (IPA) technique.

Table 1. Service quality variables and dimensions used for measurement.

| Dimensions  | Variables  |
|-------------|--|
| Tangibility | TA1: The vehicles are good looking and well maintained |
|             | TA2: The vehicle seats are spacious and comfortable    |



|                       |   |
|-----------------------|---|
|                       | <p><b>TA3:</b> Terminal facilities (like shelter, seats, toilets) are clean</p> <p><b>TA4:</b> Park environment is clean and well maintained</p> <p><b>TA5:</b> The drivers are well dressed and neat</p> <p><b>TA6:</b> Park environment is wide and not congested.</p>  |
| <b>Reliability</b>    | <p><b>RL1:</b> Vehicles leaves and arrives at agreed stops or parks.</p> <p><b>RL2:</b> Vehicles are always available at parks</p> <p><b>RL3:</b> There is safety and security for passengers carried</p> <p><b>RL4:</b> Goods are safe and secure.</p> <p><b>RL5:</b> Vehicles hardly breakdown on road during journey</p> <p><b>RL6:</b> Employees(drivers/staffs) at park are ready to help whenever you have problems and challenges</p> <p><b>RL7:</b> Fare prices are affordable and not usually inflated</p> |
| <b>Assurance</b>      | <p><b>AS1:</b> Staffs are courteous at parks</p> <p><b>AS2:</b> Drivers have good driving skills</p> <p><b>AS3:</b> Drivers are friendly and have good manners</p> <p><b>AS4:</b> Drivers obey traffic rules (e.g., doesn't exceed speed limits, disobey traffic light, nor call while driving)</p>   |
| <b>Responsiveness</b> | <p><b>RP1:</b> Drivers are always willing to help you during trips when need arises.</p> <p><b>RP2:</b> Driver agree to stop during journey to allow passengers satisfy basic pressing needs (e.g. to</p>   |



|                |   |
|----------------|---|
|                | relieve themselves or eat especially during long journeys)  |
| <b>Empathy</b> | <b>EM1:</b> Vehicles are operated at convenient operating hours   |
|                | <b>EM2:</b> Drivers and park staffs have passenger interest at heart                                      |
|                | <b>EM3:</b> Special care is given to the disadvantaged for example, the disabled, old, children and women |

### DATA ANALYSIS

The results are presented in IPA matrices for clarity and interpretation

### Service Quality at The Niger State Transport Authority Park

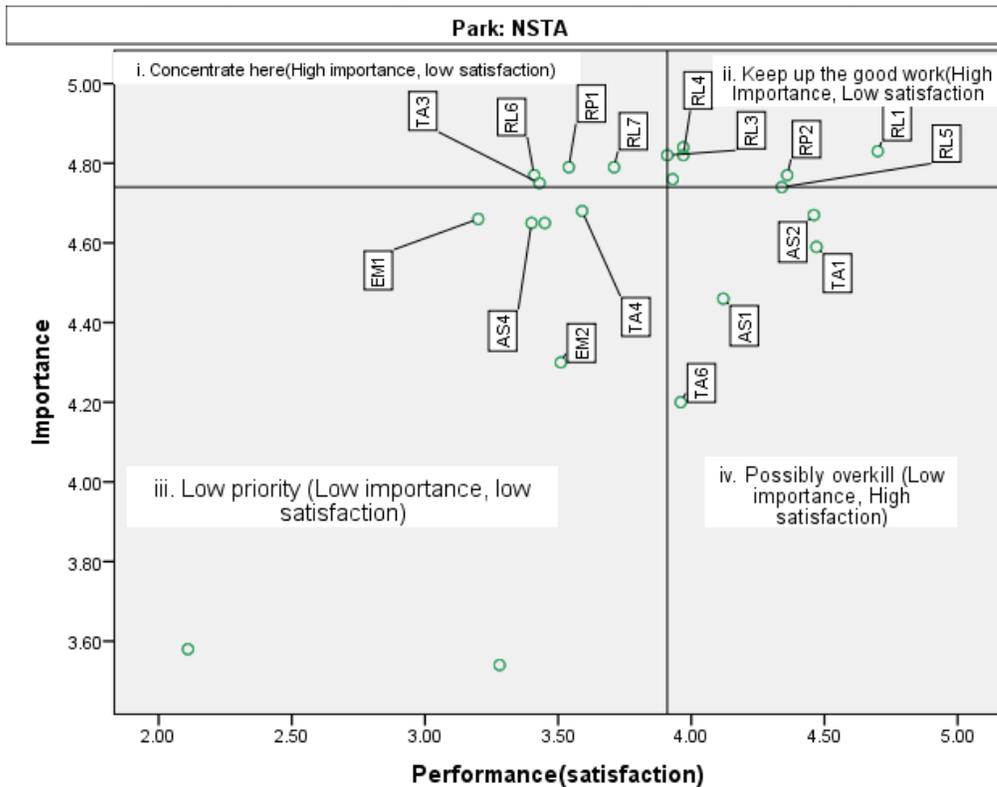


Figure 2. IPA Matrix for NSTA



Source: Author's Survey (2021)

The figure 2 above shows that the NSTA were lacking in some areas of Responsiveness, Reliability, and Tangibility, while doing excellently well in others. TA3(cleanliness of terminal facilities), RL6(drivers/staff readiness to help passengers when they have problems), RP1(willingness of drivers to help during trips) and RL7(affordability) are the areas the organization needs to focus on and improve in order to attract and retain customers.

The NSTA should keep up the good work in areas of RL3 and RL4 (safety and security of passengers and goods), RL2 (availability of vehicles at park), TA2 (comfortability of vehicles), RL5 (lack of frequent breakdown of vehicle on roads), RP2 (Drivers stopping during journey to allow passengers relieve themselves), RL1 (leaving and arriving at agreed stops).

EM1(convenient operating hours), TA4(cleanliness of park environment), AS4(obedience to traffic rules), AS3(friendly nature of drivers and good manners), EM2(drivers having passengers' interest at heart, EM3(care for disadvantaged), and TA5(drivers dressing) were areas which are of low importance to the customers and also low satisfaction. AS1(Courteousness at parks), AS2(Good driving skills), TA1(good looking vehicle), TA6(spacious park environment) were areas of low importance and high satisfaction.

Resources therefore should be redirected from variables that fall under quadrant 3 and 4 to those in the first and second quadrants.



## Level of Satisfaction with Inter-State Service at Peace Mass Transit Park

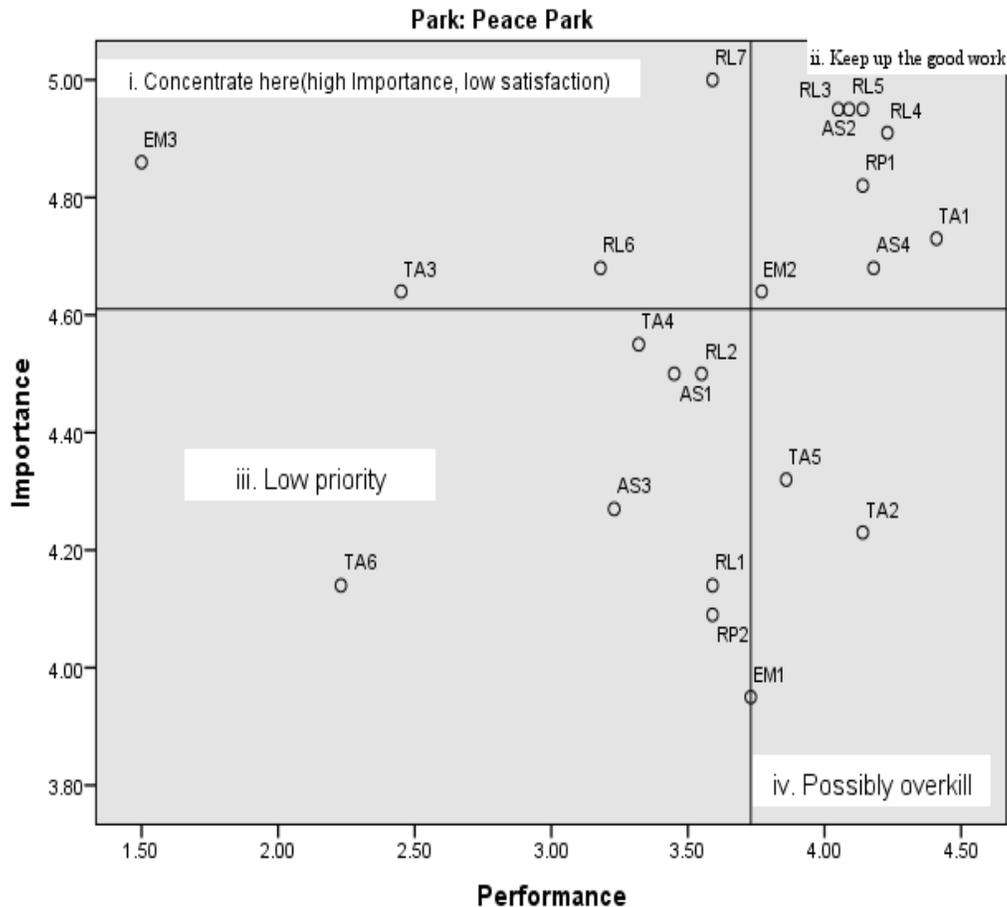


Figure 3. IPA Matrix for Peace Mass Transit

Source: Author's Survey (2021)

From figure 3 above, it was discovered that Peace Mass Transit should concentrate on improving the quality of TA3(condition of the terminal facilities), RL6(readiness to help customers when they have challenges), RL7(regulate fare prices) as well as EM3(special care for the disadvantaged) while redirecting resources from items that fall under quadrant IV (drivers dressing and seats comfortability).



## Level of Satisfaction with Inter State Service at Kpakungu Park

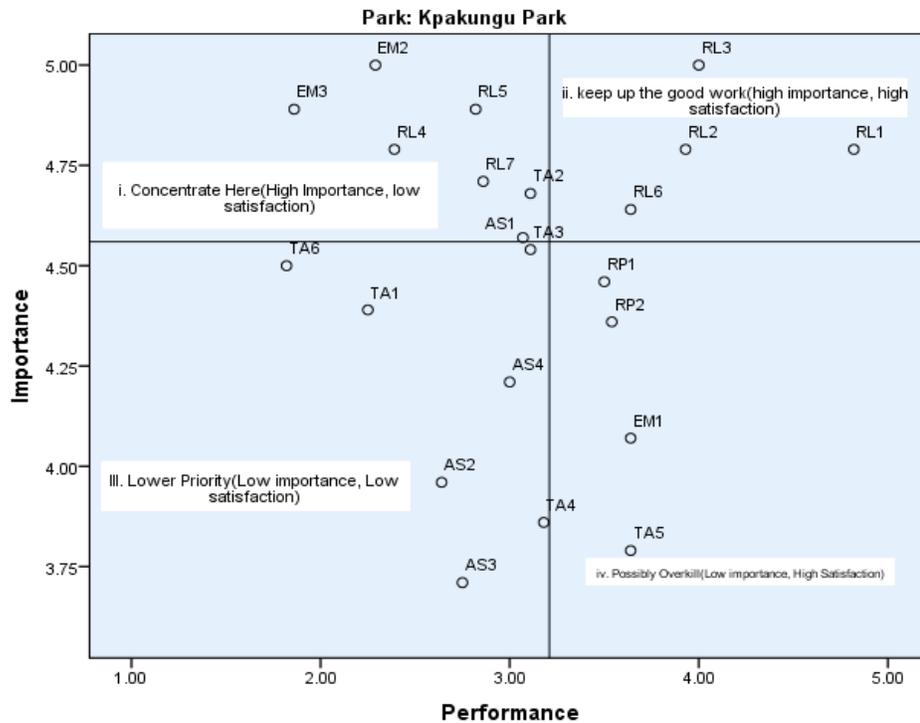


Figure 4. IPA Matrix for Kpakungu Park

Source: Author's Survey (2021)

From figure 4 above, it was revealed that the Kpakungu park needed to improve on EM2(passenger's interest at heart), EM3(special care for disadvantaged), RL4(Safety and security of goods), RL5(vehicle breaking down on roads), RL7(fare prices), AS1(courteousness of staff), TA2(comfortability of vehicles), TA3(cleanliness of terminal facilities) as these fell under the quadrant I (concentrate here).

RL3(safety and security of passengers), RL2(availability of vehicle at parks), RL1(vehicles leaving and arriving at agreed stops), RL6(readiness of employees to help during needs) fell under the quadrant II, meaning these services are of high importance and passengers are also satisfied with them.



TA6(width of terminal), TA1(vehicle looks and maintenance), TA3(cleanliness of terminal facilities), TA4(cleanliness of terminal environment), AS4(obedience to traffic rules), AS2(drivers driving skills), AS3(friendliness and manners of drivers) fell under the quadrant III which are areas of low importance and low satisfaction to customers.

The unions at Kpakungu park are therefore required divert resources invested on elements in quadrant III and quadrant IV to improving those in quadrant I and maintaining those in quadrant II

Level of Satisfaction with Inter State Services at Mobil Park

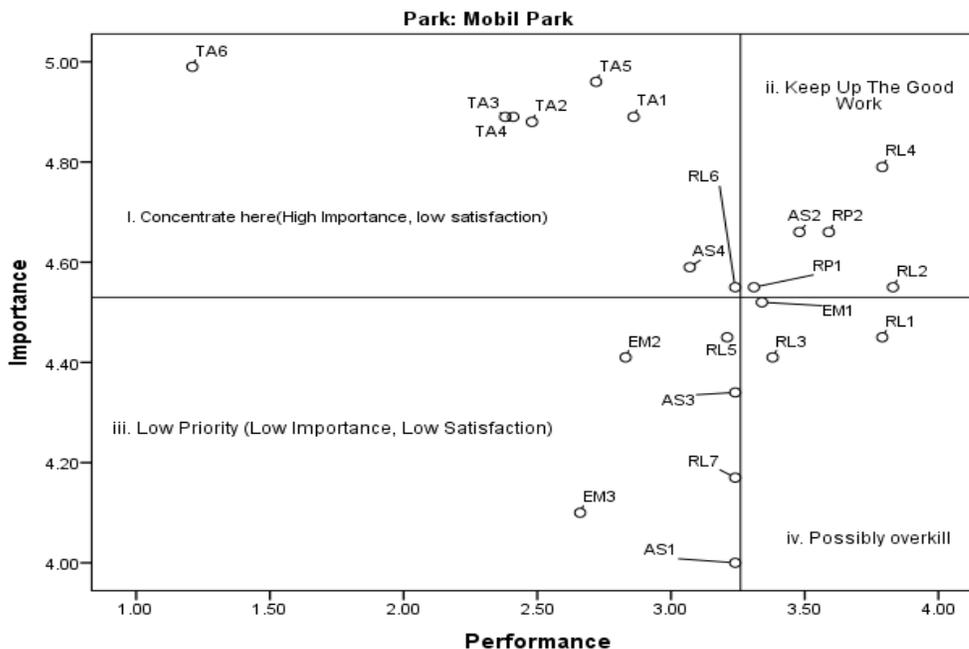


Figure 5. IPA matrix for Mobil park

Source: Author's Survey (2021)

Figure 5 above shows that the Mobil park needs to concentrate resources on improving all tangibility variables (TA1, TA2, TA3, TA4, TA5, TA6), AS4(cleanliness and maintenance of park environment), RL6 (readiness to help passengers at park).



RL4 (safety and security of goods), AS2 (drivers' driving skills), RP2(stopping during journeys for passengers' needs), RL2(availability of vehicles at park), RP1 (willingness of driver to help passengers during trips) falls under the second quadrant which shows that these items are of high importance while also satisfying the passengers. EM2(Drivers and park staffs have passenger interest at heart), RL5(vehicle breaking down on roads), AS3(friendliness and manners of drivers), RL7(affordability of fare), EM3(giving special care to disadvantaged), AS1(courteousness of staffs at park) falls under the third quadrant which implies that these items are of low importance to the passengers and also of low satisfaction. While items EM1(vehicle operating hours), RL3(safety and security of passengers), RL1(vehicles leaving and arriving at agreed stops) which falls under the fourth quadrant are items of low importance which the customers are satisfied with.

Level of Satisfaction with Inter-State Service Rendered at Kure Market Park

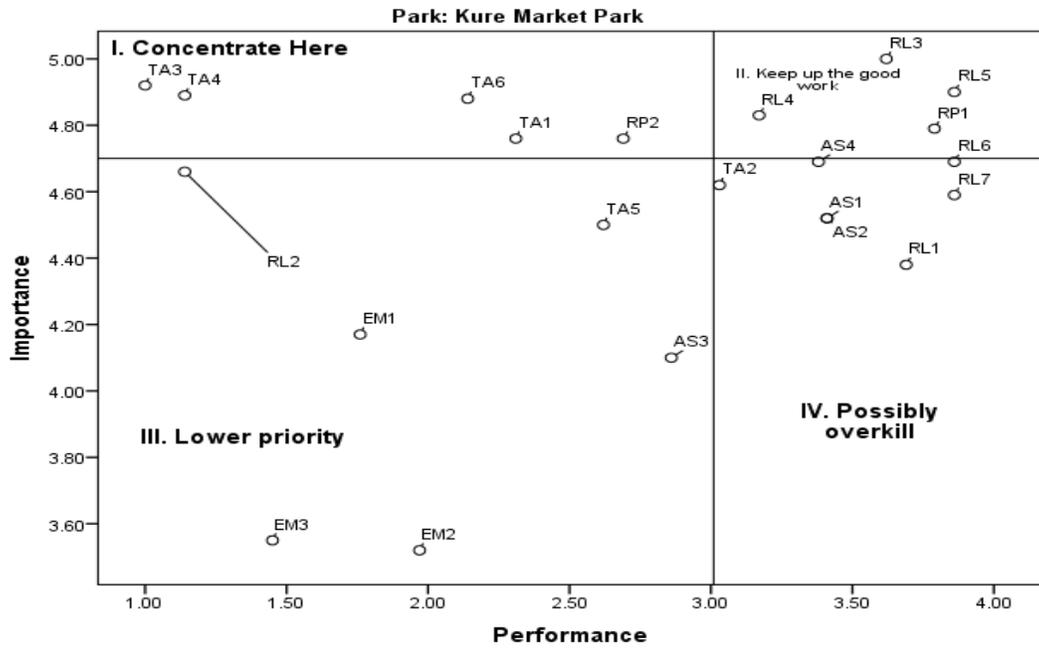


Figure 6. IPA Matrix for Kure Market Park  
 Source: Author's Survey (2021)



From figure 4.6 above, it can be seen that the passengers are not satisfied with TA1(vehicle appearance), TA3(cleanliness of terminal facilities), TA4(cleanliness of terminal environment), TA6(width and congestion at terminal), RP2(responsiveness of drivers to passengers need during trips) even though they view them as very important. It also shows that the customers are satisfied with RL3(safety and security of passengers), RL4(safety and security of good), RL5(break down of vehicles on roads) which they also view as very important. The rest of the variables fall under the third and fourth quadrant which are those of low priority and/or importance to the customers.

### Level of Satisfaction of Users with Interstate Transport Service Provided at Minna Central park

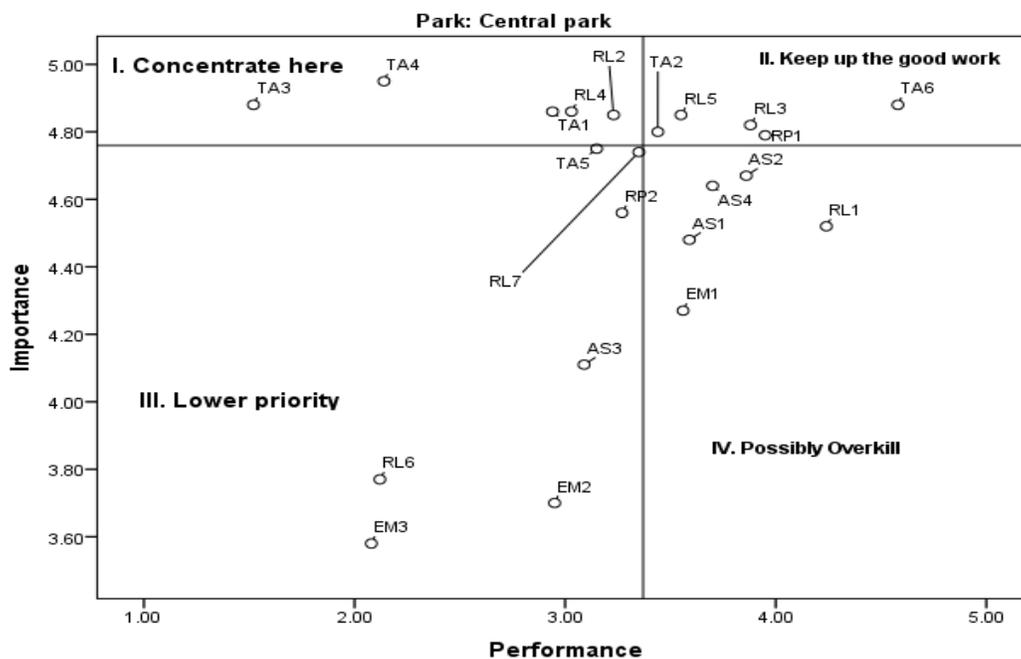


Figure 6. IPA Matrix for Minna Central Park

Source: Author's Survey (2021)

From the IPA Matrix in figure 6 above, it can be seen that the Minna Central Park are lacking in areas of TA3(cleanliness of terminal facilities), TA4(cleanliness of terminal environment), TA1(vehicle appearances), RL4(safety and security of goods), RL2(availability of vehicles at parks) which are of great importance to the passengers.



The chart also revealed that the passengers were satisfied with TA2(spaciousness and comfortability of vehicles), RL5(lack of breakdown of vehicles on the road), RL3(safety and security of passengers), TA6(spaciousness and congestion at park), RP1(prompt response of drivers to passengers' needs) which they view as important.

On the other hand, the passengers do not see TA5(drivers' dressing), RP2(responsiveness of drivers to passengers' need during trips), RL7(fare prices), AS3(friendliness and manner of drivers), RL6(readiness of staffs at terminals to help passengers), EM2(vehicle operating hours), EM3(special care for disadvantaged) as important and also do not derive satisfaction from them.

AS1(courteousness of staffs at parks), AS2(drivers' driving skills), AS4(drivers' obedience to traffic rules), RL1(departure and arrival of vehicle at agree stops), EM1(operation of vehicles at convenient hours) are areas which the customers do not see as important but are satisfied with the way they are.

### Level of satisfaction with inter state service at Abdulsalaam Park

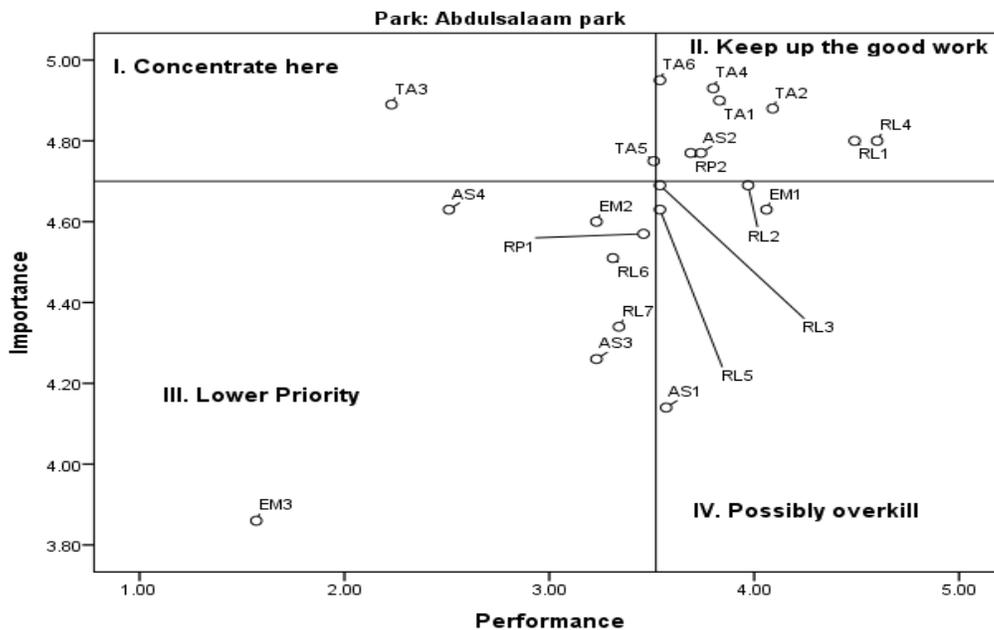


Figure 8. IPA Matrix for Abdulsalaam Motor park

Source: Author's Survey (2021)



Figure 8 above shows that the users are not satisfied with TA3 and TA5 which they view as important. Resources should be redirected from items quadrant III and IV to improving items in quadrant I and maintaining the items in quadrant II

TA6(spaciousness and congestion at park), TA4(cleanliness of park environment), TA2(spaciousness and comfortability of vehicle seats), TA1(vehicles are good looking and well maintained), RL1(departure and arrival at right time), RL4(safety and security of passengers), RP2(drivers keeping to schedule and promises), AS2(drivers driving skills) are areas where the company should keep up the good work as they are important and satisfy the users.

Overall Level of Service of Inter-state public transport in Minna Niger state

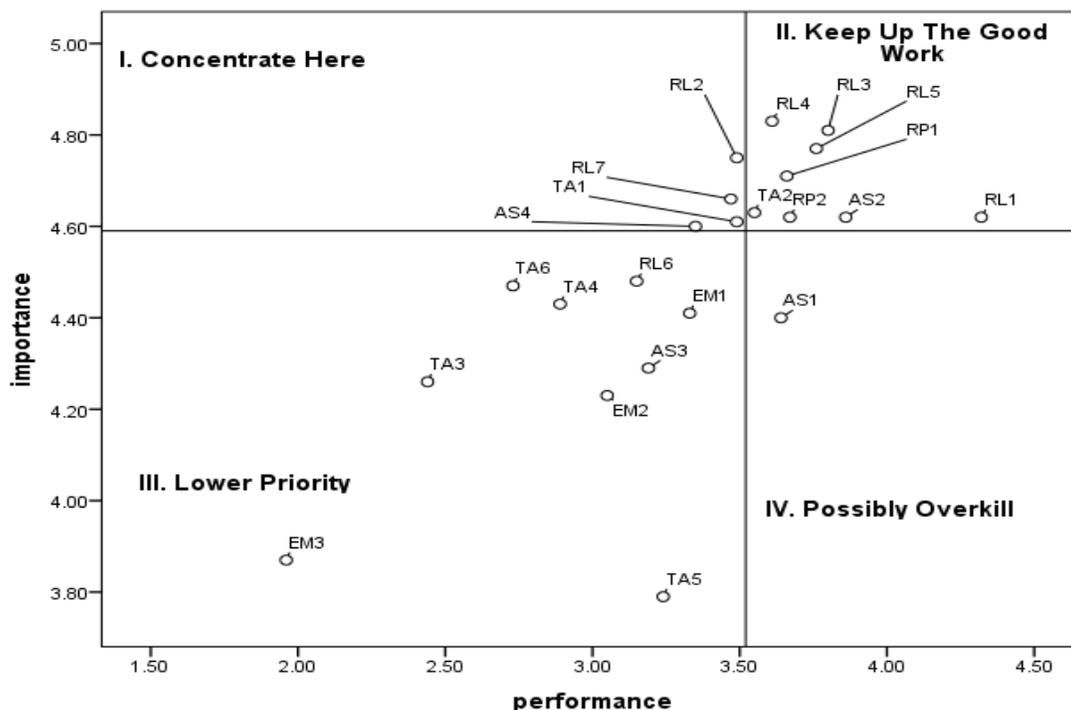


Figure 9 IPA Matrix showing the overall level of service of interstate public transport in Minna

Source: Author's Survey (2021)



Figure 9 above shows that AS4(drivers' obedience to traffic rules), TA1(vehicle appearances), RL7(fare prices), RL2(availability of vehicles at parks) were important areas the transport providers were lacking and which needs urgent improvement. Items in quadrant II needs to be maintained as the passengers view them as important and are very satisfied with the service. Resources should then be diverted from those in quadrant IV to improving on those in quadrant I and maintaining items in quadrant II, as the item in quadrant IV are of low importance and low satisfaction.

This agrees with the study carried out by Adeniran and Olorunfemi (2018) who observed that over speeding, driver attitude, condition of vehicles, cost charge per trip (fare prices) were issues the passengers were unsatisfied with.

Table 2. Overall Satisfaction Based on Ownership Type

| Ownership Type   |                     | Frequency | Percent |
|------------------|---------------------|-----------|---------|
| Government Owned | Very unsatisfactory | 5         | 5.4     |
|                  | Unsatisfactory      | 1         | 1.1     |
|                  | Average             | 39        | 42.4    |
|                  | Satisfactory        | 18        | 19.6    |
|                  | Very Satisfactory   | 29        | 31.5    |
|                  | Total               | 92        | 100.0   |
| Union Operated   | Very Unsatisfactory | 41        | 21.9    |
|                  | Unsatisfactory      | 82        | 43.9    |
|                  | Average             | 50        | 26.7    |
|                  | Satisfactory        | 9         | 4.8     |
|                  | Very Satisfactory   | 5         | 2.7     |
|                  | Total               | 187       | 100.0   |
| Private          | Average             | 8         | 36.4    |



|  |                   |           |              |
|--|-------------------|-----------|--------------|
|  | Satisfactory      | 8         | 36.4         |
|  | Very Satisfactory | 6         | 27.3         |
|  | <b>Total</b>      | <b>22</b> | <b>100.0</b> |

Source: Author's Survey (2021)

Table 8. above shows the overall level of satisfaction of users with the different ownership and management bodies in Minna. The government owned interstate public transport was viewed favourably by 51.1% as 19.6% were satisfied and 31.5% were very satisfied, 42.4% viewed the service as average while 6.5% were either very unsatisfied or unsatisfied. The union operated ranked the lowest as about 65.8% of the users viewed the service rendered as unsatisfactory or very unsatisfactory, 26.7% as average and 7.5% as satisfactory or very satisfactory. As for the privately owned and operated interstate transport company, 63.7% of its users viewed the services rendered as either satisfactory or very satisfactory, while 36.4% viewed it as average.

This result shows that the quality of service provided by government as well as private owned transport organisation was more satisfying to customers than those of the union operated.

In analysing passengers' satisfaction with overall quality of service in the state, results showed that 15.3% of the users studied were very unsatisfied with the quality of service, 27.6% were unsatisfied, 32.2% were neither satisfied nor unsatisfied, 11.6% were satisfied and 13.3% were very satisfied with the level of services. This shows that majority of the users were either unsatisfied or very unsatisfied with the quality of service in the state.

## **CONCLUSION**

Based on the findings from the research, it is evident that the overall quality of interstate transport service in Minna is poor as about 42.9%



of the users studied were either unsatisfied or very unsatisfied with the interstate transport services rendered. The union operated parks were discovered to have the lowest quality of service while the government and Private operated parks offer better and more satisfying services.

## **RECOMMENDATIONS**

Based on the findings, the following recommendations are put forward

1. Operators are Mobil, Kure Market, Minna Central parks should focus on improving the items in the tangibility dimension. Therefore, resources should be diverted to improving cleanliness and maintenance of park environment, relationship with passengers at parks, vehicle appearance, comfortability of vehicles, terminal facilities, drivers' looks and width and congestion at parks.
2. The NSTA should improve on the cleanliness of terminal facilities, drivers'/staff readiness to help passengers when they have problems, willingness of drivers to help during trips and affordability of service. As these are areas they are lacking as presented in Figure 2
3. The Peace Mass Transit is advised divert resources from items in quadrant III and IV in Figure 3 above to improving on condition of the terminal facilities, readiness to help customers when they have challenges as well as regulating fare prices. Special considerations should also be given to the disadvantaged in order to satisfy all categories of people.
4. The operators at Kpakungu park should improve on areas of passenger relationship, giving special care for disadvantaged, safety and security of goods, prevent break down of vehicles on



roads by proper maintenance, regulate fare prices, courteousness of staff, comfortability of vehicles, cleanliness of terminal facilities.

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