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APPRAISAL OF COMMERCIAL TRICYCLES OPERATION AS A MEANS OF PUBLIC MOBILITY IN KANO METROPOLIS, NIGERIA

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ABSTRACT

One of the most serious problems of urban centers of developing countries today is that of mobility, which is closely associated to poverty. The problem is generally manifested in various forms, which include shortage of vehicles, traffic congestion, delays, poor road conditions, accidents and environmental pollutions. As part of the government's effort in Nigeria to solve mobility problem occasioned by high poverty level in many cities, the Federal Government of Nigeria in year 2002 introduced the use of tricycles as a mode of public transportation in some Nigerian cities with the intention of alleviating urban poverty and at the same time solving the mobility problem of the urban residents. The paper therefore appraises the operational performance of this new mode in Nigeria with a view to determine the success or otherwise of the mode in solving urban mobility problem. The paper reveals that the mode to some extent achieves the dual objectives of providing jobs for many unemployed urban populace and also contributes towards improving urban mobility. However, the operation of the mode is currently characterized by two major operational problems. The first is maintenance problem which, manifests in form of inadequate spare parts and lack of skilled auto- technicians to handle the repairs and maintenance. The second problem has to do with operating environment which is not conducive for the operation of the new mode. It was therefore revealed that the underlying factor responsible for these problems is inadequate planning before the implementation of the project. The paper finally suggests some policy actions that could be taken to guarantee successful implementation of the urban mobility improvement programme. It therefore concludes that the issues emanated from this appraisal will not only provide guides for transport policy makers in Nigeria but also in other countries with similar socio-economic development experience with Nigeria.

Keywords: tricycles, operation, operators, mobility, urban centres, transportation

INTRODUCTION

One of the major problems confronting urban residents across the world is mobility. Even, in the developed countries where the level of motorization is very high, traffic congestion has created what Ogunsanya (1993) referred to as state of "relative immobility". In developed countries, the chain reaction of the problem starts with increase in standard of living of urban dwellers which results to high car ownership level. The high car ownership brings about increased motorization level without correspondent increase in transport infrastructure, which consequently leads to traffic congestion.

In the case of developing countries, the problem of mobility is much more evident in the scarcity or inadequacy of transport facilities, particularly vehicles to meet the ever-increasing transport demand. Inadequate transport supplies create another dimension to

urban mobility problem in many cities of developing countries. It becomes obvious that, while developed countries are confronted mainly with traffic management problem due to too-many vehicular traffic flow on urban roads, developing countries in addition to this, are confronted with inadequate transport infrastructure and vehicles to meet the transport demand.

The above explains the reason why governments' efforts towards solving urban mobility problems differ from country to country and between developed and developing countries. In Nigeria, for example, the major cause of mobility is inadequate vehicle supplies to meet the transport demand of the urban residents. Although, there are cases of traffic congestion problem in major cities like Lagos, Ibadan, Porthacourt, Kano, Kaduna and Enugu. The mobility problem is caused mainly by insufficient and inefficient urban transport supplies. The majority of urban residents in Nigeria are living below poverty level, thus could not afford means of personal mobility, consequently depend on public transport services, which are not only inefficient but also not readily available. The problem has been persistent in Nigeria for the past two decades, which its numerous other attendants problems.

Over the years, successive governments have responded to the problem by introducing various policies and programmes toward ameliorating the problem. Among these policy programmes were introduction of Federal Urban Mass Transit Programme (FUMTP) in 1988, which later became Federal Urban Mass Transit Agency (FUMTA) in 1992. The agency was established to provide some regulation and grant some loans to urban transport operators so as to improve urban transport service delivery. However, the agency was eventually scrapped in year 2000 due to some management problem. The scrapping of FUMTA has left urban transportation system unregulated and without any serious government assistance in improving urban transport service delivery. The current government policy of private driven economy has worsened the mobility problem. The Federal Government's withdrawal of subsidies on fuel and cost of vehicles is not only aggravating urban transportation problem but also worsening the urban poverty. The need to arrest this situation informs the decision of the current democratic government to introduce some policy measures to solving urban mobility and poverty problems. One of such measures is the purchase and distribution of tricycles otherwise known as "Keke NAPEP" to urban residents in 2002 on loans to reduce unemployment rate and improve urban mobility. About four thousand (4000) tricycles were purchased by the Federal Government and distributed to different state governments, who in turn distributed them to urban residents (Steve 2005). The beneficiaries of this programme operate tricycles commercially as means of public transportation in many Nigerian cities.

The operation of tricycle, otherwise known as "KEKE NAPEP" is seen by the government as an important component of National Poverty Eradication Programme (NAPEP) of the current democratic government. It is therefore necessary to appraise the success and otherwise of the programme in order to identify area of improvement for its sustenance. Tricycle was first introduced by private individuals as a mode/means of public transportation in Kano 1983. The recent introduction of tricycle by the government was seen as a major response towards solving mobility problem in the city. Before then, various attempts at solving urban mobility problem did not yield the desired result. The introduction of tricycle was then seen by the public as a welcome development which would assist in ameliorating the urban mobility crisis.

Within the past two decades the mode was introduced, it has witnessed numerous operational problems and total neglect many times by successive administration in the state. However, in the more recent times, particularly in 2002, the current democratic government has rejuvenated the operation of tricycle as mode of public transportation. In that year alone 4,000 tricycle were injected into urban transportation system in the country. This marked the beginning of the spread of the mode to other towns and cities in Nigeria like Lagos, Kaduna, Ibadan etc.

Apart from the Federal Government's initiatives, the Kano State Government (KSG) in 2005 also purchased 500 tricycles for public transportation in Kano city. This singular action of KSG, has made Kano the city with Largest operators and users of tricycles in Nigeria. The 500 tricycles injected into the city's transportation system were distributed to various individuals to operate on specific routes. The maintenance of these tricycles is carried out by Kano State Transport Authority (KSTA). KSTA is a government owned Transport Company charged with responsibility of providing mass transit service to the people. The city of Kano is predominantly dominated by Muslims where sharia laws are relatively operational. The new sharia law passed recently by the Kano State Government has forbidden women from using motorcycle for public mobility. Instead they are allowed to use tricycle. The introduction of this Islamic law has added a new dimension to the operation of tricycle in the city. The use of tricycle in the city currently restricted to only the women. This development has limited the modal choice of women for urban mobility and created some untold hardship on the women population. In an attempt to solve this problem, the KSG has ordered for the purchase of additional one thousand (1000) tricycles. However, the law is yet to be fully obeyed as there are oppositions by non-muslims and motorcycle operators in the city. The programme has been on for the past four years, it therefore becomes necessary to appraise the success and otherwise of this programme in improving urban mobility and alleviating poverty of urban residents. This paper therefore discusses the results of the appraisal and the implications for current and future urban transportation programme as well as recommending some policy measures to improve mobility and poverty in Nigerian cities.

METHODOLOGY

Study Area

The study area is Kano metropolis, it consists of the great ancient Kano, which comprises of Dala, municipal and Gwule Fagge. Other parts of the metropolis include Taraumi and surrounding settlement of Ungogo and Kumbotso. The city is located in the northern part of Nigeria. It is the largest northern city in Nigeria and ranks third largest city in Nigeria after Lagos and Ibadan. The metropolitan Kano is the main commercial and industrial centre of the northern Nigeria. Its population is estimated over 2 million people with an estimated total land area of 212 square miles. The city remains the dominant commercial and economic centre of the northern Nigeria.

The socio-cultural activities are typical of what obtains in many other northern cities in Nigeria with exception of Kaduna and Jos. This implies that whatever obtains in a metropolitan Kano is likely to reflect what is obtainable in other cities of northern Nigeria. The above informs the choice of metropolitan Kano for this study. Figure 1 below shows the built-up area of Kano metropolis. A survey of tricycle operators was carried out to collect operational data required. The operational data collected include, number and name

of routes plying, number of passengers carried per trips, number of trips made in a day, the cost of operation, and maintenance, the availability of spare parts, fare structure and policy. Other information are maintenance policy, earning per kilometer or per day, length of kilometer covered everyday, major problems associated with the operation. In addition to this, questionnaires were used to elicit information about the users' perception of the operational performance of the tricycle in the city. To collect these data, two sets of structure questionnaire were designed and administered on the users and operators of tricycle at the major tricycle parks within Kano metropolis. A park is defined as a location where tricycle operators station their tricycle either for passenger loading or maintenance/repair of their tricycle. A tricycle park is considered major when at the time of survey not less than 10 tricycle operators were found.

Based on this, 6 major locations were identified as the major tricycle parks in the city. A systematic random sampling of one out of every five respondents was adopted for operators, while one out of ten respondents was adopted for the users. This amounts to 150 and 213 questionnaires administered for two categories of respondents respectively. In addition to this, an oral interview was conducted on the unions/association officials of tricycle operators to elicit information on the structure, organization and existing regulation if any governing the operation of tricycle in the metropolis.



Figure 1 Map of Kano City

RESULTS AND DISCUSSION

This section attempts to analyze the operational performance of the tricycle using the information collected from users and operators. An operator charges only twenty naira (N20.00) per drop an equivalent of 13 cent of US currency. The government does not interfere in the regulation of fare, which is determined largely by the transport union and other prevailing economic situation in the city. It was also discovered that tricycle operation has assisted in providing employment opportunities to the jobless youths in the city. For instance, between 3 and 4 persons are engaged in the operation of one tricycle per day. This is possible because operators usually run two or three shifts in a day.

A tricycle operator is expected to make a daily delivery of four hundred naira (N400.00), just about three US dollar to the KSTA, that leased out the tricycles. In case of private individual leasing out tricycles for commercial operation, a sum of six hundred naria (N600.00), an equivalence of 4.5 US dollar is delivered daily to the owner on each tricycle used for operation. The amount delivered to KSTA was considered very low, but, since the main objective of the government introducing the mode was to alleviate poverty and improve urban mobility, the amount was still accepted by the authority. Table 1 shows the operational characteristic of tricycle in the city.

Our investigation also reveals that, the operation of tricycle was not limited to urban access routes. The Operators ply the same routes with the buses, this in many cases results into conflicts between operators of tricycles and buses. However, those tricycles recently distributed by KSG had their operation limited to only the access and other remote areas of the city not covered by the buses. In terms of regulation, no serious regulation is put in place by the government to regulate and control the activities of the tricycle operators. This in many instances results to chaotic, uncoordinated, inefficient and poor public transportation system. There is generally no standard in the entire operation of transport in the city.

Table 1: Operational Characteristics of Tricycle

Av. Daily Trips Per Operators	v. Daily pasg. Carried Per Operator	Est. Pop. of Functional Tricycle in the City.	Est. Daily Tricycle Pasg. Carried	Av. Daily Operating Cost	Av. Daily Maint. Cost Per Operator	Est. Daily Revenue Generated Per Operator	Av. Daily Delivery to Owners of Tricycle	Daily net Revenue of an Operator
12	63	856	53,928	N500	N200	N1800	N500	N600

Source: survey Nov.2005

As indicated 1, a tricycle operator makes an average of 12 trips per day on the routes they ply and carry an average number of 63 passengers per day. The information collected from Tricycle Operators' Union and KSTA reveals that, there are 856 tricycles currently registered for commercial operation in the city. When this number is multiplied with the average daily passengers carried, it is expected on a whole, that not less than 53, 928 passengers are carried daily by tricycle operators in the city, this is quite substantial in a city of about 2 million people.

A close look at the table also shows that, an estimated average of N1800 is generated daily as revenue by an operator. Out of this, N500 representing 27.8% is spent daily on operation, while N200 constituting 11.1% is spent daily on maintenance. A hired tricycle operator delivers daily an average of N500 to the owner of tricycle, this amount represents 27.8% of his total revenue generated per day. An operator is left with N600 as his net revenue, this constitutes 33.3% of his gross earnings. This amount earned by an operator per day is far above the minimum National Wages and Salaries of a public worker in Nigeria. The above analysis clearly implies that tricycle operation is a lucrative business, which no doubt assists in the reduction of unemployment and poverty alleviation. This partly forms the reason for the state government to embark on massive importation of tricycle to replace motorcycle, which has currently taken over the entire traffic landscape of the city. The operation of tricycles in Kano is also appraised using users' perceptions. To achieve this, a questionnaire survey of users of tricycles was carried out. Two hundred and thirteen (213) users were successfully interviewed the summary of their responses are presented in table 2.

Table 2 Qualitative Assessment of Tricycle Operational performance

Performance qualities	V.good	Good	Fair	Bad	Total
Comfortability	84 (39.4%)	92 (43.2%)	26 (12.2%)	11 (5.1)	213(100)
Safety	46 (21.5%)	96 (45.1%)	62 (29.1%)	9 (4.2)	213(100)
Speed	61 (28.6%)	115 (54.0%)	30 (14.1%)	7 (3.3%)	213(100)
Cost	124 (58.2%)	60 (28.2%)	22 (10.3%)	9 (3.9%)	213(100)
Flexibility	56 (26.3%)	110 (51.6%)	40 (18.8%)	7 (3.2%)	213(100)

Source:survey Nov. 2005

NB -The figures in bracket represent the percentage

A close examination of 2 indicates 43.2% of respondents interviewed opined that tricycle is good for comfort while 39.4% expressed that tricycle is very good for the comfort of the users. Only 5.1% believe that tricycle is not comfortable as mode of urban transportation. Those who believe that tricycle is good for safety constitute the highest proportion; they constitute about 45.1% of the users interviewed. The next highest group of users are those who assess the safety of the tricycle as being very good, they constitute 21.5% of the users of tricycle.

In terms of speed, majority of the users believes that the speed of tricycle is good enough for urban mobility. This number constitutes 54% while 28.6% other assessed it as being very good. It was also observed that 86.4% of the users believe that tricycles are very cheap and cheaper than all other modes of urban transportation in Kano. From the foregoing, majority of the users has generally come to accept the tricycle as a good mode of public mobility in City. In order to unravel the underlying reasons for the choice of tricycle for urban mobility, table 3 shows various reasons for using tricycle as mode of public transport in the city

Table: 3 Reasons for Passenger Reasons for Choice of Tricycle for Urban Travel

Reasons	Frequency	%
Cheaper	48	22.5

Faster/flexible and convenience	30	14.1
Safer	20	9.4
Condition of road	5	2.3
Inadequate transport service	10	4.7
Imposition by law	88	41.3
Others	12	5.6
Total	213	100

The above indicates that the dominant reasons for using tricycle now in the city was because it was imposed on them by the government, this constitute 88% of the user's responses. This is not surprising because of the new sharia law that forbids women from using motorcycle as mode of public travel in the city. Apart from this, many of the users of the mode believe that the mode is relatively cheaper and more flexible than buses; they represent 40% and 30% of the responses of the users.

The waiting time of tricycle users was equally investigated and analyzed. The result of the investigation reveals that over 50% of the users wait between 0 and 5 minutes before they get a tricycle for boarding to their destination while 39% of the respondents spend between 6 and 15 minutes. However, this waiting time varies from time to time. The above figure represents the average waiting time for both peak and off peak periods of the day.

Problems Associated with Tricycle Operation

In spite of the obvious benefits of tricycle operation and seemingly government's determination to promote the use and operation of tricycle for urban mobility in Kano, Nigeria, the mode is still bedeviled with numerous problems. The problems include the following: Lack of spare parts for effective repair and maintenance. Due to this problem, many tricycles have been abandoned and remain unserviceable particularly those that were supplied in 2002 and 2003. Unhealthy rivalry between tricycle operators and operators of other modes like bus and motorcycle. Incessant harassment from police and other law enforcement agents. Absence of traffic segregation between tricycle and other traffic. This often creates traffic conflict in the city. Inadequate technical personnel for the repair and maintenance of the tricycle. There is no specific place designated as terminal for this mode, rather, tricycles are usually seen parked along major traffic corridors and at major intersections in the city. Many times they obstruct the flow of traffic thereby creating congestion.

CONCLUSION

The paper has examined the evolution of tricycle as a mode of public transport in Nigeria with particular reference to Kano city, the circumstances that brought the mode into the city's transport system and the major issues that arise from its operation. It further examines the operational performance of the mode as perceived by the users, as well as the main problems militating against the effective operation of tricycles in the city. The paper finally makes some specific recommendations that can help in solving the current operational problems associated with the mode. It is believed that if these recommendations are implemented it will no doubt assist to improve the operational

performance of tricycle not only in Kano but in other Nigerian cities as well as other cities in African countries with similar development experience.

RECOMMENDATIONS

In view of the problems observed, the following recommendations are hereby made.

There is need for proper integration and coordination of various modes of public transport in the city. This will help to reduce inter-modal conflicts being currently experienced in the city. The operation of tricycle should be complementary rather than competitive with other modes like buses. In view of this, the mode should be limited to access and secondary routes. Terminal should be provided for parking and repair of tricycle in the city. Government should encourage the importation of spare parts and provide training programme for the mechanics that repair and maintain the mode.

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