

ASSESSMENT OF INTER-CAMPUS TRANSPORTATION: A CASE OF FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA – NIGERIA

BY

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ABSTRACT

This research evaluated Federal University of Technology, Minna Inter-campus Bus Transportation Service so as to provide a physical planning solution for the improvement of the school's main transportation system. The work covered bus operations between Gidan-kwano campus and Bosso campus of the university. To achieve this, physical and socioeconomic surveys were carried out on the two campuses including direct interviews with the students and staff, and an assessment of the available transport facilities. Analysis of collected data was done using Descriptive Statistical Method (DSM), which examined the problems faced with the bus transportation system to include: inefficiency in service delivery, insufficient and also non-availability of vehicles to serve both staff and students. It was discovered that this avoidable inefficiency has affected the academic performance of students, besides creating unnecessary tensions between members of the university community at large. These challenges have continued despite state government intervention that provided additional buses to ease the situation. It is recommended that policy adjustments needs to be effected by the university regarding inter-campus transport services to encourage partnership with private operators in the wider public in inter-campus transportation service as against the present practice where it is solely owned and operated by the university and state government agencies.

Keywords: bus / campus / delays / students / transport / university

1.1 Background to the Study

As essential service in both rural and urban centres, transportation enables people, firms and other socioeconomic organizations to effectively carry out activities in separate locations. Transportation provides a key to the understanding and operations of many systems and is often seen as the epitome of complex organizations of activities and the level of economic development in any human society. This explains why it is generally seen as the movement or conveyance of people, goods, ideas and

information from one place to another. Since it is not all areas that are equally endowed, there is always the growing need for interaction between locations through transportation. In the same vein, transportation is important for the survival of modern society and without it, there would be no life in the city (Buchannan, 1969; Adeniji, 1985; Hoyle and Smith, 1992; Onakala, 2001).

Public transportation system provides the most efficient means of moving large number of people within and between towns and cities. In addition to the wellbeing of its users, public transport plays roles in the productivity of cities which in turn has direct bearing on the national economies (World Bank, 2001; Lyndon and Toda, 2006). Public transportation by definition connotes the activity or means of conveying “en mass” as opposed to individual vehicles carrying few people at a time. In other words, public transport or mass transit as it is sometimes referred to, is a system in which a greater number of people are moved at a time along principal transportation corridors (Ogbazi, 1992; Rabi and Cord, 2006). Public transport comprises mainly of rail system, light rail system, tram ways or mono rails, bus system and where possible water transportation. Today, there is the need for a greater variety of public transportation modes, but buses are preferred by most people because it is more affordable especially in developing countries (Mabogunje, 2008; Armstrong-Wright, 1993).

The choice of buses by the Federal University of Technology, Minna (FUTMinna), was due to rapid growth of student population, a development that have also necessitated the relocation of the school to its permanent site at Gidan-kwano village, southeast of Minna. However, inadequate off-campus accommodations at the new site have necessitated the need for daily inter-campus movements, a situation which have not erased delays and other transport problems from the mind sets of the university community ever since.

1.2 Statement of the Problem

Federal University of Technology, Minna (FUTMinna) bus transportation services was set up to handle student and staff movements between its temporary campus at Bosso campus and its new but permanent site at Gidan-kwano campus of the university (Okeme, 2011). The university management have made positive efforts in

the past to achieve effective transportation between the campuses. Despite these measures, efficient and effective transport services have not been achieved. Problems of; long queues at the bus parks; the increasing long waiting time for buses; the inadequate or non-provision provision of transport infrastructures at the bus stops; and, poor academic performance of students resulting from these problems, still persist with growing number of victims.

This work highlighted the peculiar transportation problems in FUTMinna. It further suggested avenues to effectively address them taking into consideration the peculiarities of the study area and the purpose it is made to serve. This was carried out through the examination of other avenues that can ensure sustainability of the transport system and generate the needed growth of the sector to ease movement between the two campuses and their surroundings.

1.3 Aims and Objectives of the Study

The aim of this research is to assess the conditions of Federal University of Technology, Minna bus transportation service and to proffer solutions of improving their services. The achievement of this aim was guided by: highlighting the need for efficient and effective transportation system in human development activities; examining the problems of inter-campus transportation systems in Nigeria; assessing the effects of inefficient transport system on students' academic performance; identifying ways of improving inter-campus bus transport in FUTMinna; and finally, making recommendations on how to ensure efficient and effective inter-campus transport service in Nigerian universities.

1.4 Physical location of the Study Area

Minna is located between latitudes $9^{\circ}33'$ and $9^{\circ}42'$ to the north and longitudes $6^{\circ}27'$ and $6^{\circ}35'$ to the east (Longman, 2003; Googlearth, 2011), and about 100km from Nigeria's Federal Capital Territory, Abuja. Gidan-kwano (GK) village that houses the main campus of the university is about 15km southeast of the main Central Business District of Minna, the administrative capital of Niger State, central Nigeria.

Federal University of Technology, Minna is a Federal Government owned educational institution for teaching and research in Niger State, central Nigeria. The school came

into existence in 1983, as a push for the Nation's drive for the much-needed self-reliance in science and technology. The temporary site of the university in Bosso (northern part of the town); is a conducive academic environment formerly occupied by Government Technical College (GTC) with an expanse of land bounded by different hamlets, farmlands and villages without social infrastructures (FUTMinna, 2008) but, now fully developed as a major residential neighbourhood in the metropolis. With time, it was discovered that there was no more space for continuous expansion therefore; the management of the school through the Federal Government acquired 10,650 hectares of land along Minna -Bida road that was earmarked for the town's university (Lock, 1980) for physical development to serve as the permanent site and the main campus of the University. Work started on this site in 1992 and was abandoned in 1993. It was during the tenure of the fifth Vice Chancellor of the University in person of Professor Tukur Sa'ad, that the University witnessed the completion of many projects there and the subsequent movement of three schools (faculties) to the site in September 2005 during the 2004/2005 academic session.

Review of Related Literature

2.1 Transportation and the national economy

Transportation and development: Throughout history, it has been shown that transportation is an overwhelming agent of growth, change and development in all facets of human existence and has facilitated remarkable changes in social, economic, political, recreational, religious, and cultural activities of different civilizations. It also helps in the mobilization of factors of production, trade, commercial, and other socioeconomic activities between and within nations. Hence, policies that disrupt the smooth running of the transport system will definitely affect the efficiency, growth and development of the society and its well-being (Smek, 1974; Ndikom, 2006; Rabi and Cord, 2006). Transportation is the propelling force for growth and development. Whether in a developing or developed country, it serves as the driving force for the movement of the people and the flow of information, raw materials and finished products, for the building and maintenance of the society (Rae, 1968; Olayemi, 1977; Badejo, 2003; Rabi and Cord, 2006). No nation can be said to be developed without having viable transport system. Most times, a nation is described to have attained a

given level of development by the nature of its transport network (Ogundana, 1997; Ogunsanya, 2002; Oyesiku, 2002).

Adeniji (1985) described transportation as a measure of relationship between areas. That it is the essential element in the function of societies which influences the creation of essential economic activities and land uses such as: residences, leisure and social facilities location. Transport influences the quality of life in the society, as there is hardly any aspect of development which does not involve transportation. There is always the need to collect, assemble, transfer, and distribute people, goods and services (Egunjobi, 1999; Ogunsanya, 2002; Oyesiku, 2002).

The objective of transportation is basically the safe arrival of goods and people at the given destination and in good condition too (Smek, 1974; Adeniji, 1985). The function of transportation is to move people from where they are to where they would prefer to be and to move goods to where their relative value and importance are greater. It is very important that passengers and goods get to their destinations safely and without damage. Safe arrival is the product of transport industry. Although the business objective of any transport organisation is to make profit and remain in the market, however, in transportation the ultimate aim and product is solely the satisfactory arrival of passengers and goods at their respective destinations safely.

Inter-city bus transportation system: Inter-city bus is a bus that carries passengers to significant distances between different cities, towns, or other populated areas. Unlike a municipal bus, which has frequent bus-stops throughout a city, inter-city buses generally has a single stop at a centralized location within the city, and travels a long distances without stopping at all. Inter-city buses exist all-over the world and are operated by government or private industries for profit or charity. While also serving heavily populated urban areas, inter-city bus services are of prime importance in lightly populated rural areas that often have little or no public transportation between and within cities (Olayemi, 1977; Adeniji, 1983; Filani, 1991; and Adesanya, 1994; Olarewaju, 2004). Impact of states in transportation development in Nigeria has been felt more in the areas of bus service delivery, rather than freight haulage. When compared with private sector involvement, public sector involvement in the direct provision of urban bus services still remains insignificant in Nigeria today, a

development that dates back to the early 1930s when the native authority in Kano provided bus services around the city. Later on, the Lagos city council set up the Lagos municipal transport services (LMTS) in 1958, while the Ibadan City Council started the city bus service in 1964, which was later operated jointly with the Oyo State Government (Olayemi, 1977; Adeniji, 1983).

Inter Campus Movement: Inter-campus movement implies the movement from one campus to another which could be within the same institution. The rationale behind inter-campus movement is that, the institution is large or is with a high spatially spread, or, has more than one campus. Over the years, inter campus transportation has become a major problem in developing countries. This is as a result of inconsistency in management and dedication on the part of the operators. Increasingly scarce financial resources have contributed to this inefficiency. Hence, obtaining new vehicles and maintaining the existing ones have become a very hard task to carry out (Adeniji, 1983; Filani, 1991; and Adesanya, 1994).

Many institutions of higher learning in Nigeria have introduced measures to help improve inter-campus transport service. This can be through private operators involvement in commuting students and staff to various activity centres in and within their campuses. In the case of FUTMinna, although, inter-campus transportation has become a major problem to staff and students over the years, it must be comprehended that the peculiar nature of the campuses, have also not rendered the introduction of outsiders any easy task.

Although, the need for inter-campus transport services cannot be overemphasized, there is still the need to enumerate the experiences of one solely operated by the university administration. This would address the question on how this has influenced activities in or the university whether this has any influence on students' academic performance. How lack of effective transport service is affecting and is likely to further influence the objectives and the inter-related activities taken place in a university like: academic activities; administrative and, social activities that usually trigger such inter-campus movements.

Methodology

3.1 Data sources

Primary data used for this work was sort through the administration of structured questionnaire, discussions, physical observations and interviews. Digital photographs were also used to record images. Secondary data were also sourced from existing published and unpublished works like textbooks, project works, dissertations, field reports as well as information from newspapers, electronic media, satellite imageries and materials sourced from the internet.

3.2 Population and Sample

Population: this research was carried out to evaluate the performance of university bus transport service of Federal University of Technology, Minna. The target population consists of those who patronize the university bus service for daily trips between the university's two campuses. Other members of the university community were excluded for the fact that they don't patronize these services as much as this first group. Hence a sample of 250 students was drawn from a population of about 2,750 who were randomly administered structured questionnaire to the eleventh student who came into the bus park to board a bus. This exercise was carried out in the five work days (Monday to Friday) using 50 sets of questionnaire each day. This is to minimize the effects of days with high traffic and to also to be able to access the opinion of those who only go to the campus once in a week.

3.3 Instrumentation

Physical observations: This activity involves the researchers being in and around bus parks and bus stops at the two campuses observing the on-going activities there and further carrying out discussions and assessing the social setting for the purpose of collecting both qualitative and quantitative data regarding the theme of the research.

Oral interview: This refers to the administration and or the interpretation of structured and unstructured questionnaire items on respondents in order to elicit responses to questionnaire items. This has the advantage of having direct contact with the elements, persons or the situation been assessed.

A questionnaire: these are a set of structured questions prepared and distributed by the researchers to the respective respondents for completion. They have multiple choice options and open-ended questions, and were retrieved later for compilation and detailed analysis.

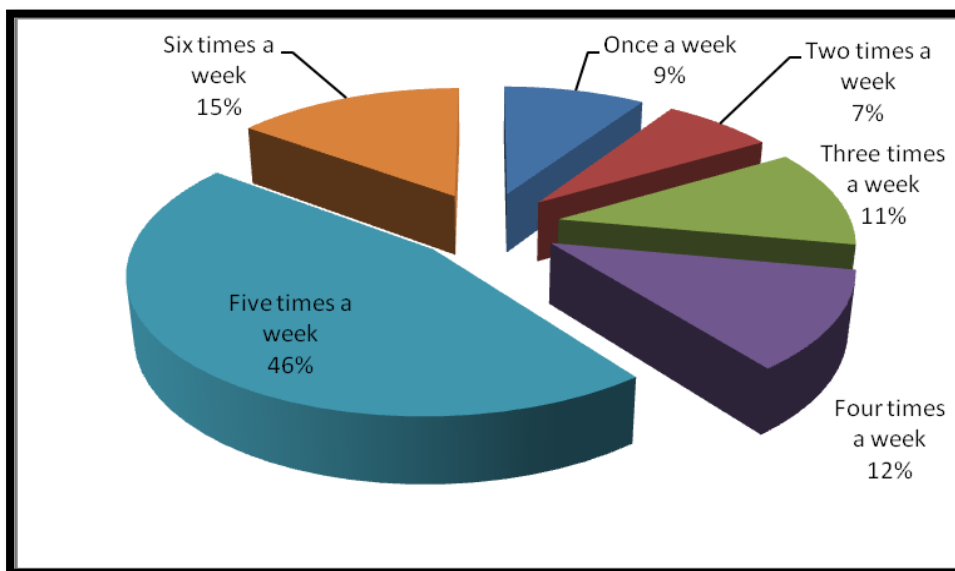
3.4 Data Analysis and Presentation

The method of data analysis employed for this work is the descriptive statistics type involving the use of charts and bars. These are frequency tables, bar and pie charts, histograms, and line graph.

Data Analysis

4.1 Patronage of school bus services

There is a high traffic between the two campuses of Bosso and Gidan-kwano of FUTMinna. Field assessment shows that male students constitute about 70 per cent of respondents and their female counterparts constituting only 30% of those interviewed. It is also shown that over 60 per cent of the respondents normally go to either of the two campuses between 5 to 6 times in a week and about a quarter of them go there at least twice. See figure 1.



Source: Field Survey Nov, 2010

Fig. 1: Frequency of Inter-campus Travel

The university bus service is highly patronized as over 66% of the students of the university live in off campus accommodation and needs their services in order to be

able to attend lectures and similar activities on a daily basis. Only about 34% of the respondents live in either of the two campuses. Amongst this group, about 57% take at least 15-minute walk to get to the bus stop where they usually board the school bus or engage the services of commercial motorcycle riders for this first leg of the journey to school. More than 57 per cent of the respondents stay at distances farther than a 45 minutes' walk. This perhaps accounted for the reason why almost 70 per cent of them pay between N20 to N50 before getting to the university bus park.

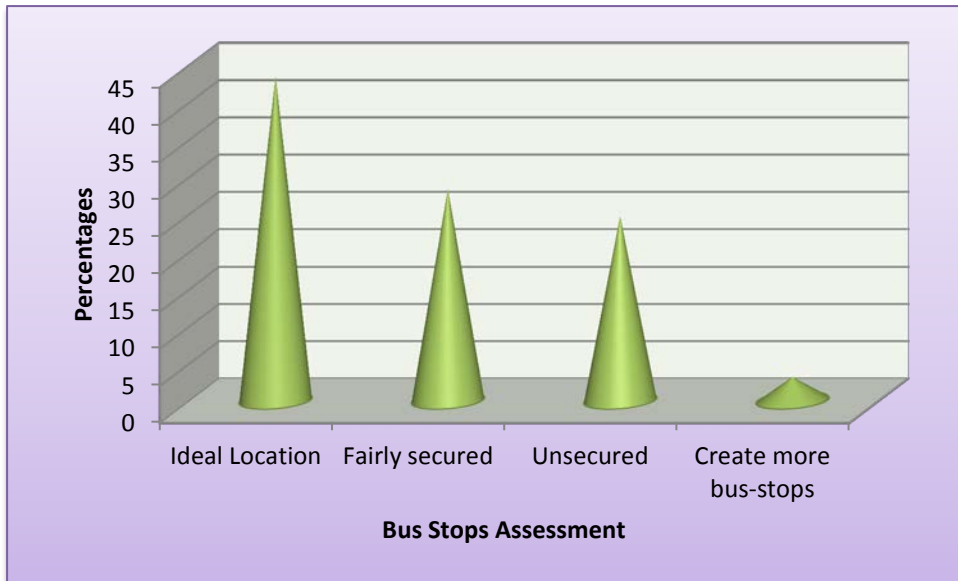
4.2 Available transport facilities

Field assessment revealed that although over 71 per cent of the respondents are frequent in the use of the school bus parks. There are however different reasons for doing this. Less than 10 per cent of the respondents only patronize FUTMinna Bus Transport Services because it is convenient for them, while over 61 per cent does this because it is cheap, and none does this because of their neatness. Again, over 56 per cent of students spend an hour or more in the park waiting for buses to arrive (see table 1). Users' assessment of the university bus facilities show that about 43.6 per cent of the respondents acknowledged that the locations of the different bus stops is ideal, while about a quarter of them are of the opinion that the bus parks are unsecured for students and overall assessment shows that there is the general need to have more bus parks (see figure 2).

Table 1: Approximate Time spent in the Bus Park before the arrival of a bus

Time spent in bus park (minutes)	Frequency	Percentage
Less than 15	4	1.6
15	5	2
30	52	20.8
45	45	18
60	77	30.8
Above 60	67	26.8
Total	250	100.00

Source: Field Survey, Nov.2010



Source: Field Survey, Nov.2010

Fig. 2: Comment on bus stops

4.3 Effects of delays and inconvenience caused by inter-campus buses

The evaluation of the university bus transport services play a significant role in the academic performance of the majority of students. Over 28 per cent of the students have shown that the avoidable delays usually play negative roles in their academic performances and it is the main cause for lateness in class usually experienced by about a quarter the students, and a further cause of physical and psychological stress and disturbance to almost one-thirds of the student population. See Plate I.



Source: Field Survey November, 2010 & Okeme (2011)

Plate 1: Long queue of students due to the School Bus Delays

4.4 Improving Inter- Campus Bus Services

The university supplied buses are the only available means of inter-campus bus services in FUTMinna. This is why it enjoys over 67 per cent patronage compared to other means like taxis, and the ubiquitous commercial motorcycles (popularly known as Okada). The majority of the students patronize the school transport system because it is cheaper compared to these other available means. However, the buses are not sufficient to cater for the ever increasing population of students. The result is constant occurrences of long queues at the different bus stops causing over 75% of the students to wait for more than 30 minutes to get a bus for a trip. See plate I.

4.5 Discussion of Findings

The respondents who constantly suffer the inconveniences of ineffective inter-campus transport services of FUTMinna are optimistic and also believe that the situation will improve. This, according to them, is mainly hinged on the needed re-focussing of the institution and its management on improving services by taking necessary measures. For example, there is the need for the university administration to ensure that those managing the venture are well dedicated to their duties and discharge their work effectively too. It also needs to invest more on funding the sector effectively. The over 83 per cent response to this, in effect means that more buses should be provided, and that private investors should be given a chance to participate in the system. See table 2.

Table 2: Measures to improve inter-campus bus transport

Measures	Frequency	Percentage%
Management should be dedicated and discharge their work effectively	3	1.2
More buses should be provided	142	56.8
Allow private investors to participate in the inter campus transportation	64	25.6
Plan the bus park very well	2	0.8
Maintain available buses	15	6
No idea	10	4
Reduction in the transportation fare	9	3.6
Employ educated personnel to manage the buses	3	1.2
More accommodation should be provided on both campuses	2	0.8
Total	250	100

Source: Field Survey Nov, 2010

Wherever an institution of higher learning is located, many individuals and organizations stand to gain from its various functions right from its inception. These apparent and potential gains stand to be achieved in no small measure if its

coordinated components function effectively; and its existence can be marred if these components are in dis-array. The same can be said of other establishments like industries, road network, ministries, housing projects, and so on. This underpins many works on regional development and related fields. When these functions are challenged by factors like ineffective transport system, then, the immediate and potential advantages are usually affected leading to accelerated decline in output. This does not only affect the students alone; as in the case of inter-campus services, it also extends to the members of staff of the institution and in deed the entire host community.

5.1 Conclusion and Recommendations

Effective and efficient transportation system generally gives life to any city its surrounding hinterland and the region at large. It is also believed to be of great significance to the socioeconomic activities and resources in both urban and rural areas including their environments, resources and their inhabitants. There is however a limited understanding of negative effects of the roles of inter-campus transportation in growing medium size cities of Nigeria. This has not been the subject of related works particularly to assess the roles it can play in the academic performance of the students and the unit administration as a whole. This study has been able to reveal the problems facing inter-campus transport system in Nigerian universities and also enlisted stakeholders' inclusive suggestions on how to effectively tackle these problems.

Recommendations which, require a rethink of the roles of the university authorities, private transport service providers and other stakeholders were made here to effectively address the problems and to install progress in the works of the students and staff of the only university of technology in the state which also serve as the second federal tertiary institutions in one of the largest states of the federation. There is a strong recommendation on the involvement of other players like governments at different levels, and other private organizations to help make efficient inter-campus transportation. However, the modalities of the importation of partnerships into the system is an area that requires more assessment in order to recommend best approach – one that recognizes the peculiarities of the institution and the local socioeconomic and sociocultural environment.

In regards to its peculiarities, field studies sampled opinions in regard to the state of transport services and the way forward in tackling its growing challenges, the following are recommended for consideration:

1. The university authorities should allow private bodies providing commercial transportation services to come into the system. This approach has been successful in many similar citadel of learning across Nigeria. For example, at Ahmadu Bello University, Zaria, University of Lagos, and University of Ilorin.
2. The problem of lack of space and absence of defined parking spaces for private buses especially at the Gidan-kwano campus can be addressed by making provisions to accommodate these private buses and other vehicles that would be allowed into the campus to provide more buses to ease these disturbing transportation problems.
3. The bus parks in both campuses should be well equipped with adequate facilities and services such as rest room, restaurants, shops and parks, to eliminate the painful experience of avoidable long queues.
4. Public Private Partnership (PPP) has been more successful in running many urban services; inter-campus transport service cannot be an exception. This can also reduce unnecessary work-load on the university authorities and staff.
5. It must be emphasized that, when negotiating and or entering into full partnerships, the terms of agreement between the school and the private bodies to be invited to take part should be clearly defined and adhered to by both parties.

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