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Citizen Participation in Decision-making for Urban Road Transport Planning in Abuja, Nigeria

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Abstract
Abuja, Nigeria is facing a transport crisis. It has only road as its mode of transport, it has inadequate road transport infrastructure and facilities that create delays for commuters. As a result, the city is ill prepared for transport demand and transition to a zero-carbon transport system. This study aims to understand user needs and satisfaction while using the existing transport system, and the involvement of transport users in the development of the city's transport system. The FCT has a population of 1,406,239, and the average daily passenger number for bus travel in the whole administrative region is under 800,000. This study highlights the implications of inadequate citizen participation, demonstrating an absence of agency to influence strategic planning decisions for road transport provision in the city. A semi-structured interview with 261 commuters (sample size was calculated with 90% confidence level and 5% margin of error) was carried out in Abuja, the interviews was a purely random approach to commuters. The study found out 79.7 of respondents supports the need to involve the citizens in decision making, 62.5% do not own any type of vehicle, 53.6% are not satisfied with public transport services, and 60% of research participants are young people and people of working age. Also, understanding the needs and priorities of commuters and operators of road transport facilities, supported by the necessary numerical and factual data is important for establishing a sustainable transport system in Abuja. It is argued that civic engagement, participation, collective citizen action, and the knowledge of the governance system should be guiding themes for understanding the needs of the stakeholder priorities.

Keywords: citizen participation, urban road, transport planning, inclusion, Abuja

INTRODUCTION
Understanding issues affecting communities is the first step to addressing them (Wonodi *et al.*, 2012), whilst communities having ownership and implementing bottom-up decision-making of urban plans and programmes is also of great importance (Ogu, 2002). McKenzie (2002) stated that the contemporary dynamic commuter experience in urban areas causes negative perception and experiences to citizens that can be remedied through an all-inclusive approach to urban transport planning. Some members of the community might not participate in the decision-making of their community but listening, understanding, and adapting to their existing local system will help to encourage them to participate (Maia *et al.*, 2016). Satterthwaite (2017) stated that local governments must improve upon their sense of responsibility by gathering communal data in an adequate and timely way in the pursuit of providing effective and efficient public transport services.

Abuja, a city-region (Aliyu, 2016; Federal Capital Development Authority, 2018a), has its transport system concentrated in the city centre (Razak, 2016) thus the "transportation

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linkages to the suburban areas in Abuja were left to evolve organically as informal bus services, hence public transport has been largely fragmented, unregulated and unreliable" (Razak, 2016, p. 52) with a dependence on private cars for mobility. Furthermore, commuters still prefer to board taxis and paratransit instead of the transit buses because of the inadequacy of the buses, time covered during travel, and bus comfort issues (Nwankwo & Barimoda, 2019). Due to these issues, there are significant advantages to involving citizens in decision-making during programme implementation in communities (Praharaj *et al,* 2018; Ogu, 2000; Whitton *et al.*, 2015; Anastasiadou & Vougias, 2019).

Abuja transport system is facing different challenges. These challenges include unpaved roads within some neighbourhoods (Abiye *et al*., 2013), unavailability of streetlights in the night and poor access for emergency services when needed (AbdulAzeez *et al*., 2015), unaffordable houses in the city centre thus most inhabitants live in the peripheries (Aliyu, 2016), and parts of the peripheries are without basic amenities and infrastructures (Aniekwe & Igu, 2019). Thus, the people live in faraway places and commute daily to work in the city centre (Biliyamin & Abosede, 2012), this does not encourage sustainable, non-motorised transport.
A sustainable transport system is based on social equity, social exclusion, and quality of life (Lucas & Stanley, 2013; Boschmann & Kwan, 2008). It is important to provide an integrated and people-centred transport system and it can be delivered if the financial, human, and operational resources are made available with due consultation and understanding of the commuters' needs (Qureshi and Lu, 2007). In terms of priorities, Nwankwo et al. (2016) and Nwachukwu (2014) reported that commuters in Abuja prefer improvement in existing public transport services, building of new public transport infrastructure, and construction of new roads.

Furthermore, Abuja needs to improve its public transport system by the provision of professional, organised, disciplined, and regulated bus operators (Ojekunle, 2016). Yet, Femi (2012) advocated for the creation of a regulatory body for transportation and the opening of a multimodal public transport system can improve public transport in Abuja. Additionally, Nwankwo *et al.* (2016) reported that the existing public transport system in Abuja is unreliable, inefficient, unsafe, uncomfortable, unavailable, expensive, inaccessible, and inconvenient for commuters. Mugion *et al.* (2018) equally reported that service quality of urban public transport enhances sustainable mobility when service is designed according to customer needs and expectations (security, reliability, comfort, travel time and waiting conditions).

Looking at these terms in line with public transport service, as defined by Church *et al.* (2000); Banister (2005); Rodrigue *et al.* (2016); United Nations: Secretary-General's High-Level Advisory Group on Sustainable Transport (2016), the people of Abuja need to be sensitised to what the standards are, in line with their local values and norms (Victor, 2012). Thus, this paper has identified that stakeholder participation is lacking in Abuja between the government and the governed in providing a transport system that is sustainable, it might not succeed if it is not done mutually and respectfully between the parties. To understand how this is applicable to urban road transport, this paper focusses on exploring stakeholder participation in urban road transport from the point of view of the commuters.

METHODOLOGY

Bocarejo and Oviedo (2012) mentioned that "other researchers contribute to the development of transport analysis tools that consider social elements" (*ibid.;* p. 153) in addition to quantitative data. Many scholars have studied different groups of commuters and their

utilisation of various transport systems in their respective communities (Lai and Chen, 2011; Ibitayo, 2012; Porter, 2013; Olawole and Aloba, 2014; Nwachukwu, 2014; Oviedo *et al*., 2016) as we have done in the current study in our exploration of commuter choices and decision-making in Abuja.

Study Area

Abuja, the capital city of Nigeria, has a population of 776, 300 with a growth rate of 9% (National Population Commission, 2007). The city was created specifically to serve as a model capital city for Nigeria thus necessitating the planning and construction of a modern and befitting city of world-class standard from a barren area in the middle of the country (Federal Capital Development Authority, 2018b).

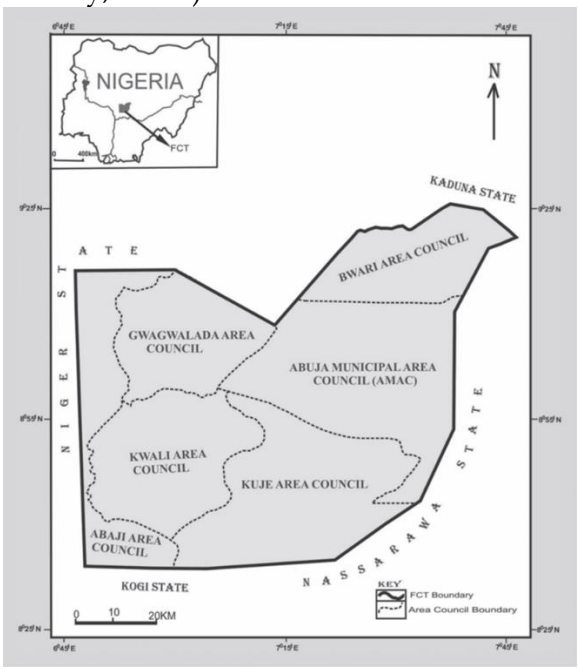

Figure 1: Map of the Federal Capital Territory (Source: Nwachukwu, 2014)

Figure 1 illustrates the administrative region of the Federal Capital Territory, in Nigeria, and the Local Council where Abuja is located - Abuja Municipal Area Council. Figure 2 illustrates the location of Abuja, within the Abuja Municipal Area Council.

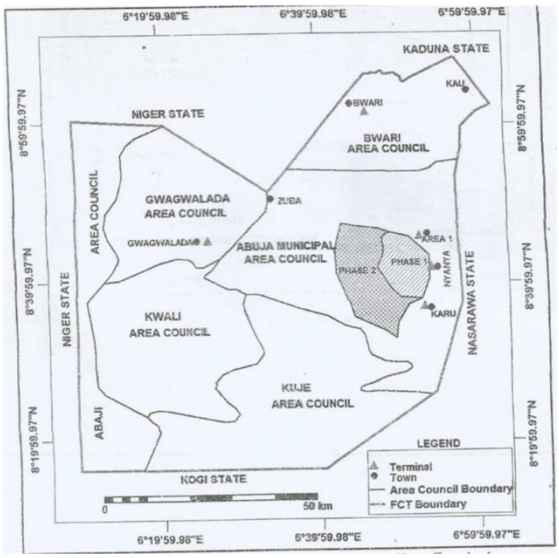

Figure 2: The Administrative Region of the Federal Capital Territory illustrating the city of Abuja

(Source: Nwankwo, Fawohunre and Obasanjo, 2016)

Study Design

A semi-structured interview was conducted with commuters using 261. The sample size was calculated sample size was calculated with 90% confidence level and 5% margin of error based on the average daily passenger number for bus travel in the FCT which is 800,000.

Data Collection

Data gathering involved interacting with commuters in Abuja. The questionnaires had closed (i.e. yes/no response) questions. Data collection was done at four major bus stops within the city of Abuja.

Data Analysis

The data was analysed using *SPSS* (Statistical Package for the Social Sciences) software with presentations in tables and bar charts.

RESULTS AND DISCUSSION

A total of 261 commuters participated in this research. As Table 1 illustrates the age brackets of the respondents.

Table 1: Age Bracket of Respondents

Age Categories	Number of Respondents	Percentage (%)
18-27 years	84	32.2
28-37 years	80	30.7
38-47 years	51	19.5
48-57 years	25	9.6
58-67 years	9	3.4
68 & above years	12	4.6
Total	**261**	**100.0**

Table 2 illustrates the occupation of the respondents.

Table 2: The Employment Categories of Respondents

Employment	Frequency	Percentage (%)
Civil Servant	61	23.4
Private Employee	53	20.3
Self Employed	73	28.0
Unemployed	21	8.0
Student	43	16.5
Others	10	3.8
Total	**261**	**100.0**

36.0% of the respondents stated they have heard from the electronic media (radio, television, etc.) about the Federal Capital Territory Administration calling on the people for consultation on urban road transport, while 64.0% have never heard about it.

Table 3: Civic Engagement in Abuja

Citizen Responses	Frequency	Percentage (%)
Yes	55	21.1
No	78	29.9
Don't Know	128	49.0
Total	**261**	**100.0**

Table 3 illustrates the civic engagement in Abuja.

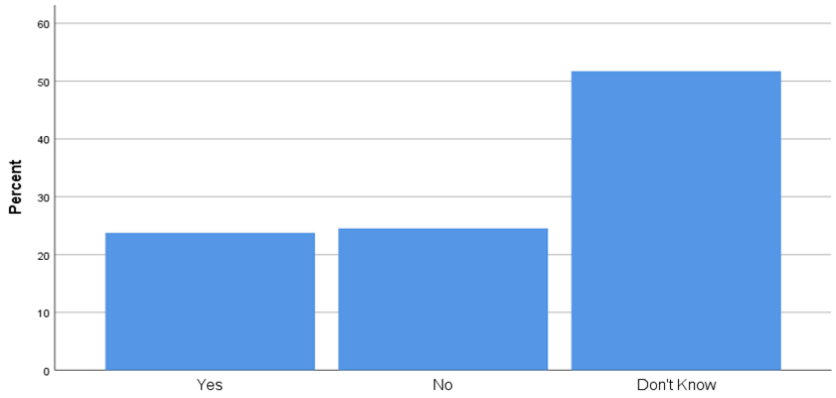

Figure 3: Informing the People of Developmental Plans in Abuja

Figure 3 illustrates the Federal Capital Territory Administration informing the people of their developmental plans. 79.7% of respondents supports the need for the Federal Capital Territory Administration to involve the citizens more on policy development and implementation while 20.3% did not support.

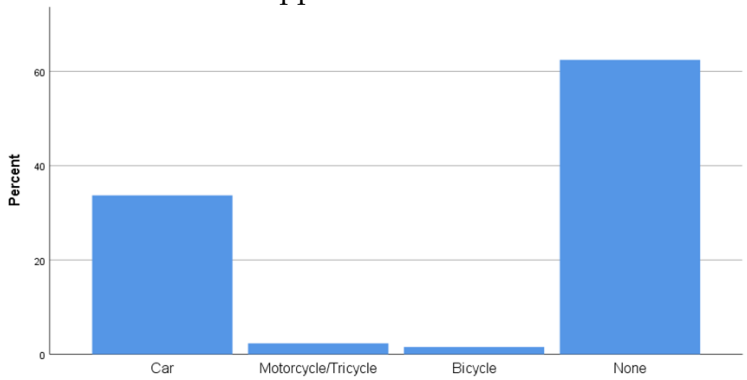

Figure 4: Types of Vehicles Owned by Respondents

Figure 4 illustrates vehicle ownership. Table 4 illustrates the different factors that influence one's decision on how to travel depending on the modal options available.

Table 4: Factors Considered by Respondents before Travelling

	Very Important (%)	Important (%)	Moderately Important (%)	Not Important (%)
Convenience	69.3	21.8	4.2	4.2
Public transport options	32.2	41.4	14.2	11.9
Distance from home to public transport	31.4	39.1	18.4	10.7
Cost	55.6	27.2	10.0	6.9
Length of journey	31.8	40.6	16.5	10.7
Weather	36.0	33.3	19.2	11.1
Health benefits	70.9	18.0	5.0	5.7
Reliability	60.2	28.0	4.6	6.9
Safety	88.1	8.8	1.1	1.5

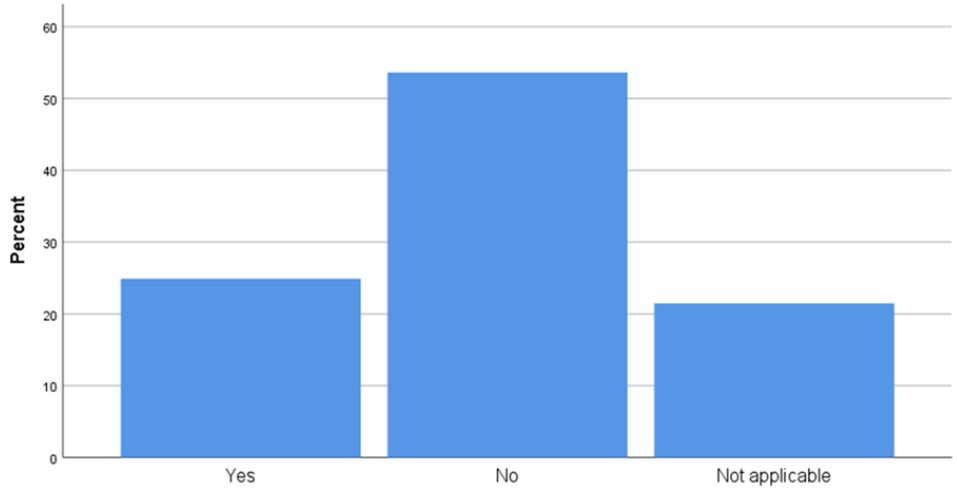

Figure 5: Satisfaction with Public Transport

Figure 5 illustrates commuter satisfaction with public transport. Table 4 illustrates the priorities citizens think government should focus on is improving commuting in Abuja.

Table 5: Priorities Government should Focus on in Abuja

Road Transport Priority	Frequency	Percentage (%)
Improving Existing Roads	141	54.0
Constructing New Roads	55	21.1
Improving Existing Public Transport Services	42	16.1
Building New Public Transport Infrastructure	23	8.8
Total	**261**	**100.0**

The results show that over 60% of research participants are young people and people of working age. They are not aware of consultation on transportation in Abuja, they do not know about the city's developmental plans, and they want to be involved in policy decisions and implementation though civic engagement is low. Most respondents do not own any type of vehicle and are not satisfied with the available public transport yet they have to utilise it.
The discussion is structured in line with the emergent themes of the research, particularly the theme of citizen participation in decision-making. Therefore, the data analysis from commuter responses is discussed in line with this theme.

Participation of Citizen in Decision Making

36.0% of the respondents responded they have heard from the electronic media about the Federal Capital Territory Administration calling on the people for consultation on urban road transport, whereas 64.0% of the respondents had never heard about it. Ogu (2002); McAndrews & Marcus (2015) stated that a robust public participation and communal togetherness is good for the community, whereas White *et al*. (2018) submitted that it is not always the case.

51.7% of respondents do not know if the Federal Capital Territory Administration (FCTA) has been informing the people of their developmental plans. 24.5% of the respondents declared that they have not been informing the people while 23.8% of the respondents submitted that they have. According to Bugs *et al.* (2010), government can make the developmental plans public and also consult the people using the same information and communication platform. 79.7% of the respondents supported the need for the FCTA to involve the citizens more on policy development and implementation, while 20.3% of the respondents did not. The

involvement of citizens in policy development and implementation goes a long way towards the policy having ownership and acceptability by the populace, especially if it is an infrastructure programme or policy (Ibem, 2009). Drawing up a city-wide multimodal transport system by planning professionals only is not advantageous to the populace (Sagaris, Tiznado-Aitken and Steiniger, 2017). In this study, most of the respondents indicated willingness to participate in the decision-making process of the city if the process is made transparent, accessible, and inputs are accepted.

Collective Citizen Action

49.0% submitted that they do not know if there is strong civic engagement among the people of Abuja, 29.9% of the respondents stated that there is no strong civic engagement, and 21.1% of the respondents stated that there is strong civic engagement. Communities need to understand what their challenges are (Wonodi *et al.*, 2012), own up to the challenges and advocate for a bottom-up decision-making of urban plans and programmes (Ogu, 2002). Therefore, involving citizens in policy making is both in their and the government's interest. Collective communal and civil engagement between neighbours and the civil society to influence construction of roads in a community is achievable (McAndrews and Marcus, 2015). Booth and Richardson (2001, p. 148) stated that there are different social groups within citizens, and they "can be identified on the basis of a variety of factors such as geography, gender, ethnicity, age, socio-economic group, employment, and so on." Hence, public authorities need to listen to all groups and incorporate their needs into the system. For a community to have agency (the ability to influence processes), they need to collectively mobilise, identify their communal needs, and participate in the achievement of those needs (Bhattacharyya, 2004). But "some populations are difficult to reach, and organized neighbours face the same challenges as professional planners when recruiting people who are unwilling to participate, speak different languages, or have different opinions about the issues at hand." (McAndrews & Marcus, 2015; p. 544).

54% of the respondents wanted existing roads to be improved, 21.1% of the respondents wanted new roads to be constructed, 16.1% of the respondents supported the improvement of existing transport services, while 8.8% supported the building of new public transport infrastructure. However, Nwankwo *et al.* (2016) noted that commuters in Abuja prefer improvement in existing public transport services, building of new public transport infrastructure, and construction of new roads (in that order), respectively. Though, a regulated public transport system (Ojekunle, 2016) and a regulated multimodal public transport system (Femi, 2012) are the better options.

The traffic problems that are of very serious concerns to the respondents are congestion on township roads (61.3%), traffic noise in the city (34.5%), reckless and unruly drivers and motorcyclists (73.9%), and insufficient traffic lights and traffic wardens (48.3%). Exhaust fumes in the city emitted by traffic are also of serious concerns to the respondents (35.6%). Congestion on roads (Gana & Emmanuel, 2014), traffic noise in the city (Osuntogun & Koku, 2007), reckless and unruly drivers and motorcyclists (Sumaila, 2013), and exhaust fumes in the city emitted by traffic (Akanni, 2010) are some of the traffic problems that directly or indirectly concern the respondents of this study.

Equity and Equality

Most (62.5%) of the respondents stated that they had no have any vehicle, 33.7% of the respondents do have a car, 2.3% of the respondents do have a motorcycle or tricycle, and 1.5% of the respondents do have a bicycle. There has been a 100% increase in car ownership in Abuja between 2007 to 2014 (Gbadamosi & Adenigbo, 2017). Though motorcycle usage is

banned in the city (Ogala, 2018), some of the respondents still have motorcycles. Because the built-up areas of the FCT spill over to the administrative boundary into the next region, it is not surprising that the respondents have motorcycles and use it outside of the FCT where they are not banned and are used for commercial purposes. The ban on motorcycles necessitated the introduction of tricycles in the city centre (Bassey & Swomen, 2012) but they are restricted to certain parts of the city (Dayyabu *et al.*, 2019).

The respondents who have any type of vehicle use it daily (31.4%), 3 – 5 times a week (10.0%), weekly (1.5%), and monthly (0.8%), and 56.3% of the respondents reported that the question is not applicable. Usani (2005) states that private cars account for 29.8% of daily travel in the city of Abuja. This is similar to the responses of this study, which is 31.4% (inclusive of all types of vehicles). Commuters' are diverse in their behavioural tendencies with regard to public transport (Lai & Chen, 2011) because public transit involvement, service quality, perceived value, and satisfaction influence commuter behaviours when using public transport. However, respondents feel that convenience (69.3%), cost (55.6%), weather (36.0%), health benefits (70.9%), reliability (60.2%), safety (88.1%), and frequency of service (35.6%) are the very important factors they consider in their mode of travelling within the city. Public transport options (41.4%), distance from home to public transport (39.1%), and length of journey (40.6%) are the less important factors that are considered before using any mode of transport.

These factors are already faced by women as barriers to mobility (Odufuwa *et al.*, 2012; ActionAid, 2016), hence the consideration given before embarking on any travel using public transport. Tiwari *et al.* (2016) did list the very important factors which are convenience, cost of travel, weather, health benefit, reliability, safety, and frequency of the service, and the less important factors which are public transport options, distance from home to public transport, and length of journey as reasons for people to restrict themselves from travelling. Taking into account the high rate of individual ownership of buses plying Abuja roads, the drivers deciding on how they operate, and redesigning the seating of the buses to accommodate more passengers with no thought on comfort and safety, Ojekunle (2016) opined that these will further make commuting in Abuja challenging to those who use public transport.

29.1% of the respondents spend an average of 11 – 20 minutes waiting for bus or taxi, 28.0% of the respondents spend an average travel time of over 30 minutes going to work, 23.4% of the respondents spend an average travel time of 11 – 20 minutes going to market, and 14.9% of the respondents spend an average travel time of 11 – 20 minutes going to school (or taking the children to school). The percentage of "Not Applicable" responses was found to be high. This is similar to the data for the Rio de Janeiro region, Brazil (Moovit, 2019b) and Istanbul, Turkey (Moovit, 2019a), which indicates that the average time people spend commuting to and from work is 95 minutes and 91 minutes, respectively. From the figures illustrated for the other cities and those of Abuja, Abuja commuters spend more time travelling to work than the other two cities. However, it should be noted that Istanbul, Rio de Janeiro, and Abuja are 1360, 1917, and 907 square kilometres, respectively (Demographia, 2018); and the other two cities have a greater population than Abuja.

53.6% of the respondents who use public transport are not satisfied with the services rendered, while 24.9% are satisfied. However, 21.5% of the respondents answered "Not Applicable". The unsatisfactory nature of the transport systems in sub-Saharan Africa has been stated (Lucas, 2011; Porter, 2013), and Abuja is no exception (Usani, 2005; Nwachukwu, 2014). However, some social groups still believe it is a satisfactory system for them. While the civil

society is needed on sensitisation of standards (Agbola, 1994), authorities are still required to provide systems based on commuter feedback (McAndrews and Marcus, 2015; Sagaris *et al*., 2017).

Respondents (33.0%) learnt about the bus/taxi routes of the city through word of mouth, family and friends (17.6%), radio (11.9%), public notice boards (10.7%), television (5.4%), the transport unions (2.7%), newspapers (2.3%), and the Transport Secretariat (0.8%). Furthermore, 15.7% of the respondents indicated that they got to know the routes through "Others". Lucas (2012, p. 106) stated that "transport disadvantage and social disadvantage interact directly and indirectly to cause transport poverty". The data illustrated here demonstrates that the routes in the city of Abuja are mostly understood through word of mouth or family and friends. This is an exclusion for commuters who are visitors to the city, who do not understand the routes, and who do not understand the announcement of routes done by the bus conductors in local dialects and parlances.

Knowledge of Governance System

When commuter respondents need the FCT Transport policy document, 15.3% know which organisation to send the request, 42.5% have no idea whom to approach, and 42.2% stated the wrong organisation. The correct organisation to approach for the FCT Transport policy is the Transport Secretariat of the Federal Capital Territory Administration (FCTA). Commuter respondents evaluated the existing public transport service in Abuja. They responded that it is reliable (48.7%), efficient (43.7%), effective (46.7%), safe (49.4%), available (60.5%), affordable (82.0%), and accessible (68.6%) but it is not comfortable (53.3%). This indicate that respondents might not know what an ideal effective, efficient, and accessible public transport service is. As Acey (2010) stated, it is the awareness of what is due to people or community that will make them know what to ask for. Therefore, looking at the quality of service of public transport operators in Abuja as stated by Nwachukwu (2014) and Nwaogbe *et al.* (2013), respondents need to be enlightened on what is the standard for this public service.

With regards to public transport, 86.6 % of respondents in this study use public transport, while 13.4% do not. These results corroborate the studies of Usani (2005) and Nwankwo *et al.* (2016) that reported a high dependency of Abuja residents on public transport. Research respondents use public transport daily (41.8%), 3-5 times a week (22.6%), weekly (13.4%), monthly (9.2%), and 13.0% is not applicable. Public transport usage is based on behavioural intention to travel, perception of public transport services, creating an atmosphere of excellent travel on public transport, and the differences of what both genders want (Fu & Juan, 2017).
Based on their experience of using public transport in Abuja, 51.3% of respondents would recommend anyone to use public transportation in the city, 21.8% would not recommend it, and 26.4% responded that it is "Not applicable". Nwachukwu (2014); Nwankwo *et al.* (2016); Ojekunle (2016) have reported the sub-standard services provided by public transport in Abuja. It is not lack of awareness of what is the standard, it is the awareness that there is nothing that can be done to correct the problems (Acey, 2010).

CONCLUSION

Findings in this study have clearly indicated that the citizens are not having a collective action when engaging with the government because of poor knowledge of governance. It has been further discovered that the transport system is not equitably and equally distributed across the city. Additionally, the knowledge of the public transport route in the city is inadequate for visitors to the city, and it is unhealthy for the bus conductors to be announcing the routes all day long. However, removing bus conductors might render them unemployed. Lastly, the city transport system is more suited to vehicular traffic than other modes of transport like rail

or tram. Transport system of the city is not satisfactory to all stakeholders as it is. With this unfair transport system operating in Abuja, the readiness of the city, the people, and the authorities saddled with the responsibility of decarbonising transportation is not possible because the interaction and understanding between the citizens and the authorities is lacking. Based on the findings in this study, it is recommended that the development and implementation of a transport policy that will provide an integrated, multimodal transport system for all users is necessary for the city. Before implementation of the policy, it should undergo different forms of localisation and awareness with all actors involved able to have a reasonable transport system. Thirdly, the city authorities should endeavour to have an evidenced-based decision-making process to assess what is needed to provide road transport, where it is needed, how it is needed, and for whom it is to be provided. This can be achieved through an evidence-based management process that has a database of all transport related indices across the city. Fourth, the acceptability (or not) at policy level of tricycles in the transport system should be finalised, taking into consideration their carbon emissions, their number, the employment they provide, the services they provide, and their regulation to operate in selected areas of the city. Fifth, attitude to driving on the roads should be improved through enlightenment and advocacy. Enforcement of existing traffic laws should be vigorously pursued, and road safety officials should be supported with the tools they need to enforce these laws. Six, government bodies implementing the masterplan and managing the city should work together to achieve the desired goal of setting up the city. Lastly, the Federal Capital Territory and the neighbouring states' authorities need to come together and decide on the issues that cut across their joint boundaries.

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