

Aging, Travel Behaviour and Quality of Life in Planned and Unplanned Communities of Lagos Metropolis

Wale Alade, Mobolaji Olaseni and Waheed Kadiri

Department of Urban and Regional Planning, University of Lagos, Lagos, Nigeria

Abstract: This study provides a comparative study of travel behaviour of the elderly in planned and unplanned communities of Lagos metropolis using Festac Town and Ketu communities as case study. The study argues that the quality of neighbourhood affects the travel pattern and quality of life of old people. A total of 155 old people were randomly selected and interviewed with the aid of questionnaire in the two contrasting neighbourhoods, 80 from Festac Town and 75 from Ketu. The elderly constitutes 1.5% of the population in the two neighbourhoods. Data collected covered socio-economic characteristics, travel behaviour and mobility challenge of respondents. Both descriptive and inferential statistics were used for data analysis. The difference in the socio-economic status and travel pattern of respondents between the neighbourhoods was established with Chi-square test at 0.05 levels of significance. The findings showed that 51.0% of respondents were males, 62.0% were in their 60s, 84.0% had formal education and the mean of years of education was 13.3, 56.8% did not earn > ₦25,000 (156 USD, exchange rate of ₦160-1 USD) per month, 55.2% were self-employed, 41.6% had at least one car in their household and 66.5% had no personal means of mobility. The relationship between respondents' quality of neighbourhood and socio-economic characteristics was statistically significant in terms of number of years of formal education, income per month and household car ownership. The results also showed that 98.0% made at least one trip per day with a mean trip of 1.8; dominant mode was car (32.5%) and 74.8% travelled during the off-peak period. The study concludes that no conscious planning exists for the mobility of the elderly and that significant relationship exists between neighbourhood quality, travel behaviour and quality of life of the elderly in the study area. The study recommends better neighbourhood planning which places emphasis on elderly mobility.

Key words: Aging, mobility, quality of life, travel behaviour, neighbourhood, planning

INTRODUCTION

The study of travel behaviour over the last half century has yielded critical insights into the choices that individuals and households make about their daily travel (Clifton and Handy, 2001). These insights have contributed to the development of more studies in America, Europe and Asia with increasingly sophisticated methods by researchers and transport experts to understand and predict travel behaviour. The outcome of many of these studies have influenced to a great extent several transport planning decisions and policy issues in many countries of the world (Fadare, 1989; Mokhtarian and Meenakshisundaram, 2002; Srinivasan, 2005).

It has been established that the socio-economic characteristics of households and individuals, level of infrastructure, level of economic activities and level of motorization, local culture and city structure, land use pattern, density of development and location of households among others affect households' travel behaviour (Pucher and Renne, 2003; Fujiwara *et al.*, 2005;

Steve, 2006; Fadare, 2001). Of significance among these thematic areas is the influence of households' socio-economic characteristics on travel behaviour (Fadare and Hay, 1990; Pucher and Renne, 2003; Fujiwara *et al.*, 2005; Okoko and Fasakin, 2007).

Scholars have noted that age as a socio-economic attribute of individuals can significantly affect travel behaviour across the globe (Black, 1995; Pucher and Renne, 2003; Morikawa *et al.*, 2001; Fujiwara *et al.*, 2005). Indeed, studies on aging and mobility are legion in developed countries (Pillemer and Glasgow, 2000; Coughlin, 2001; Rosenbloom, 1999; Scheiner, 2006; Helena and Juliet, 2007) but scanty in developing countries (Odufuwa, 2006; Daramola and Adeniji, 2009; Ipingbemi, 2010). The dimension of quality of life in aging and mobility studies is an emerging trend in developing countries and this explains the dearth of literature in this area.

This study seeks to explore the relationship between mobility and quality of life of old people in a planned and unplanned residential neighbourhood in Lagos,

Nigeria. The study is premised on the notion that neighbourhood quality can influence the quality of transport infrastructure and this can affect the mobility and ultimately the wellbeing of old people.

Literature review: Literature on accessibility and mobility of old people in developed nations are quite profuse, encompassing traditional policy precepts of social inclusion (Murray and Davis, 2001; Halden, 2002; Rosenbloom, 1999; Farrington and Farrington, 2005; Farrington, 2007) as well as the more contemporary discourses on active aging (Lindsay, 1999; Gee, 2000; McDaniel, 2003; Coughlin, 2006). The copiousness of empirical studies on elderly mobility has increased the attention given to this population group and have helped to inform benchmarking and evaluative policy and program strategies in several developed countries as observed by Mercado *et al.* (2007) and Daramola and Adeniji (2009). The definitions of concepts and review of literature relating to mobility and quality of life of old people are subsequently presented in this study.

Indeed, the nexus of aging, mobility and quality of life in developing countries deserves a great attention among scholars in the field of travel behaviour for several reasons. For example, demographic and socio-economic indicators in many African countries suggest that the rise in aging population and poverty level are positively related. This situation has implications for the quality of life of old people whose health and resources decline as they grow older.

Aging is defined as the process of growing old and the chronological age of a person in years is used to distinguish between the young and the elderly which varies from one place to another based on life expectancy. The aged are interchangeably referred to as elderly, old age or senior citizens. The definitions of these terms have been controversial because of regional differences in life expectancy. For instance, the UN adopted 60 years in defining an elderly person in developing countries and 65 years for developed countries (Daramola and Adeniji, 2009). For the purpose of this study, elderly people refers to the group of people who are ≥ 60 years in age. This definition is adopted considering the UN viewpoint and the retirement age in Nigeria which is 60 years for majority of public servants.

Mobility is defined as the ability to move about at any point in time for a specific purpose. Pillemer and Glasgow (2000) argued that individual's mobility is largely determined by resources such as time, money, car availability, physical capacity, supply of transportation services and the spatial distribution of land uses. Mobility

contributes to quality of life or well-being by allowing people to meet their own needs. Well-being, defined as the presence of self-esteem, feelings of usefulness and happiness, depends on an individual's success in meeting his or her own needs. Transportation enables people to maintain their needs for daily life maintenance and social contact. Indeed, ability to travel promotes older individuals' social integration and greater social integration leads to physical and psychological well-being (Pillemer and Glasgow, 2000).

Coughlin (2001) noted in a study that many senior citizens identify mobility as a critical element in life satisfaction, hence reduced mobility among older persons is accompanied by lower self-esteem, feelings of uselessness, loneliness, unhappiness and depression (Butler, 1977). Mobility is, therefore very important for quality of life of the elderly. Scheiner (2006) concluded that mobility contributes significantly to well-being and quality of life in terms of activity frequency and activity variety but not in terms of car availability and mode choice and not in terms of activity radius or travel distances.

Several studies exist on the influence of age on mobility. Morikawa *et al.* (2001) observed that age affects the travel behaviour of residents in four Asian cities of Bangkok, Kuala Lumpur, Manila and Nagoya. It was noted that people who are 18 years old or more prefer to use car and motorcycle while the older ones from 65 years and above prefer bus travel due to the free transit passes offered to the aged people in Nagoya. In contrast, travellers who are above 45 years in Bangkok, Kuala Lumpur and Manila dislike bus transport and they may prefer taxi or other para-transit modes. The rail is, however a preferred mode among school children.

Fujiwara *et al.* (2005) revealed that though age structure is similar in selected thirteen cities of Asia, Central America and Middle East, the younger generation's trips are greater in Cairo, Managua and Tripoli. On the other hand, the older ones' trips are greater in Japanese cities, Bucharest and Chengdu in China. The high rate of aged people's trips in Chengdu according to the study might be due to the effect of the single child policy in China. Similarly, Black (1995) observed that the major mobility problem facing young persons in America is unequal access to transport system.

Disaggregating urban population into different age groups has produced good results in understanding the influence of age on mobility, however the mobility challenge of senior citizens is better understood by isolating and focusing attention on their travel pattern. The elderly faces diversity of mobility challenge in their daily activities and they become transportation

disadvantaged as aging process takes its toll. Daramola and Adeniji (2009) cited the report of OECD (2001) on safety and mobility of elders in OECD countries (Whelan *et al.*, 2006). The report concluded that older people will continue to have travel needs after retirement, although the nature of these needs may change. Similarly as people age, they make fewer journeys, mainly due to reductions in the number of work journeys and the average length of all journeys consistently decreases. The number of journeys made for non-work activities remains almost constant to the age of 75 and decreases thereafter with the length of these journeys also reducing with increasing age. However, relative to earlier cohorts, older people are increasingly driving greater distances, partly due to their greater access to cars.

It was further noted from the report that in most countries, increased car use is replacing walking and to a lesser extent, public transport use among older people. The available evidence suggests that as older people develop age-related health problems, they are likely to experience difficulties with driving. Older people who cease driving as a consequence of functional limitations are likely to experience substantial mobility difficulties, given their inability to use other transport forms. More feasible alternative transport modes therefore need to be available and accessible for such, if adequate levels of mobility are to be maintained.

O'Fallon and Charles (2009) in a study on trends in older New Zealanders' travel patterns found out that compared with younger adults (25-59), the older age groups: Did fewer trips as drivers and more as passengers and walking, did fewer trip segments per day, made shorter trip lengths, travelled fewer vehicle kilometres per day or year and made more discretionary trips (social/recreational/personal business). Older people continue to travel less than younger adults, this is true when considering; total number of trip segments per day, mean number of trip segments per day, the typical distance per trip segment, the typical distance per trip segment, average distance per day using 'surface transport' and average distance driven per day.

The study by O'Fallon and Charles (2009) also showed that the total number and mean number of trip segments and distances travelled declined steadily across the age groups (25-59, 60-64, 65-74 and 75+) with the 75+ age group undertaking the fewest trip segments and travelling the least kilometres of all the groups. The study revealed that older people continue to make most of their trips in the off-peak that is older people are more likely to travel between 9 a.m. and 3 p.m. (60% of all trips by adults aged 25+); less likely to be

travelling after 6:30 p.m. (13% of all trips by adults aged 25+) and most public transport trips by 65+ started between 9:01 a.m. and 3 p.m. (63%).

Giuliano *et al.* (2003) examined the relationships between residential location and travel patterns of the elderly. The study noted that travel tends to shift to the middle part of the day with age, trip making declines after age 75 and that aging often leads to physical disabilities that make driving difficult, hazardous or impossible. Some of the recommendations proffered to address the challenges of aging people include promotion of more transit-friendly, mixed-use communities and behavioural adjustments to address mobility of the elderly. Rosenbloom (1999) examined travel characteristics of the elderly by residential location and noted that the elderly living in suburban or rural areas made more trips and travel longer distances than those living in urban areas. In addition, older people living outside urban cores make more of their trips in a car than those who live in central cities.

Studies on aging and mobility in developing countries and Nigeria in particular are quite few compared to what obtains in the global North. Odufuwa (2006) noted that 80% of the elderly in Nigeria lack access to private car and thus rely on public transport facilities that are in deplorable condition and therefore, affects quality of life. In a study of public transport usage by old people in different residential density areas of Ibadan, Nigeria, Daramola and Adeniji (2009) established that though work trips are low in the city, residents in the low density areas made more work trips than their counterparts in both medium and high density areas as they are engaged in one form of work or the other.

The study noted that though, their access and waiting time at bus stop is relatively short (6-10 min), their journey time is relatively long. A significant variation in trip time was noted in different residential densities due to differences in spatial planning. The low density areas were observed to be better planned and this enhances easy flow of traffic unlike what obtains in the medium and high density areas. Ipingbemi (2010) also noted in a study of mobility challenge of elders in Ibadan, a large metropolitan region in Nigeria that public transport is an important mode of transport. The study concluded that vehicle design, poor terminal facilities and long access and waiting time were the dominant challenges of elders' mobility in the city.

It is well established in literature that mobility is critical to well-being and quality of life by virtue of enabling continued access to services, activities and to other people. Indeed, the position of this study is that



Fig. 1: Location of Festac Town and Ketu within Lagos Metropolis

neighbourhood quality to a great extent determines the quality of transport infrastructure which in turn affects quality of life. However, studies available are limited in scope on the relationship between neighbourhood quality and mobility of the elderly. This study, therefore highlights the variation and the similarities in travel behaviour of old people in a planned and unplanned residential neighbourhood of Lagos with a view to determine if quality of neighbourhood affects mobility and quality of life. The study area in the context of Lagos metropolis is subsequently presented.

Study area: Lagos Metropolis is located in Lagos State in the South-Western part of Nigeria. It is the largest metropolitan area in the country with an estimated population of 18.5 million inhabitants (Badejo, 2011). Of this population, metropolitan Lagos, an area covering 37% of the land area of Lagos State is home to 85% of the state population and by 2025, it will become the third largest global city with an estimated population of 24 million people (Lagos State Government, 2010). Lagos has the highest vehicular density in Nigeria (222 vehicles km^{-1}) as against the national average of 11 vehicles km^{-1} . These scenarios have implications for travel demand and mobility of old people who are <5% of the population of the state (Lagos State Government, 2010). The residential neighbourhoods in Lagos can be broadly classified as planned and unplanned. The planned neighbourhoods are <10% of all neighbourhoods in the city. Based on accessibility and planning quality, Festac (planned) Town and Ketu (unplanned) residential neighbourhoods were

purposely selected as case study neighbourhoods. The locations of the two neighbourhoods within Lagos metropolis are shown in Fig. 1.

Festac Town: Festac is an acronym derived from festival of arts and culture and Festac Town was conceived in the early 1970s by the Military Government in Nigeria when the country accepted to host the Second World Black and Africa Festival which took place in 1977 in Lagos, Nigeria. It was planned and built in the short term to accommodate participants of the cultural festival and ultimately to create a model residential community in Lagos. It covered a land area of 1,770 ha (approximately 0.5% of Lagos in 1977) with an estimated population of 120,000 people. It enjoys a high level of accessibility by its location along the Lagos-Badagry expressway in the Southwestern part of the city. The roads within the neighbourhood are provided with sidewalks and drains.

Ketu: Unlike Festac Town, Ketu emerged as an organic neighbourhood near a major transport node (Ojota) in Northern part of the city. It is one of the few communities located along two major corridors (Ikorodu road and Lagos-Ibadan expressway). It is a densely populated unplanned community largely occupied by low income earners. It also enjoys a high level of accessibility like Festac Town but lacks adequate facilities which enhance quality of life. Many of the roads in Ketu are unpaved with no drainage and walkways. The common bus stops are not properly designated and lack shelters for passengers, however there are BRT bus stops along Ikorodu road with decent bus stops which are not provided with seats that the elderly could use while waiting for the next bus (Fig. 2).

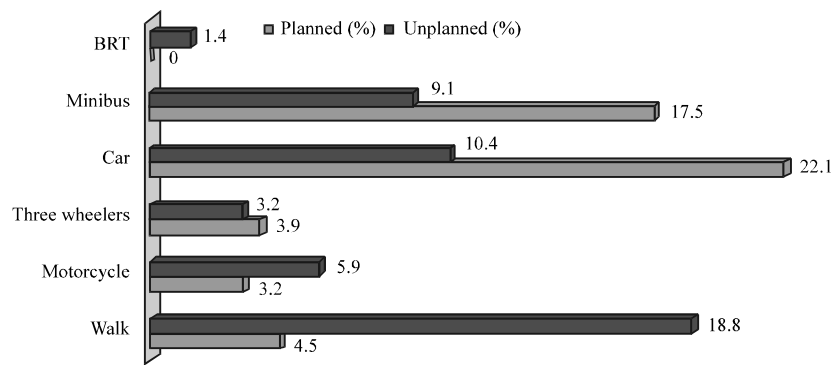


Fig. 2: Trip mode of respondents

MATERIALS AND METHODS

The 2010 edition of Household Survey in Lagos State showed that old people (≥ 60 years) constitute 5% of the population of the state (Lagos State Government, 2011). The study through a cross-sectional survey, utilized primary data obtained from 155 (1.5%) aged people in two communities in Lagos. Simple random sampling technique was used to select 80 and 75 respondents in Festac Town and Ketu, respectively. The use of systematic random sampling was precluded due to high incidence of non availability of an aged respondent in the nth building selected. A questionnaire was administered on every respondent to obtain information on their socio-economic characteristics and the previous day travel attributes. The difficulty faced by respondents in the accurate estimation of their trip distance was a major challenge in data collection on their travel attributes. Thus, trip time was found more reliable as a means of estimating trip distance. The obtained data were analyzed using descriptive and inferential statistics. The significance of the relationship between quality of respondents' neighbourhood and travel pattern was determined through Chi-square test at 0.05 significant levels. The results were presented with tables, charts and graphs.

RESULTS

Socio-economic characteristics of respondents: The study showed that 51.0% of respondents were males, 62.0% were in their 60s (60-69 years), 84.0% had formal education and the mean of years of education was 13.3. Similarly, 56.8% did not earn $> \text{₦}25,000$ (156 USD, exchange rate of $\text{₦}160=1$ USD) per month, 55.2% were self-employed, 41.6% had at least one car in their household and 66.5% had no personal means of mobility (Table 1). The predominance of male respondents could be explained by the fact that they naturally household heads and tend to be the voice of their households. The

predominance of respondents in their 60s is a reflection of life expectancy of 51 years in the country (World Bank, 2012). Again, the high level of poverty (54.4%) in the country can be attributed to the dominance of low income earners among the elderly (Federal Government of Nigeria, 2009) and the prevalence of self employed among the respondents is an indication of the dominance of informal sector in the Nigeria economy. Besides, majority of respondents are still engaged in one form of employment or the other due to prevalence of poverty and lack of social security for the elderly in the country (Ipingbemi, 2010).

The study revealed through Chi-square test that significant variation existed in the socio-economic characteristics of old people between the two types of neighbourhood in terms of number of years of formal education ($\chi^2 = 70.903$, $p < 0.05$), income per month ($\chi^2 = 62.462$, $p < 0.05$) and household car ownership ($\chi^2 = 17.453$, $p < 0.05$). Respondents in Festac Town (planned neighbourhood) were more educated, earned higher income and owned more cars per household than their counterparts from Ketu (unplanned neighbourhood). It has been established that planned neighbourhoods in Lagos are generally designed as low or medium density residential areas and are usually inhabited by households and individuals with higher socio-economic status. The result in general showed a strong relationship between residents' quality of life as reflected by their socio-economic attributes and neighbourhood quality.

Travel behaviour of respondents: The results of travel behaviour of respondents as presented in Table 1 showed that 98.0% made at least one trip per day. The mean trip of 2.1 generated per day in Festac Town was higher than that of Ketu (1.4). The combined mean trip generated by respondents from the two neighbourhoods was 1.8. The observed variation in trip generation between Festac Town and Ketu was statistically significant ($\chi^2 = 26.400$,

Table 1: Travel characteristics of respondents

	Neighbourhood type		
Respondents	Planned (%)	Unplanned (%)	Total (%)
Trip frequency			
0	1.3	0.0	1.3
1	18.1	35.5	53.6
2	18.1	8.4	26.5
3	9.0	3.2	12.2
4+	5.1	1.3	6.4
Total	51.6	48.4	100.0
Trip purpose			
Leisure walk	0.7	5.2	5.9
Religious	0.7	7.8	8.5
Social	15.7	9.2	24.8
Shopping	9.2	14.4	23.5
Medical	4.6	3.9	8.5
Work	20.9	7.9	28.8
Total	51.6	48.4	100.0
Trip mode			
Walk	4.5	18.8	23.3
Motorcycle	3.2	5.9	9.1
Three wheelers	3.9	3.2	7.1
Car	22.1	10.4	32.5
Minibus	17.5	9.1	26.6
BRT	0.0	1.4	1.4
Total	51.2	48.8	100.0
Time of departure			
Morning peak period	9.3	12.6	21.9
Off peak period	41.1	33.7	74.8
Evening peak period	1.3	2.0	3.3
Total	51.7	48.3	100.0
Trip time (min)			
1-30	24.2	34.0	58.2
31-60	17.7	13.0	30.7
>60	9.1	2.0	11.1
Total	51.0	49.0	100.0
No. of vehicles used per trip			
None	3.9	19.7	23.6
1	28.3	19.1	47.4
2	7.2	8.6	15.8
3+	11.9	1.3	13.2
Total	51.3	48.7	100.0
Trip time to bus stop (min)			
1-5	51.5	36.7	88.2
6-10	03.0	4.4	7.4
>10	01.4	3.0	4.4
Total	55.9	44.1	100.0
Waiting time at bus stop (min)			
1-5	54.4	33.8	88.2
6-10	0.0	1.5	1.5
≥10	1.5	8.8	10.3
Total	55.9	44.1	100.0

$p < 0.05$). The pattern of trip purpose appeared almost even. Work (28.8%), social (24.8%) and shopping (23.5%) trips were dominant. Of the 28.8% who engaged in work related trips, 20.9% were located in Festac Town.

On the contrary of the 23.5% who made shopping trips, the percentage of those in Ketu (14.0%) was higher than those in Festac Town. The large proportion of employed respondents is responsible for predominance of work trip.

The pattern of trip mode is somehow similar to that of trip purpose. Those who used car, bus and walk modes were 32.5, 26.0 and 23.3%, respectively. The difference in trip mode between the two neighbourhoods was statistically significant ($\chi^2 = 29.866$, $p < 0.05$). The proportion of those who used car mode in Festac Town (22.1%) was higher than those in Ketu (10.4%). On the contrary, those who used walk mode in Festac Town (4.5%) were much lower than their counterparts in Ketu (18.8%). In both Festac Town and Ketu, it was found that 21.0% of respondents were not satisfied with their usual mode of travel, although the proportion of this category of respondents in Festac town (13.8%) almost doubles the figure (7.2%) for Ketu.

The pattern of time of departure of respondents is lopsided as 74.8% travelled during the off-peak period of the day (9 a.m. to 4 p.m.). The trip time of majority (58.2%) did not exceed 0.5 h. The observed mean trip time of 0.58 h for all respondents was < 0.68 h in Festac Town but higher than that of 0.5 h in Ketu. The difference in trip time between the two neighbourhoods was statistically significant ($\chi^2 = 17.889$, $p < 0.05$). Besides, 47.4% used one vehicle/trip/day and another 15.8% used two vehicles. The mean of number of vehicles used per day was 1.6. Similarly, 47.2% of respondents used public transport, 41.7% spent between 1 and 5 min to bus stop with walking (38.1%) being the dominant mode while 41.7% experienced a waiting time of 1-5 min at the bus stop.

Majority (76.2%) needed no one to accompany them for their daily trips and this suggests that age and health minimally affect the mobility and travel behaviour of old people in the study area. The mobility challenges identified include congestion (39.0%), cost of travel (16.9%), health (15.4%), poor road condition (11.8%) and safety (9.6%). The observed challenges varied significantly between the two neighbourhoods ($\chi^2 = 64.826$, $p < 0.05$). All respondents (21.4%) who identified road condition and safety as mobility challenge were from the planned neighbourhood while all those who identified health as their major challenges are from unplanned neighbourhood.

DISCUSSION

The results obtained in this study showed some similarities and differences with the experience in other parts of the world. For instance, the observed trip generation in the two neighbourhoods is similar to what obtained in selected cities of Asia, Central America and Middle East (Fujiwara *et al.*, 2005). However in Ibadan, Nigeria, Daramola and Adeniji (2009) noted that the trip

rate of old people in planned (low density) residential areas was higher than what obtained in unplanned (high density) residential areas. The road system in planned residential areas are better planned, enhances free flow of traffic and thus, increases the propensity of old people to travel. Besides, the predominance of work trip among the aged is influenced by the large proportion of employed respondents. This is similar to what obtained in Ibadan (Ipingbemi, 2010) but at variance with the experience in Great Britain and some other developed countries where shopping and medical trips predominate (Rosenbloom, 1999; Helena and Juliet, 2007). Medical trip is expected to be high among old people, however poor access to medical facilities in the study area limits the number of medical trips undertaken by respondents.

The dominance of car mode among the elders is at variance with the general pattern in Lagos where public transport (bus) is the dominant mode. This observation may be related to the reckless driving habit and lack of care for old people by public transport operators. This has been established in Zimbabwe where old people were pushed and shoved by younger passengers and in Brazil and Argentina where buses do not stop for old people. The concentration of old peoples' travel during the off peak period is due to their inability to compete with the younger people for road space and seats in public transport. This is similar to the findings of O'Fallon and Charles (2009) in a study on trends in older New Zealanders where most of their trips were undertaken between 9 a.m. and 3 p.m. Indeed, their being forced to travel during the off peak period is accompanied by lower self-esteem, feeling of uselessness, loneliness, unhappiness and depression (Butler, 1977). The low trip time and waiting time to bus stop in the study areas could be explained by the fact that majority of respondents travel during the off peak period.

Indeed, several policy issues are generated by the findings in this study. The socio-economic attributes of respondents showed that the quality of life in a planned residential neighbourhood is better and higher than in unplanned neighbourhood and this is also reflected in their travel behaviour, hence it could be argued that urban planning positively influences quality of life. Again, the study established that car ownership and driving ability is low in the two neighbourhoods unlike in the United States where there is at least a car in the poorest household (Pucher and Renne, 2003). The mode split suggests a high reliance on public transport (57.6%). However, the public transport system in the city is unfriendly to the aged. The BRT system which could have been a succor to the old people is highly inaccessible to them as only 1.4% uses this mode.

The low level of access to BRT could be explained by the fact that the infrastructure has not been extended to Festac Town. On the other hand, residents of Ketu have better access to BRT but the low level of patronage may be due to longer waiting time (>10 min) at BRT bus stops than at other bus stops (<5 min). Therefore, efforts should be made to minimize waiting time at BRT bus stops and extend the infrastructure as quickly as possible to other places including Festac Town. Again, the listing of traffic congestion as a major mobility challenge by 39% of respondents calls for concern. Old people cannot withstand stress associated with traffic congestion in Lagos where average trip time is >1.5 h and majority travel in public transport vehicles that are not convenient.

Cost of travel was identified by another 16.8% of respondents as mobility challenge. This is not strange considering the fact that many old people are less active economically combined with the level of poverty in the country. A cue could be taken from the experience in Nagoya, Japan where majority of old peoples use bus mode due free transit given to them (Morikawa *et al.*, 2001). Similarly, another 15.4% of respondents identify health as their mobility challenge. Again, this calls for concern in the sense that majority lacks personal mobility whiles the public transport as an alternative is costly and user unfriendly to the aged. A deliberate effort must be put in place to enhance mobility of the elderly in the city. There should be more of primary health care facility in every neighbourhood to minimize the distance of health related trips of old people. Finally, the dissatisfaction of 21% of respondents with their usual mode of travel showed that the transport system in the study area needs more improvements, especially in areas that affect the mobility of old people.

CONCLUSION

The thrust of this study is that mobility and quality of life of old people are significantly related to quality of neighbourhood. Quality of life in this context is linked with the socio-economic attributes of the people and the quality of transport system available to them in the pursuit of their daily activities. Based on the findings in this research, the study concludes that old people in planned residential neighbourhoods tend to have higher quality of life in terms of socio-economic status and mobility than those in unplanned communities and that better planning of residential neighbourhoods and transport facilities in favour of old people in unplanned communities will improve their quality of life.

REFERENCES

- Badejo, B., 2011. The transportation realities, challenges and opportunities of Lagos State: The leadership imperatives and synergies. 50th Anniversary Lecture of Great Independence Hall, University of Ibadan, pp: 8-10.
- Black, A., 1995. Urban Mass Transportation Planning. McGraw-Hill Publishing, New Jersey, USA., ISBN-13: 9780070055575, Pages: 448.
- Butler, R.N., 1977. Why Survive? Harper and Row Publishing Inc., New York, USA.
- Clifton, K.J. and C.L. Handy, 2001. Qualitative methods in travel behaviour research. Proceedings of the International Conference on Transport Survey Quality and Innovation, August 5-10, 2001, King National Park, South Africa -.
- Coughlin, J., 2001. Transportation and older persons: Perceptions and preferences. American Association of Retired Persons, New York, USA.
- Coughlin, J., 2006. Invention vs. innovation: Technology and the future of aging. *Aging Today*, 27: 3-4.
- Daramola, A. and O. Adeniji, 2009. Mobility issues for the elderly in Ibadan city, Nigeria. Proceeding of the Conference on Emerging Global City: The African Challenge, (EGC'09), Department of Urban and Regional Planning, University of Lagos, Nigeria, pp: 361-377.
- Fadare, S.O., 1989. Analysis of factors affecting household trip generation in the residential areas of Ibadan. *Ife Res. Publ. Geogr.*, 3: 34-48.
- Fadare, S.O. and A.M. Hay, 1990. Housing densities, life style and travel behaviour in a third world city: The example of Ibadan. *Niger. J. Econ. Social Stud.*, 32: 177-191.
- Fadare, S.O., 2001. Urban form and households travel behaviour: Implications for Nigerian cities. Inaugural Lecture, Obafemi Awolowo University, Ile-Ife, Nigeria.
- Farrington, J.H. and C.J.T. Farrington, 2005. Rural accessibility, social inclusion and social justice: Towards conceptualization. *J. Transp. Geogr.*, 13: 1-12.
- Farrington, J., 2007. The new narrative of accessibility: Its potential contribution to discourses in (transport) geography. *J. Transp. Geogr.*, 15: 319-330.
- Federal Government of Nigeria, 2009. Report of the vision 2020 National technical working group on urban and rural development. Federal Government of Nigeria.
- Fujiwara, A., S. Soehodho, T. Hyodo and C. Montalbo, 2005. Urban travel behavior characteristic of 13 cities based on household interview survey data. *J. East Asia Soc. Transp. Stud.*, 6: 23-38.
- Gee, E.M., 2000. Voodoo Demography, Population Aging and Social Policy. In: *The Overselling of Population Aging: Apocalyptic demography*, Gee, E.M., G. Gutman and D. Mills (Eds.). Oxford University Press, Oxford, UK.
- Giuliano, G., H. Hsi-Hwa and H. Kyoung, 2003. Travel patterns of the elderly: The role of land use. Final Report Metrans Project 00-8, School of Policy, Planning and Development, University of Southern California.
- Halden, D., 2002. Using accessibility measures to integrate land use and transport policy in Edinburgh and the Lothians. *Transport Policy*, 9: 313-324.
- Helena, T. and S. Juliet, 2007. Benchmarking accessibility for the elderly persons. Proceedings of the 11th International Conference on Mobility and Transport for Elderly and Disabled Persons (TRANSED), June 18-22, 2007, Montreal, Canada -.
- Ipingbemi, O., 2010. Travel characteristics and mobility constraints of the elderly in Ibadan, Nigeria. *J. Transp. Geogr.*, 18: 285-291.
- Lagos State Government, 2010. Lagos: Bridging the urban divide. Document on the Fifth World Urban Forum, Rio Dejenairo.
- Lagos State Government, 2011. Household survey 2010, Lagos bureau of statistics. Ministry of Economic Planning and Budget, pp: 24-25.
- Lindsay, C., 1999. Seniors: A diverse group aging well. Catalogue, No. 11-008, Canadian Social Trends, Statistics Canada.
- McDaniel, S.A., 2003. Toward disentangling policy implications of economic and demographic changes in Canada's aging population. *Can. Public Policy*, 24: 491-510.
- Mercado, R., A. Paez and K.N. Bruce, 2007. Policy areas impinging on elderly transportation mobility: An explanation with Ontario, Canada as example. SEDAP Research Paper No. 187.
- Mokhtarian, P.I. and R. Meenakshisundaram, 2002. Patterns of telecommuting engagement and frequency: A cluster analysis of telecenter users. *Prometheus*, 20: 21-37.
- Morikawa, T., T. Yamoto, D. Dissanayake, N. Sanko and S. Kurauchi *et al.*, 2001. Travel behaviour analysis and its implication to urban transport planning for Asian cities, case studies of Bangkok, Kuala Lumpur, Manila and Nagoya. International Cooperative Research Activity (ICRA) Report, Graduate School of Environmental Studies, Nagoya University, Japan.
- Murray, A.T. and R. Davis, 2001. Equity in regional service provision. *J. Reg. Sci.*, 41: 577-600.

- O'Fallon, C. and S. Charles, 2009. Trends in older people travel patterns, analysing changes in older New Zealanders travel patterns using the ongoing New Zealand Household Travel survey. New Zealand Transport Agency Research Report No. 369.
- OECD, 2001. Ageing and Transport: Mobility Needs and Safety Issues. Organization for Economic Co-operation and Development, Paris, France.
- Odufuwa, O.B., 2006. Enhancing mobility of the elderly in Sub-Saharan African cities through improved public transportation. *J. Int. Assoc. Traffic Saf. Sci.*, 30: 60-66.
- Okoko, O. and J.O. Fasakin, 2007. Trip generation modelling in varying residential density zones: An empirical analysis for Akure, Nigeria. *Social Sci.*, 2: 13-19.
- Pillemer, K. and N. Glasgow, 2000. Social Integration and Aging. In: *Social Integration in the Second Half of Life*, Pillemer, K., P. Moen, E., Wellington and N. Glasgow (Eds.). The John Hopkins University Press, Baltimore, USA.
- Pucher, J. and J. Renne, 2003. Socio-economics of urban travel: Evidence from the 2001 National Household Travel Survey. *Transp. Q.*, 57: 49-77.
- Rosenbloom, S., 1999. The mobility of the elderly: There's good news and bad news. Proceedings of the 27th Annual Conference on Transportation in an Aging Society: A Decade of Experience, November 7-9, 1999, Bethesda, Maryland, pp: 3-21.
- Scheiner, J., 2006. Travel patterns and mobility needs of senior citizens. Proceedings of the Conference on Prosperity, Mobility and Demographic Change in European Cities, November 27, 2006, Berlin -.
- Srinivasan, S., 2005. Influence of residential location in travel behaviour of women in Chennai, India. Division of Engineering and Applied Sciences, Harvard University.
- Steve, M.D., 2006. Travel to and within Delaware 2006. <http://www.pdfsearchengine.org/>.
- Whelan, M., J. Lagford, J. Oxley, S. Koppel and J. Charlton, 2006. The elderly and mobility: A review of literature. Report No. 255, Study Sponsored by Swedish Road Association.
- World Bank, 2012. Nigeria at a Glance. <http://www.devdata.worldbank.org>.