



Keywords

Road,
Transport,
Economic,
Nigeria

Received: March 15, 2015

Revised: March 30, 2015

Accepted: March 31, 2015

Road Transport Infrastructure and Economic Activities in Ikot Abasi Urban, Akwa Ibom State, Nigeria

Nsikak-Abasi A. Etim¹, Victor E. Umoren²

¹Department of Agricultural Economics and Extension, University of Uyo, Uyo, Akwa Ibom State, Nigeria

²Department of Urban and Regional Planning, University of Uyo, Uyo, Akwa Ibom State, Nigeria

Email address

boboetim@gmail.com (Nsikak-Abasi A. E.)

Citation

Nsikak-Abasi A. Etim, Victor E. Umoren. Road Transport Infrastructure and Economic Activities in Ikot Abasi Urban, Akwa Ibom State, Nigeria. *American Journal of Environmental Policy and Management*. Vol. 1, No. 1, 2015, pp. 1-5.

Abstract

The relationship between road transport infrastructure and income generating activities cannot be overlooked. This study empirically analysed road transport infrastructure and the level of economic activities in Ikot Abasi urban. Using the multi stage sampling procedure, 400 residents of Ikot Abasi urban were sampled and primary data were obtained with the aid of questionnaires. Data were analysed using various analytical techniques including tables, histograms, percentage and Pearson Product Moment Correlation. Results of analysis showed that majority of residents of Ikot Abasi urban were engaged in petty trading. Findings also indicated that the rate of economic activities increased with availability and provision of road transport infrastructure as evidenced in the roads constructed and economic activities carried out. Although, most residents in Ikot Abasi urban were engaged in petty trading, policy concerns in the next millennium should increasingly focus on the provision of road transport infrastructure since reducing poverty cannot be successful without adequate transport infrastructure and services.

1. Introduction

Transport infrastructure development constitutes an important aspect of life and socio economic development and road infrastructure in particularly represents if not the engine, the wheels of economic activities in most developing countries, Nigeria inclusive. Transportation was recognized by Cresswell (1979) cited in Ikpong(2011) as one of the several critical and essential ingredient in urban planning which should be included when the “dish” is prepared and not added “seasoning” to taste. Umoren et al (2011) also documented that like most economic activities that are influential in infrastructure development, the transport sector is an important component of the economy impacting on development and well being of its populace. This is because, when transportation systems are effective, they provide economic and social opportunities and benefits that result in accessibility to markets, employments and additional investments. On the other hand, when transportation system is deficient in terms of capacity or reliability, they can have an economic cost such as reduced or missed opportunities thus, the assertion that transportation is simply a mechanism in economic development is not out of place. (Rodrigue, 1998)

Transport is the conveyance of people, goods, information and services from one

geographic location to another for some purposes. According to Arosayin (1998), the transport sector of the economy provide the means of interaction and integration of various regions and sectors of any country economy. Transportation becomes the backbone of any economic growth.

These are a number of reasons why good transportation infrastructure can be advantageous for economic development. First, it plausibly reduces trade costs and promotes market integration. This should lead to a convergence in price, reduces price volatility and reallocate resources along the lines of comparative advantage. It also increases market size, which allows firms to capture gains from increasing returns and promotes more intense competition. Second, it promotes factor mobility e.g. it is easier to migrate to city if one can return easily whenever needed; easier to lend to a borrower whose project you can visit and easier to deposit your savings in a bank if the bank is more accessible. Third, it is easier to take advantage of opportunities for investment in human capital (Banerjee et al. 2004). The provision of transport infrastructure and services are important in reducing poverty. No meaningful poverty reduction public action and program can be successful without adequate transport infrastructure and services. Achieving the millennium Development Goal will be uneasy without first providing adequate transport facilities. Transportation according to Egbu and Kalu (2006) aids in development and serves as productive measures geared towards solving the problem of economic development (Mabogunje, 1974 cited in Ikpong, 2011). Economic and other social activities and services rely almost entirely on transportation system for the physical movement of people, goods and services from one location or point to another (Breth, 2004 and Umoren et al 2011).

Since the demand for transport is strongly linked to the level of economic activity and developmental requirements, the growth rate increase implies higher transport demand. As population continues to increase and the rate of economic activities is rising, it becomes imperative to improve living standards and reduce poverty by providing adequate transport infrastructure to cope with the economic activities. This study was therefore carried out to analyse transport infrastructure in relation to economic activities.

2. Methodology

Study Area, Sampling and Data Collection Technique

The study was conducted in Ikot Abasi Local Government Area of Akwa Ibom State. Ikot Abasi is located in the South West corner of Akwa Ibom State at latitude 40°32' to 40°N and longitude 70 °25' to 70 °45 E. It is bounded by Oruk Anam Local Government Area in the North, Mkpato Enin and Eastern Obolo Local Government Area in the West and the Atlantic Ocean in the south. The population of Ikot Abasi is 132,608 people (NPC, 2006). The study area is in the rainforest zone and has two distinct seasons viz: the rainy and the short dry season. The annual precipitation ranges

from 2000 – 3000mm per annum.

The study employed the multistage sampling procedure. The first stage involved the purposive selection of 4 sectors using the major roads viz: Ibekwe road, Hospital road, Akpakpan Udo Ekpo road and Consulate road. The second stage involved the random selection of 100 households from each of the sectors to make a total of 400 households. With the aid of questionnaires, primary data on various economic activities were obtained.

Data were analyzed using histograms, descriptive statistics such as tables, frequencies, percentage and Pearson Product moment correlation(r). Okoko (2001) however described descriptive statistics as methodology for summarizing or describing numerical data.

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{\{n\sum x^2 - (\sum x)^2\} \{n\sum y^2 - (\sum y)^2\}}}$$

Where r = Pearson correlation coefficient

x = Values in first set of data

y = values in second set of data

n = total number of values

3. Results and Discussion

Results of below figure 1 reveals a variation of economic activities engaged by residents of Ikot Abasi Urban.

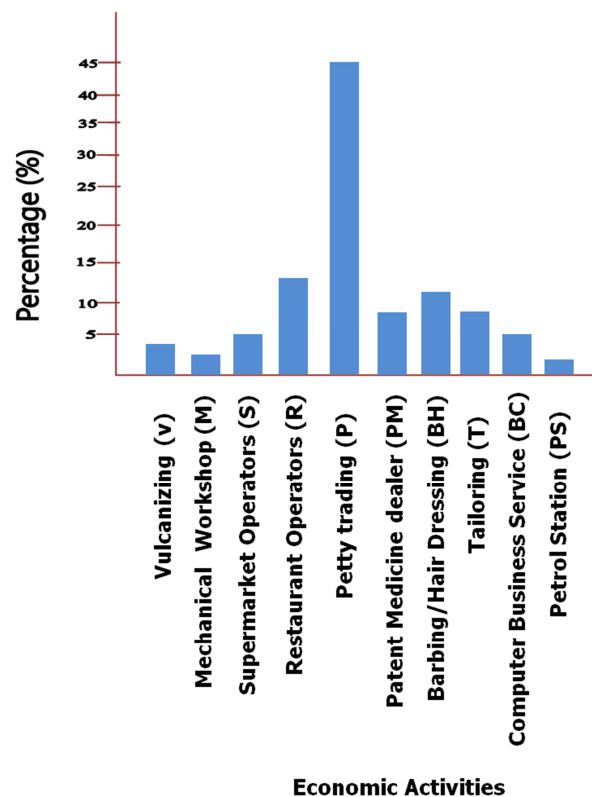


Fig. 1. Economic Activities in Ikot Abasi Urban

Residents of Ikot Abasi Urban who were engaged in petty trading constituted the highest (45 percent) economic activity.

This was followed by barbers, restaurant operators which constituted 11 percent, 10.75 percent, respectively and, patent medicine dealers and tailors constituted 8.75 percent each. Filling station owners were the least (1.25 percent) in

the study area. The fact that most of the inhabitants were involved in petty trading imply that the primary means of livelihood for men and women was trading.

Table 1. Number/Percentage of People Employed in the Economic Activities

Socio-economic Activities	Frequency (No.)	Number of Employees	Total	Percentage (%)
V	15	9	24	2
M	7	32	39	4
S	17	120	137	13
R	43	125	168	15
P	180	150	330	30
PM	35	24	59	5
BH	44	32	76	7
T	35	120	155	14
BC	19	58	77	7
PSI	5	27	32	3
TOTAL	400		1097	100

Table 2 shows the total number of people employed by the various economic activities distributed along the major roads in the 4 sectors. It indicates that petty trading business engaged the highest number of employees in the 4 sectors as indicated by 40 percent of the total economic activities. Closely followed was restaurant/bar operators' with 15

percent and the least level of employment is vulcanizing with 2 percent. The reason for these levels of employment is that petty trading was the predominant economic activity in the study area while vulcanizing which does not necessarily need assistance was scarcely distributed in the area

Table 2. Pattern of Distribution of Economic Activities along Roads in Sector 1

S/N	Economic Activities	Sector 1 Ibekwe Road	Percentage (%)	Hierarchy of Roads
1	V	5	3	Access Collector and Distributor
2	M	4	2	
3	S	7	4	
4	R	23	13	
5	P	80	44	
6	PM	15	8	
7	BH	20	10	
8	T	17	9	
9	BC	9	5	
10	PS	3	2	
	Total	183	100	

Table 3. Pattern of Distribution of Economic Activities along Roads in Sector 2

S/N	Economic Activities	Sector 2 Hospital Road	Percentage (%)	Hierarchy of Roads
1	V	5	5	Access and Collector
2	M	2	2	
3	S	5	5	
4	R	10	9	
5	P	50	47	
6	PM	12	11	
7	BH	9	8	
8	T	8	7	
9	BC	5	5	
10	PS	1	1	
	Total	107	100	

Table 4. Pattern of Distribution of Economic Activities along Roads in Sector 3

S/N	Economic Activities	Sector 3 AkpanUdoekpo Road	Percentage (%)	Hierarchy of Roads
1	V	3	4	Access and Collector
2	M	1	1	
3	S	4	5	
4	R	6	8	
5	P	35	48	
6	PM	5	8	
7	BH	7	10	
8	T	8	11	
9	BC	3	4	
10	PS	1	1	
	Total	73	100	

Table 5. Pattern of Distribution of Economic Activities along Roads in Sector 4

S/N	Economic Activities	Sector 4 Consulate Road	Percentage (%)	Hierarchy of Roads
1	V	2	6	Access
2	M	0	0	
3	S	1	3	
4	R	4	12	
5	P	15	46	
6	PM	3	9	
7	BH	4	12	
8	T	2	6	
9	BC	2	6	
10	PS	0	0	
	Total	33	100	

Table 3, 4, 5 and 6 reveals that petty trading business is the predominant economic activity in the four (4) sectors based on the tables above. Sector 1, 3, 4, has 44 percent, 47 percent, 48 percent and 46 percent of residents engaged in petty trading.

It further reveals that the distribution of economic

activities varies according to the hierarchy of roads and adjoining roads. This is indicated by the total number of economic activities taking place in each sector where sector 1 = 183, Sector 2 = 107, sector 4 = 73 and sector 4= 48.

Table 6 shows the length of roads constructed between 1988 and 2008.

Table 6. Length of the Roads developed between the year (1988 – 2008) and the distribution of economic activities

Year	Length of Road Constructed (km)	No. of Economic Activities	Percentage (%)
1988 – 1990	7.5	35	4
1990-1992	10.0	40	5
1992-1994	14.3	53	6
1994-1996	17.5	63	7
1996-1998	21.3	75	9
1998-2000	24.7	83	10
2000-2002	28.9	95	11
2002-2004	34.2	109	13
2004-2006	39.7	132	16
2006-2008	50.8	156	19
Total	248.9	841	100

Table 6 reveals that as the number of roads constructed in relation to the total length increased over the years. The number of economic activities distributed along these roads increased correspondingly, thus, the length of road

constructed becomes the independent variable (x) while the distribution of economic activities is the dependents variable (y). This is evident as the longest (50.8 kilometer) of roads were constructed between 2006-2008 whereas the shortest

(7.5 kilometer) of road was constructed between 1988 – 1990.

The Pearson Product Moment Correlation technique was applied to the variables to determine the correlation between them.

$$\frac{1/10 \times 4869.0}{12.0 \times 37.5} = \frac{0.1 \times 4869.0}{487.5}$$

$$r = 0.99$$

The correlation coefficient of 0.99 means that there is a strong positive relationship between length of roads constructed and the distribution of economic activities. This means that as the length of paved roads increased, the distribution of economic activities increases correspondingly.

This reveals that the rate of economic distribution pattern along the roads differs according to the four sectors in the study area. The socio-economic activity that is widely recognized and patronized in the study area is petty trading business which remains high across the four (4) sections in the study area.

The study also reveals that the higher the length of road constructed, the higher the number of economic activities distributed along it. This implies that economic activities are a function of paved roads than unpaved ones.

4. Conclusion

The livelihood activities identified in this study were vulcanizing, mechanical operators, supermarket and restaurant operators, petty trading, patent medicine dealers, barbers and hairdressers, tailoring, computer business and filling station operators. Different analytical techniques ranging from tables, histograms, percentages and pearson product moment correlation coefficient were utilized to analyse the data. Result from the different sectors in the study area revealed that the predominant means of livelihood of the inhabitants was petty trading while the least activity engaged by residents as a means of livelihood was operating a filling station. This may not be unconnected with the poverty status of the people coupled with the huge capital required to establish a filling station. The fact that most

inhabitants were petty traders suggest that they were within the lower income earning group. Findings suggest that economic activities could be stimulated with enhanced road transport infrastructure. Policy option that favour the provision of development infrastructure is a sensible decision.

References

- [1] Arosayin, G. T. (1998). Determinants of Transport Output in Nigeria. *Journal of Transport Studies*, 2 (1) 69-75.
- [2] Breth,S.A(2004).From subsistence to Sustainable Agriculture in Africa. Mexico City. Sasakawa Africa Association
- [3] Cresswell, R. (1979). *Urban Planning and Public Transport*. The Construction Press Ltd. Lancaster, England.
- [4] Ikpong, V.M (2011).Critical Assessment of the impact of transportation on Socio-economic development of Ikot Abasi urban .Unpublished B.Urp Project Department of Urban and Regional Planning, University of Uyo.
- [5] Okoko, E. (2001). *Quantitative Techniques in Urban Analysis*. Kraft Books Limited, Ibadan Nigeria.
- [6] Mabogunje, A. L. (1974). *Infrastructure in Planning Process*. University of London Press, London.
- [7] Rodrigue, J. (1998). *The Geography of Transport System*. Department of Economics and Geography, Hofstra University Hempstead, U.S. A.
- [8] Umoren, V. E., D. D. Eni and N. A. Etim (2011). Road Transport Infrastructure, Socio-Economic Development and Poverty Reduction in Akwa Ibom State, Nigeria. *International Journal of Agricultural and Rural Development*. Arosayin 3 (1&2): 20-30.
- [9] Egbu, A. U. and Kalu, A. O. (2006). *Transportation Planning Approaches and Strategies to Urban and Regional Environment*. L. Lins Consult Nig. Okigwe
- [10] NPC (National Population Commission) 2006). "Population Census of the Federal Republic of Nigeria" Analytical Report at the National Population Commission, Abuja.
- [11] Banerjee, A., E.Duflo and N. Qian (2004). "The Railroad to Success: The Effect of Access to Transportation Infrastructure on Economic Growth in China", MIT working Papers, MIT 2004.