

Analysis of Rural Transportation of Agricultural Produce in Ijebu North Local Government Area of Ogun State Nigeria

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Abstract

This research analyzed rural-urban transportation on agricultural produce in Ijebu north local government area of Ogun State. A well-designed questionnaire, personal observation and descriptive and inferential statistics were employed. The respondents consist of (378) of the total population, while simple random technique was used to select 113 (30%) farmers and 95 (25%) produce transporters were equally selected systematically, 170 (45%) produce traders were purposively selected to gather information on socio-economic, agricultural produce, transportation of produce and challenges of moving agricultural produce.

Findings show that combination of food crops, cash crops, tubers, poultry, fruits, vegetables and poultry product dominate Ijebu North Local area in which farmers combined cultivation of those crops. The respondent use the following means of transportation in the study area i.e. walking, motor bike, bus, pick-up van and car. Roads in the study area are in a deplorable condition, the type of vehicle used by farmers and traders depend on the volume of the agricultural produce, while petrol, maintenances, ticketing and extortion are the operating cost of vehicle in the movement of produce by the transporters.

The research recommends among others things the provision of good storage facility, massive road rehabilitation, provision of modern public transport, empowering agricultural agency to complement the existing effort and extension of rail services towards enhancing transportation of agricultural produce in Ijebu North Local Government area.

Keywords: Agriculture; Rural transport; Farmers; Physical distribution and Ijebu-North

Introduction

As a society grows in terms of population and functions, the need for interaction among its various components also grows thereby requiring quality and effective transportation systems. In the words of Mummy "there is no escape from transport even in the most remote and least developed of inhabited regions".

Adesanya et al. [1] had observed that, rural travel and transport in most rural areas in Nigeria still take place with great difficulties thereby compounding and worsening the problem of rural productivity and rural poverty. Several studies have been conducted on the nature and characteristics of rural roads which led to the problems of rural accessibility.

Agricultural produce consist of various food crops, cash crops, livestock and poultry produce as well as the perishables such as vegetables, tomatoes, pepper and fruits among others that are produced majorly in rural settlement.

The significant contribution of transport and mobility to development and the livelihoods of poor people are widely recognized. However, the development of the transport sector has become a mirage thereby undermine the role of transport in improving poor people's health. In the context of the need to step up development activity to meet the Millennium Development Goals, a better understanding of the relationship between mobility and health becomes a priority.

Transport in rural areas is generally characterized by low population density, low level of economic activities and traffic; long distances between nodal points, such as service centres; high unit costs for service delivery, operations, maintenance, and often difficult geographic and weather conditions. The relative importance of transport factors within economic development policies increases as remoteness grows. Remote

areas also generally have more under-used economic resources and marginal economic activities and reorganization of economic activities in favor of remote areas could result in positive distributional benefits of economic activity.

The physical condition of various rural-urban roads used in the transportation of agricultural produce in the study area is of great concern, coupled with the deplorable condition of the roads in the area. Vehicle used to transport agricultural produce along the routes linking the rural areas are rickety and unsuitable for such purpose. The major farm settlement in the area are geographically dispersed, there is need to link this settlement with the consumption center through an efficient rural-urban transport services that will bridge the gap between activity site and consumers of the agricultural produce. An urgent need to improve the rural-urban means of conveying agricultural produce from various producing centers to urban area to reduce poverty and hunger in the country and to meet the Millennium Development Goals [2].

Aim and Objectives of the Study

The aim of this study is to examine Rural-urban transportation of agricultural produce in Ijebu North Local Government Area of Ogun state. To achieve this aim, the following are the specific objectives:

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- i. To identify the nature of agricultural produce and means of their transportation.
- ii. To examine the type and nature of roads in the study area.
- iii. To examine the key challenges facing the transport operators in the study area.
- iv. To examine the impact of transportation system on agricultural produce.

Research questions

- i. What are the nature of agricultural produce and means of their transportation?
- ii. What is the present state of transportation system in the study area?
- iii. How does Rural-urban transportation systems affect the movement of agricultural produce?
- iv. What are the key challenges facing the transport operators in the study area?
- v. What measures could improve the rural-urban transportation of agricultural produce?

Literature Review

The word “rural” connotes different meanings to different people depending on their background. What is regarded in developing countries as rural may be regarded as urban in developed countries. However, given certain criteria, rural settlements in Nigeria for instance are regarded as settlements with less than 20,000 people and whose population predominantly engages in primary production [3]. Rural settlements were also described by Weir and McCabe [4], as areas with relatively low development densities, typically less than 1 resident per acre.

Planning is concerned with the objectives and rational view of future conditions, assessing society desires, estimating the degree of control required, forecasting the amount of change and formulating policies to take account of this change and control [5]. The nature and role of regional planning in Nigeria springs from the criticism that Federal and State Government administration is too parochial, the need emerges for national intermediary at the regional scale to provide a meeting place for national economic planning. “The concept of regional planning is thus largely based upon national economic planning and the need to translate this into physical context, define the problem and facilitate the implementation of the solution”.

The provision of infrastructure as an approach to rural development is one of the methods mostly used by developing countries of the world. The theoretical proposition of infrastructural approach to rural development be it physical, social or institutional infrastructure, is predicated on a modernization theory called the “trickle-down theory of development” [6]. According to him, this theory is a general economic development model postulated by an American economist Hirschman in 1958. This theory is of the opinion that growth is supposed to trickle down from the core to the periphery to ensure a balanced development without an area being worse-off either rural or urban. In his submission stated that “growth does not appear everywhere at the same time; it manifests itself in points or poles of growth with variable intensities; it spreads by different channels and with variable terminal effects for the economy as a whole”. Hence, Obateru [7] recognized a growth pole to be

a point which centripetal forces are attracted and from which (in time) centrifugal forces emanates throughout the field of influence of the set of activities constituting the pole. Many regional planning scholars in regional development issues have applied this growth pole concept because the concept has a fundamental importance to contemporary regional planning and constitutes a significant percentage of regional planning activities. According to Okafor et al. [8] one of the main advantages of this model as a tool of spatial analysis and planning of rural development relates to its total coverage of the national space economy thus embracing both urban and rural development and actually seeing this in an integrated way. Ayeni opines that growth pole as a system of spatial development within the space economy of any country will prevent parasitic development.

A major de-facto market force and the distribution of assets is transportation. Also, growth poles (growth points) which aim at forcing economic activity on particular point within a region which would have a latent potential for exceptional growth can be stimulated by the introduction of particular road system. This would release the latent growth potential and produce beneficial multiplier effect throughout the region; many rural areas are bridge areas between states or metropolitan centers. Rural transportation is essential not only for connecting people to jobs, health care and family in the ways that enhances their quality of life, but also for contributing to regional economic growth and development by connecting business to customers, goods to markets and tourists to destinations. Commodities including timber, fuel and agriculture product must be moved from rural areas where they are produced to urban areas where they are processed, consumed, or sent out of the state or country. Rural road network has significant effect on the distribution of facilities in rural areas and has the potential of reducing poverty. Transport is life; it nurtures life and keeps life going. Transport plays a significant role in the efficient running of modern societies. It is also the engine of growth and development of societies [9]. The world that we live in now will most likely be impossible had it not been for innovations in transportation. There would not have been any great infrastructure, industrialization, or massive production, if transportation were incompetent. Life would not have kept up with the fast changing times if there were no huge trucks, bulldozers, trailers, cargo ships, or large aircrafts to carry them to different places. In other words, the global society would not have experienced comfort and convenience had it not been for advancements in the transportation sector (Figure 1).

In his contribution, Ademiluyi [10] observes that throughout the globe, transport is basic and requirement of daily human activities. Today, humanity has technology to thank for all the wonderful things that it currently enjoys now. Transport makes possible movement of goods from one place to another with great ease and speed. Thus, consumers spread in different parts of the country have the benefit of consuming goods produced at distant places Transport provides employment opportunity to individuals as drivers, conductors, pilots, cabin crew, captain of the ship, etc. who are directly engaged in transport business. It also provides employment to people indirectly in the industries producing various means of transport and other transport equipment's.

Nigeria vision 20:2020 document observed that an efficient transport network will allow manufacturers or producers to obtain raw material or supply national or international market at minimum cost and with minimum delay, and allow them to access the widest possible number of suppliers or workers. To be most effective, it will allocate the economic cost of providing and maintaining the underlying



Figure 2: Pick-up van for Transporting Agricultural Produce in the Study Area.



Figure 3: Type of packaging used for Agricultural Produce in Study Area.

is very ironical that many rural communities in Nigeria still lack good road and consequently find it difficult to transport their goods.

Rural transportation system

Poor accessibility in the rural areas of developing countries perpetuates the deprivation trap by denying communities access to their most basic needs. Accessibility depends on mobility (ease and frequency of movement) and proximity (distance). Access may improve by greater mobility and improved proximity to services (piped water, local health center).

The basic means of transport is human transport, people walking between locations and carrying things themselves. Walking and carrying are simple, cheap and efficient for short distance, difficult terrain and small loads. It is the other end of the spectrum are large-scale means of transport including truck, buses, automobiles, train, airplanes and ship, these are generally designed for moving people and goods quickly over long distance with large loads. Rural transport depends on appropriate infrastructure (path, road, waterways, bridges, railway track and their associated maintenance and traffic management system). The infrastructures include path, trail, track, access or feeder roads, secondary roads and primary truck roads. These may vary in quality, depending on weather, season, construction and maintenance

and some means of transport require certain infrastructure standards to operate effectively.

The relationship between urban and rural areas is changing in countries all over the world for economic and social activities while also promoting access to basic facilities. Improved rural transportation reduces travel time thereby, increasing the time available. Motorized public and private rural transport services concentrate on routes from villages to market towns and from towns to cities where there is a greater demand and better infrastructure.

Improving rural people's access to essential service requires improving mobility through better transport infrastructure and services and attention to the location, quality and price of facilities. Importance of rural transport are enormous, they accelerate the delivery of farm input and the services of extension workers, preventing excessive rural to urban migration with the attendant problems, facilitate the evacuation and marketing of produce from agriculture, ease of human movement within and outside the community, thereby reducing or eliminating repetitive movement and there increase in residual time for other activities, enhance the effectiveness of policy, reduce the level of wastage of agricultural produce which bring about reduction in prices, accelerate the delivery of basic needs to the rural majority, mobilizing the vest natural and human resource potential of rural sector, help the local population regain their lost ability of self-reliance especially in the area of food production. Despite all these, it is very ironical that many rural communities in Nigeria still lack good road and consequently find it difficult to transport their goods.

Filani [11] "one of the major prerequisites of efficient functioning of an area is the facility for the movement of people, goods and services quickly and economically". The evolution of rural transportation in Nigeria has spatial and temporal dimensions.

Adesanya et al. had observed that, rural travel and transport in most rural areas in Nigeria still take place with great difficulties thereby compounding and worsening the problem of rural productivity and rural poverty. The ability of agricultural and forest freight to absorb motorized transport cost varies according to the purpose and type of agricultural production. Because of the foregoing reasons, head portage moves substantial part of the country's rural agricultural commodities. Bicycles, hand drawn/push carts, pick-up van and adapted vehicles (Bolekaja and Mammy Wagons) are the dominant modes of public transport in the rural areas [12].

The word "rural" connotes different meanings to different people depending on their background. What is regarded in developing countries as rural may be regarded as urban in developing countries [13,14].

Research Methodology

This study applies a quantitative method based on a structured self-administered questionnaire in order to assess the conceptual model and test the hypotheses. It gives a detailed insight into the view and responses of farmers produce traders and produce transporters in relation to production, evacuation, trading, and transportation of agricultural produce. A total of 378 questionnaires were randomly and purposive distributed in Ijebu North local government Area, 113 was distributed to farmers, 170 was distributed to produce traders and 95 was distributed transporters. The data collected from the questionnaire are distributed and analyzed in the tables below.

Analysis of responses

Socio-economic characteristics of the farmers: Analysis of the

survey carried out showed that sex distribution of the farmers revealed that 83 of the farmers representing 73.5% are male and 30 of the farmers representing 26.5% are females. The studies revealed that majority of the farmers are male as shown in Table 1.

Age of the farmers: The field survey revealed that 4 of the farmers representing 3.5% are below 20 years of age, 3 of the farmers representing 2.7% are between the ages of 20 to 25 years, 2 of the farmers representing 1.8% are between the ages of 26 and 30 years, 23 of the farmers representing 20.4% are between the ages of 31 to 35 years. Seven of the farmers representing (6.2%) are between the ages 36-40 years while 74 of the farmers representing 65.5%. are above 40 years of age. The studies revealed that majority of the farmers are above 40 years with a percentage of 65.5% as shown in Table 2.

However, it can be deduced that few teenager below the age of 20 years with percentage of 3.5% of are engage in farming activities while majority of the farmers are above 40 years with a percentage of 65.5%.

Table 3 shows that 5 of the farmers representing 4.4% earned below N5,000, 5 representing 4.4% N5 001-N10,000, 41 (36.3%) of the farmers earned between N10,001 and N20,000, 19 of the farmers representing 16.8% earned between N20,001 and N30,000 while 43 (38.1%) earned above N30,000. The study revealed that majority of the farmers earned between N30,000 (38.1%) which is slightly above those who earned between N10,001-N20,000 (36.3%). This is shown in Table 3.

Level of education: The field survey revealed that 31 of the farmers representing 27.4% have no education, 44 of the farmers representing 38.9% have primary education, 10 of the farmers representing 8.8% educate up to secondary level, 3 of the farmers representing 2.7% have technical or grade II teacher training certificate, 9 of the farmers

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	83	73.5	73.5	73.5
female	30	26.5	26.5	100
Total	113	100	100	

Source: Authors Field Work, 2016

Table 1: Sex distribution of farmers.

	Frequency	Percent	Valid Percent	Cumulative Percent
Below 20 yrs	4	3.5	3.5	3.5
Between 20-25 yrs	3	2.7	2.7	6.2
26-30 yrs	2	1.8	1.8	8
31-35 yrs	23	20.4	20.4	28.3
36-40 yrs	7	6.2	6.2	34.5
Above 40 yrs	74	65.5	65.5	100
Total	113	100	100	

Source: Authors Field Work, 2016

Table 2: Age distribution of farmers.

	Frequency	Percent	Valid Percent	Cumulative Percent
below N5,000	5	4.4	4.4	4.4
N5,001-N10,000	5	4.4	4.4	8.8
N10,001-N20,000	41	36.3	36.3	45.1
N20,001-N30,000	19	16.8	16.8	61.9
above N30,000	43	38.1	38.1	100
Total	113	100	100	

Source: Authors Field Work, 2016

Table 3: Estimated monthly income distribution of farmers.

representing (8.0%) have National diploma while 16 of the farmers representing 14.2%. are University graduate. The study revealed that majority of the farmers has primary education with percentage of 38.9% as shown in Table 4.

However, it can be deduced that few teenager below the age of 20 years with percentage of 3.5% of are engage in farming activities while majority of the farmers are above 40 years with a percentage of 65.5%.

Experience of the farmers: The result of the field survey shown that 52 of the respondents representing 46.0% has less than 10 years experience in farming, 45 of the respondents representing 39.8% has year of experience in farming between 11-20 years, 15 of the respondents representing 13.3 has 21-30 years of experience while 1 (9%) respondents has more than 30 years of experience. We can deduce that majority farmers has less than 10 years of experience with a percentage of 46.0%, closely follow by farmers with the 11-20 years of experience as shown in Table 5.

Type of vehicle for transporting produce: It is observed that the use of pick-up van accounted for 41.2%, the use of car accounted for 30.0%, the use of motorcycle accounted for 16.5%, the use of bus accounted for 11.2% while other means accounted for 1.2%. We can deduce that most of the produce traders make use of pick-up van transport there to market with a percentage of 41.2% as shown Table 6, Figures 2 and 3.

Assessment of road condition: Analysis shown that 4 (4.2%) transporters operators revealed that the state of the road are good, 9 (9.8%) transporters operators revealed that the state of the road are fair,

	Frequency	Percent	Valid Percent	Cumulative Percent
no education	31	27.4	27.4	27.4
primary school	44	38.9	38.9	66.4
WASC	10	8.8	8.8	75.2
Technical/TC.II	3	2.7	2.7	77.9
NCE/ND/HD/NNND	9	8	8	85.8
university graduate	16	14.2	14.2	100
Total	113	100	100	

Source: Authors Field Work, 2016

Table 4: Level of education.

	Frequency	Percent	Valid Percent	Cumulative Percent
less than 10 yrs	52	46	46	46
11-20	45	39.8	39.8	85.8
21-30	15	13.3	13.3	99.1
31 yrs and above	1	0.9	0.9	100
Total	113	100	100	

Source: Authors Field Work, 2016

Table 5: Experience of the farmers.

	Frequency	Percent	Valid Percent	Cumulative Percent
pick up van	70	41.2	41.2	41.2
Car	51	30	30	71.2
Motorcycle	28	16.5	16.5	87.6
Bus	19	11.2	11.2	98.8
Others	2	1.2	1.2	100
Total	170	100	100	

Source: Authors Field Work, 2016

Table 6: Type of vehicle for transporting produce.

	Frequency	Percent	Valid Percent	Cumulative Percent
Good	4	4.2	4.2	4.2
Fair	9	9.5	9.5	13.7
Poor	34	35.8	35.8	49.5
very bad	48	50.5	50.5	100
Total	95	100	100	

Source: Authors Field Work, 2016

Table 7: Assessment of road condition.

34 (35.8%) transporters operators revealed that the state of the road are poor while 48 (50.5%) transporters operators revealed that the state of the road are very bad. More than of the respondents agree that the state of the road in the study area is very bad 50.5% as shown in Table 7.

Conclusion

Inaccessibility to transport can make it difficult for movement of agricultural produce, while the importance of rural transport to agriculture includes accelerate the delivery of farm input and the service of extension workers, it facilitate the evacuation and marketing of agricultural produce, reduce the level of wastage of agricultural produce and it bring about reduction in prices, and finally accelerate the delivery of basic needs of the majority.

This research work analyzed the transportation on agricultural produce in Ijebu North local government of Ogun State towards improving the movement of agricultural produce to urban centers for consumption. In this study, the importance of good rural-urban roads and suitable means of transporting agricultural produce to encourage productivity and enhancing profitable prices and minimizing cost of transportation were find out. Agricultural produce like food crop, vegetable, tubers, fruits and poultry products are in commercial quantity in the study area, while farming and produce trading occur throughout the year, the transportation of agricultural produce in the study area being agricultural base local government with many villages and the location of the farm settlement in the remote part of the area is characterized by the deplorable condition of roads which are mainly local rural-urban roads.

Finally, potential investment in rural-urban transportation is a vital tool towards rural and economy development of the study area as well as reducing poverty.

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