

EFFECTS OF RURAL INFRASTRUCTURE ON MARKETING LIVESTOCK PRODUCTS IN IBARAPA NORTH LOCAL GOVERNMENT, OYO STATE, NIGERIA

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ABSTRACT

*In many communities in Nigeria, inadequate and low quality infrastructure has been known to have serious implications for welfare and the persistence of poverty. This work was majorly carried out by oral interview and survey involving administration of questionnaires designed to gather relevant information on effect of rural infrastructure in poultry production in Ibarapa North Local Government, Oyo State, Nigeria. The population comprises poultry farmers in Ibarapa North Local Government. The main instrument used for the survey was the questionnaire designed to gather the required information from respective poultry farmers. The source of data used for this study is primary data through the use of an interview schedule with a well design structured questionnaire to administer to the respondent. Majority 53.5 % of the respondents in the study area work in the civil service as their source of income, while the majority (79.90 %) of the respondents in the study area have less than six (< 6) years of farming experience, 16.10 % of the respondents fell within 6-10 years of farming experience. Almost all the respondents (100.00 %) responded that the rural infrastructure in the study area have effect on the livestock production which can either be of positive or negative effect, the result showed that there is a significant relationship between the selected socio economic characteristics of the respondents and the effects of rural infrastructure on livestock production in the study area. From the result of the research, it is shown that there was a significant relationship between the selected socio economic characteristics of the respondents (number of stock r-value = 0.264**, p-value = 0.008) and the effects of rural infrastructure on livestock production in the study area.*

Keywords: Livestock; Infrastructural facilities; Road; Water, Health centers.

Introduction

In many communities in Nigeria, inadequate and low quality infrastructure has been known to have serious implications for welfare and the persistence of poverty. Rural infrastructural development in Nigeria has been long neglected. Yet, investment in health, education and water supply has largely been focused on in the cities. Consequently, the rural population where the largest sources of agricultural products come from have limited access to services such as schools, health centers and portable drinking water. Insensitivity of the government to provide basic infrastructure may have informed the stress on the available ones of which maintenance is quite irregular, leading to eventual breakdown in time, low productivity and poverty in the country. Ekong (2000) defined rural infrastructure as those basic physical, social and institutional forms of capital which enhance rural dwellers' production, distribution and consumption activities and ultimately the quality of life. These infrastructure include transportation, storage facilities, power supply, water supply, health

facilities and other community services. They are facilities put in place to enhance the standard of living of the rural farmers. Ajayi and Amechi (2005) have demonstrated the positive impact of rural infrastructures on the socioeconomic lives of the rural farmers. They reported that rural farmers need usable road networks for timely and efficient transportation of their inputs to the farm as well as the transportation of their farm produces out of the farm. Also, an effective health centre will provide sound health care for the farm-family while an operational communication facility ensures quick and easy contact within and outside the community.

Okuneye (2000) summarized the poor state of rural infrastructure in Nigeria as:

1. Poor feeder roads and inadequate road networks between the rural areas where agricultural production takes place and the urban areas
2. Inappropriate on farm and off-farm storage facilities

3. Poor irrigation facilities
4. Lack of functional health centers in the rural areas, leading to loss of lives due to ill-health which could have been easily treated
5. Existence of few schools (primary and secondary) in the rural areas leading to the migration of youths to urban areas.

According to FAO (2005) rural infrastructures plays a crucial role in poverty reduction, economic growth and empowerment for the poor rural African. The effort by the Government to increase productivity of farmers has not been effective, and this has adversely affected the level of agricultural production and the socio-economic life of the rural farmers because the improvement of these infrastructures is not catered for in the area of study. Rural infrastructure such as roads, irrigation, transportation, primary market and weather forecasting services can decrease production and transportation cost, storage expenses, dealing cost and operation risk and enhance efficiency. Deficient infrastructures have great negative implications on present state of agriculture.

Worldwide consumption of poultry produced over the years could increase if there were effective marketing strategies in place with respect to production and sales, the industry could continue to attract a lot more investments. The benefits which the nation derives from the poultry industry cannot be underestimated. It provides employment, source of income and foreign exchange, which in turn contributes to the country's Gross Domestic Product (GDP). It provides food security and protein sufficiency for the poor countries (Lathan, 1997).

Poultry as a marketable Product

According to Lawless (1991), before a poultry marketing strategy can be developed, it is well to understand and list the characteristics of the product. Poultry consumption offends no religious sentiments. Its production is dependent on a wide variety of inputs such as chick hatcheries, feed producers, veterinary services, processing facilities, transport and efficient cold chain. It must also be underscored that:-

1. Its production and consumption is generally non-seasonal,
2. It is a perishable product which most usually needs refrigeration and considerable post-harvest care,
3. It may be sold whole or in a wide variety of different parts and that different value can be placed on each part,
4. It is eaten as a central part of the meal.

Poultry Marketing

Put simply, marketing is finding out what customers and consumers want and supplying it at a profit.

The process is customer oriented. The customer will not buy an unwanted product.

The product must be provided at a profit. Profit provides the incentive to continue with the business. The potential for increased profits offers the main incentive to develop and supply a variety of products to tempt the customers.

Activities involve in marketing include the collection, evaluation and dissemination of marketing information; planning and scheduling of production; establishing contracts between buyers and sellers; constant improvement of all post-harvest activities; and co-ordinating inputs, including transport, processing, storage, credit, health care etc.

Rural Infrastructure

(PCUNFDO, 2005; Ahmed and Donovan, 1992). Rural infrastructure is defined to include those underlying or basic physical, social and institutional forms of capital which enhance rural dwellers production, distribution and consumption activities and ultimately the quality of their life (Ekong, 1988, Idachaba, 1978). Rural infrastructure is crucial for agriculture, agro-industries and overall economic development of rural areas.

According to Fakayode *et al.* (2008) poor access to infrastructural facilities like good roads, health centers, educational facilities or institutions, communication gadgets and water supply all lead to a low agricultural production. Lack of good feeder roads directly influences the degree of rural poverty by limiting the scope of agricultural production, sale and keeping members of the rural communities relatively isolated. Rural physical infrastructure among which are transportation facilities (federal, state and L.G.A roads, railways, bridges, ferry services, canal ports and foot paths) constitute, perhaps, the most important infrastructure in the structural transformation of Nigerian agriculture.

Statement of the Problem

In every business enterprise, it is always said that the production is not ended until the goods have reached the final consumer. This clearly underscores the fact that merely producing poultry birds and the other products is simply not enough because marketing is needed to make the cycle complete. Marketing here simply means finding out what customers want and supplying it effectively at a profit.

Marketing of eggs, for example, becomes a problem when transporting them from one town to another in

vehicles. Breakages as well as cracks appear on the eggs as a result of driving errors on rough roads. If this happens, consumers and customers will refuse to buy the product. This is a marketing problem which Ibarapa North Local Government Authorities should address. Ibarapa North has taken consumers and marketing of poultry products for granted simply because it is one of the market leaders in Oyo State. The problem is, without taking marketing and marketing research seriously, it is doubtful if Ibarapa North can continue to maintain its market share and be a market leader in Oyo State.

Objectives of the Study

The general objective of the study is to determine the socio-economic characteristics of the respondents

The specific objectives are

1. to identify the availability and functionality of infrastructure/amenities in the study area
2. to determine the farmers perception on the effect of these infrastructural facilities in their production

Research Questions

It is important to know the available infrastructure in the area so that more recommendations can be made to enhance farming operations. It is against this background that the study will provide the answers to the following questions:

1. What are the existing rural infrastructure in the study area?
2. What is the current state of existing rural infrastructure?
3. Which rural infrastructure has the highest effect on agricultural production?

Hypothesis of the study

H₀: There is no significant relationship between the socio-economic characteristics of the poultry farmers and their perception of rural infrastructure in relation to poultry production

Scope of the Research

The research does not cover everything about the poultry industry. It focuses mainly on marketing of poultry and poultry products especially the challenges associated with marketing of the products to customers and consumers.

Since the emphasis is on the marketing of the products, the study will examine the relevance of marketing in the poultry industry and in particular it will identify what goes into product quality as well as how to meet consumer and customer needs and wants in the product. It will identify the marketing

challenges and constraints, how to make the industry profitable and how to ensure that it contributes its fair share to the country's GDP and the economy as a whole.

METHODOLOGY

Findings were majorly carried out through oral interviews and survey involving questionnaires administration designed to gather relevant information from rural infrastructure in poultry production in Ibarapa North Local Government.

Study area

The study will be conducted in Ibarapa North Local Government, in Oyo State, Nigeria. The area is the heterogeneous population by many tribes of Nigeria and other communities from Oyo State. The major reason for selecting this location for the research is the equivalent spacing among respondents which favour even distribution of questionnaires. 120 poultry farmers was randomly selected the 10 wards that made up the local government.

Results and discussion

The results and discussions of the research was based on the study objectives and hypotheses. It comprises of two sections. The first section presents the results based on the proposed study objectives while the second section deals with findings arising from the hypotheses of this study.

Socio economic characteristics of the respondents

The result of the data collected during the study was discussed here. This includes the social economic characteristics of the respondent, e.g. age, sex, years of farming, land ownership etc.

Age: Information in Table 1.0 shows that 14.00 % of the respondents were between the ages 25-35, 22.10 % were between the age of 36-45, 20.00 % were between the age of 46-55, 37.30 % were between the age of 56-65, while the remaining percentage (6.00 %) were between the age 0f 66 and above with a mean age of 50.51 years and standard. This result implies that the majority of the respondents (37.30 %) falls between the ages of 56 – 65. This indicates that these respondents are in the productive age stage.

Sex: Results in Table 1.0 shows that slight above average (71.7%) of the respondents were male in the study area, the remaining percentage 28.30 % were female. This implies that male population in the study are more that of the female.

Marital status: Result in Table 1.0 indicates that most of the respondents (63.60 %) were married, 14.10 % were single, 4.00 % were divorced, and 10.10 % were

widowed while the remaining percentage (8.10 %) was polygamous. This result denotes that larger percentages of the respondents in the study area were married and that the respondent in the study area could be described as responsible.

Educational Level: Table 1.0, shows that 10.10 % of the respondents have primary education, 24.20 % have Secondary education, 59.60 % of the respondents have tertiary education and 6.10 % have no formal educational while none of the respondents in the study area have adult education. This result implies that almost all the respondents in the study area have formal education and larger percentage of the respondent's tertiary education.

Livestock type: table 1.0 shows different types of livestock farming in which the respondents to the study area can belong, from the table 33.30 % of the respondents have poultry farm as their livestock farm, 16.20 % have piggy farm, 6.10 % have rabbit farm, 12.10 % have snail farm, 30.30% have cattle, sheep and goat farms while the remaining percentage (2.00 %) have grass cutter farms. From the result, majority of the respondents in the study area have poultry farm.

Source of income: Table 1.0 shows the source of income of the respondents in the study area. It could be observed from the table that most of the respondents in the study area have different sources of income. Majority, 53.5 % of the respondents in the study area have civil service to be their source of income, 28.30 % have crop farming as their source of income, 6.10 % have artisans as their source of income and 6.10 % have trading as their source of income while the remaining percentage 6.10 % of the respondents have other sources of income. From the research it can be seen that majority of the respondents in the study area are civil servants by having the civil service to be their source of income.

Farming experience: Table 1.0 shows the number of years in which the respondents have been involved in farming. From the table, we could see that the majority, (79.90 %) of the respondents in the study area have less than six (< 6) years of experience of farming, 16.10 % of the respondents fell within 6-10 years of farming experience, while just 4.00 % of the respondents have 11years and above of farming experience.

Monthly Income: The result in table 1.0 shows that 18.20 % of the respondents received between #1500 and #4000 as monthly income. Furthermore, 15.00 % of the respondents received between #5000 and #15,000, 54.60 % of the respondents received #16,000 – #30,000 and this is the largest percentage which shows that majority of the respondents in the study area receive this; while the remaining percentage

which is 12.10 % receive #31,000 and above as their monthly income. The mean income is #14923.23

Land Ownership: From table 1.0, majority of the respondents in the study area were land owners with about 41.40 % cultivating on land purchased. Also, 22.20 % of the respondents farm on gifted land, and 16.20 % of the respondents in the study area cultivate on inherited land while the remaining percentage of the respondents 20.20 % farmed on rented or leased land.

Table 1.0 : Socio-economic characteristics of the respondents in the study area **n=99**

Variable	Frequency	Percentage (%)	Mean
Age			50.51yrs
25-35	14	14.00	
36-45	22	22.10	
46-55	20	20.00	
56-65	37	37.30	
66 above	6	6.00	
Sex			
Male	71	71.70	
Female	28	28.3	
Marital Status			
Single	14	14.10	
Married	63	63.60	
Divorced	4	4.00	
Widowed	10	10.10	
Polygamy	8	8.10	
Religion			
Christian	53	53.50	
Muslim	42	42.40	
Traditional	4	4.00	
Educational Level			
Primary	10	10.10	
Secondary	24	24.20	
Tertiary	59	59.60	
Adult Education	0	0.00	
No Formal Education	6	6.10	
Livestock type			
Poultry	33	33.30	
Piggery	16	16.20	
Rabbit	6	6.10	
Snail	12	12.10	
Cattle, sheep and goat	30	30.30	
Grass cutter	2	2.00	
Source of income			
Crop farming	28	28.30	
Civil service	53	53.50	
Artisan	6	6.10	
Trading	6	6.10	
Others	6	6.10	
Farming Experience			
< 6	79	79.90	
6-10	16	16.10	
11 above	4	4.00	
Average Income			#14923.23
< 5000	18	18.20	
5000-15000	54	54.60	
16000-30000	15	15.00	
31000 above	12	12.10	
Land ownership			
Gift	22	22.20	
Inheritance	16	16.20	
Rent/lease	20	20.20	
Purchase	41	41.40	

Source: Field survey, 2022

Availability and functionality of infrastructure/social amenities in the study area

Table 2.0 shows the availability of and functionality of the infrastructure/social amenities in the study area. From the table, different amenities are shown and the functionality was asked from the respondents. The infrastructure/social amenities available in the study area include: road, water, markets, health centers, veterinary centers, financial institutions, electricity, sanitation and the school. From the research in table 2.0, majority (60.00 %) of the respondents say the roads available in their area are tarred, motorable and functioning, also 80.00 % says the road available in their area is untarred, motorable and the roads are functioning. Also, 0 % of the respondents say the water available and functioning in their area is the public water pipe, while 99 % responded that the public water pipe is neither available in their area nor functioning, some says the water type in their area is bore hole, 83.80 % respond the bore hole is available and functioning while 16.20 % of the respondents admitted that the bore hole is neither available in their

area nor functioning, some of the respondents respond that the water available and functioning in their area is deep well some stream while some says its neither available nor functioning. Some of the respondents in the study area says the social amenities present in their area is market and the market type is community market 100.00% of the respondents say the community market is available and functioning, some (89.90 %) respond that the market type is neighborhood market while other (10.10 %) says the community market neither available nor functioning, other market type in the area is Government market. Also in the study area was the health centers. These include general hospital, maternity center, traditional health center and private hospital; almost all the respondents (100.00 %) admitted that the health centers are available and functioning. In the study area was still veterinary center (government veterinary and private veterinary center and the school (primary, secondary, etc) where all the respondents in the study area confirmed that all the named amenities were available and functioning in their area.

Table 2.0: Availability and functionality of infrastructure/social amenities in the study area

Infrastructure		Available (%)	Not Available (%)	Functioning (%)	Not functioning (%)
Road	Tarred & motorable	60(100)		99(100)	
	Untarred & motorable	80(100)		99(100)	
	Untarred & not motorable		99(100)		99(100)
Water	Public water	0.00	99(100)	0.00	99(100)
	Borehole	99(100)		99(100)	
	Deep well	99(100)		99(100)	
	Stream	99(100)		97(98.00)	2(2.00)
	Community market	99(100)		99(100)	
Market	Neighbourhood market	89(89.90)	10(10.10)	89(89.90)	10(10.10)
	Government market	2(2.00)	97(98.00)	12(12.10)	87(87.90)
	General Hospital	99(100)		99(100)	
Health center	Maternity center	99(100)		99(100)	
	Traditional health center	99(100)		99(100)	
	Private hospital	99(100)		99(100)	
	Government	99(100)		99(100)	
Veterinary center	Private		99(100)		99(100)
	Bank of agriculture	99(100)		99(100)	
Financial institution	Micro finance bank	99(100)		99(100)	
	Cooperative society	99(100)		99(100)	
	Thrift collector	99(100)		99(100)	
	Commercial bank	99(100)		99(100)	
	PHCN	99(100)		99(100)	
Electricity	Generator	99(100)		99(100)	
	Government	99(100)		99(100)	
Sanitation	Drainage system		99(100)		99(100)
	Un-authorized		99(100)		99(100)
	Primary	99(100)		99(100)	
School	Secondary	99(100)		99(100)	
	Tertiary	99(100)		99(100)	
	Entrepreneur/training center	99(100)		99(100)	

Source: Field survey, 2022

Farmers' perception on the effect of these infrastructural facilities on their production

From the result in table 3.0, the entire rural infrastructures in the study area have effect on the livestock production which can either be positive or negative.

Table 3.0: Farmers' perception on the effect of these infrastructure facilities on their production

Effect of rural infrastructure on livestock production	Frequency	Percentage
Low effect		
12-35	-	-
High effect		
36-60	99	100 %

Source: Field survey, 2022

Minimum score = 12

Maximum score = 60

Mean infrastructure effect = 36

Test of hypothesis

Chi-square test showing the relationship between the selected socio-economic characteristics of the respondents and the effects of rural infrastructure on livestock production

From table 4.0, the result showed that there is a significant relationship between the selected socio economic characteristics of the respondents and the effects of rural infrastructure on livestock production in the study area.

Table 4.0: Chi-square test showing the relationship between the selected socio-economic characteristics of the respondents and the effects of rural infrastructure on livestock production

Variable	X ²	df	p-value	Remarks
Sex	72.364	2	0.000	S
Marital status	120.444	4	0.000	S
Religion	40.001	2	0.000	S
Educational status	70.414	3	0.000	S
Stock type	48.212	5	0.000	S
Land owner	14.980	3	0.000	S

Source: Field survey, 2022

P ≤ 0.05

S = Significant

PPMC test showing the relationship between the selected socio-economic characteristics of the respondents and the effects of rural infrastructure on livestock production

From the result it is shown that there was a significant relationship between the selected socio economic characteristics of the respondents (number of stock r-value = 0.264**, p-value = 0.008 and the effects of rural infrastructure on livestock production in the study area.

Table 4.1: PPMC test showing the relationship between the selected socio-economic characteristics of the respondents and the effects of rural infrastructure on livestock production

Variable	r-value	p-value	remarks
Age	0.105	0.303	NS
Number of stock	0.264**	0.008	S
Farming experience	-0.018	0.860	NS
Monthly income	0.005	0.963	NS

Source: Field survey, 2022

P ≤ 0.05

NS = Not significant

S = Significant

Summary, conclusion and recommendation

Summary

In many communities in Nigeria, inadequate and low quality infrastructure has been known to have serious

implications for welfare and the persistence of poverty. This work was majorly by oral interview and survey involving questionnaires designed to gather relevant information from the rural infrastructure in

poultry production in Ibarapa North Local Government, Oyo State, Nigeria. The population comprises poultry farmers in Ibarapa North Local Government. The main instrument used for the survey was the questionnaire designed to gather the required information from respective poultry farmers. The source of data use for this study is primary data, this involved the use of an interview schedule with a well design structure questionnaire to administer to the respondent. From the result of the research, it is shown that there was a significant relationship between the selected socio economic characteristics of the respondents (number of stock r-value = 0.264**, p-value = 0.008) and the effects of rural infrastructure on livestock production in the study area.

Conclusion

Based on the findings, the authors concluded that:

- Majority of the respondents in the study area were male, married, Christian and have tertiary education
- Majority of the respondents have their house size to be less than six, civil servants and have land for farming
- The entire rural infrastructures in the study area have effect on the livestock production which can either be positive or negative effect, the result showed that there is significant relationship between the selected socio economic characteristics of the respondents and the effects of rural infrastructure on livestock production in the study area.

Recommendations

Government should provide more infrastructural facilities for the study area to ease livestock production

People living in the study area should use the available facilities very well for it to last long

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