INVESTIGATION OF RURAL WOMEN ACCESSIBILITY TO INFRASTRUCTURAL FACILITIES AND UTILIZATION OF POVERTY ALLEVIATION STRATEGIES IN KOGI STATE, NIGERIA

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ABSTRACT
A study was conducted to investigate into accessibility of rural women to infrastructural facilities and utilization of poverty alleviation strategies in Kogi State, Nigeria. A stratified random sampling technique was employed to select three hundred and sixty (360) rural women for the study. The result showed that the respondents did not have access to infrastructural facilities in the following areas. Rural physical facilities namely: transportation (89.4%); adequate storage facilities (68.1%); processing facilities (100%). Rural social infrastructural facilities: Health care (89.7%); primary schools (91.7%); secondary schools (88.6%). Rural utilities: Electricity (90.3%) and good water supply (91.4%). Institutional facilities include cooperative societies (71.9%); women groups (84.4%) and market for good produced (90.3%). The correlation coefficient analysis for relationship between rural women access to infrastructural facilities and their use of poverty alleviation strategies for the null hypothesis was accepted for variables like transportation (r = 0.143), storage facilities (r = 0.115), processing facilities (r = 0.004), heath care facilities (r = 0.166), primary schools (r = 0.095), secondary school (r = 0.004), electricity (r = 0.296), good water supply (r = 0.198), women groups (r = 0.432) and market for good produced (r = 0.301) while alternative hypothesis was rejected for cooperative societies (r = 0.599). Thus, there should be provision of good roads, marketing channels and reliable public means of transportation for easy disposal of farm produce to the market.
***Key words*:** Accessibility, rural women, Infrastructural facilities, Poverty Alleviation, Strategies

INTRODUCTION

In Nigeria, as most developing countries of the World, women perform greater role in the production, processing and marketing of agricultural produce than is generally acknowledged. They are responsible for a large proportion of human resources for economic activities in the rural areas (Kolawole, 2015). Despite this, observation shows that the old and traditional methods of performing these roles are still immensely being used, thus resulting to low agricultural productivity. Review of agricultural programmes however; show that the performance of agricultural and non-agricultural income generating activities of rural women in Kogi State has not been encouraging or stimulating (Ipinyomi, 2017). This is because of the dependence on the small scale rural women who adopt traditional methods in agricultural production.

Many evidences suggest that scale of poverty in developing countries continues to worsen despite investments in poverty Alleviation strategies (Jazairy, 2014). There has been an increase in awareness of the importance of poverty alleviation investment in Kogi State. In addition, rural women have been considered the targets of agricultural and non-agricultural income generating activities, which have the aim of persuading them to adopt new strategies introduced. Despite these, report shows that, it has not reflected in the adoption behavior of the rural women (Wanhali, 2013). It has been observed that rural women engaged in agricultural and non-agricultural income generating activities in Kogi State used traditional method of production. This resulted in low yields, low income and poor living conditions. The consequence of this is that women are by-passed in the development efforts with adverse effects on their families.

The need to provide satisfactory information on rural women and poverty alleviation used by rural women calls for the assessment of all their activities. The problem is that, rural women are made to use the formal means of poverty alleviation which have always been targets of various projects with inadequate information on the informal means of poverty alleviation. Lack of this crucial information results in the underutilization of their local potentials and their further marginalization in the development process. Therefore, there is need to find out the strategies being employed by the rural women to generate and sustain their families.

In order to improve agricultural production, efforts have been made to encourage rural women to adopt new strategies. Researchers like Olatunbosun *et al* (2014) have concluded that non-adoption of new strategies for accessibility to infrastructural facilities and utilization of poverty alleviation contributes to low productivity. This creates problems viz: inadequate food supply, inflation and poor living conditions confronting the populace. Such constraints underline the need to investigate into the accessibility of rural women to infrastructural facilities and their use of poverty alleviation strategies in Kogi State.

The issue of infrastructures has assumed increasing importance in Nigeria in view of the need for production of farm produce. Women's basic needs of food, water and shelter are well known. However, she needs facilities and information to ensure the availability of these basic needs at all times. These facilities and institutions that are referred to as basic rural infrastructure. In the absence of basic rural infrastructure, the rural women can hardly achieve any self-fulfillment in any endeavor (Streeten, 2016).

Rural infrastructure, according to Idachaba et al (2002) is defined to include the system of physical, human and institutional forms of capital which enable rural residents to better perform their production, processing and distribution activities better as well as improvement in the overall quality of life.

The most basic elements of rural infrastructure comprise rural roads, markets and rural water supply facilities. It also includes social infrastructure, most importantly rural health and education facilities. At somewhat higher level of development, it includes rural electrification, telecommunication facilities, and access to electronic mass media.

In the seventies, when integrated rural development was in vogue, these components were typically included in the rural development package. Rural infrastructure is a very loose concept however, sometimes conceived narrowly to include only roads and water supply and sometimes to include social infrastructure. Agriculture cannot develop in isolation from physical infrastructural development, rural health and education or even from sound urban development policy (World Bank, 2008). The most effective way to increase rural women's income and alleviate poverty is by increasing their productivity and rural infrastructure facilities.

The tasks which the rural women are expected to perform and the skills required to execute them vary. The African rural women like most women, must be able to get rid of malnutrition from their families and have the major responsibility of lifting their families through access to infrastructural facilities in which Kogi State is not an exception. Therefore, bearing in mind the immense roles which must be performed in order to raise the standard of living of their families, there is need to investigate into the accessibility of rural women to infrastructural facilities and their utilization of poverty alleviation strategies in Kogi State. Thus, the specific objectives of this study were meant to:

i. investigate into the accessibility of rural women to infrastructural facilities in Kogi State

ii. determine the relationship between the access of rural women to infrastructural facilities and their utilization of poverty alleviation strategies.

The null hypothesis (Ho) formulated and tested was that there is no significant relationship between the access of rural women to infrastructural facilities and their utilization of poverty alleviation strategies in Kogi State.

MATERIALS AND METHODS

Population and Sampling Selection Technique

The target population of the study comprised of rural women in Kogi State, Nigeria. Stratified random sampling technique was adopted for the study. The twenty-one (21) Local Government Areas (LGAs) in the state were stratified into three, that is, the Eastern, Central and Western zones. From these, two LGAs were randomly selected from each zone making six LGAs.

The LGAs selected were Bassa and Ankpa LGAs from the Eastern, Okene and Adavi LGAs from the central and Lokoja and Kogi LGAs from the western zones respectively.Twelve (12) settlements were selected from each of the LGAs and five (5) rural women were randomly selected as respondents from each rural settlement. In all, a total of three hundred and sixty (360) rural women were selected to participate in the study.

Sources and Instrument of Data Collection

The required information for this study was obtained from both primary and secondary sources. The primary data were obtained from interview with sampled rural women. Areas considered rural for this study were the settlements that had between 100 and 200 households. Instrument designed for data collection was the interview schedule. The questionnaire was developed, pre-tested and subjected to reliability and validity tests before being administered. The interview schedule was used to gather the required information needed on the variables to be tested. Secondary data were derived through textbooks, journals, monographs, internet and other related sources. Consultants and the use of official documents from Ministry of Women Affairs, among others, were also utilized.

Validity and Reliability of the Instrument

Content validity was carried out to ascertain that the instrument measured what it was intended to measure. A draft question was given to experts in the fields of Agricultural Extension, Rural Sociology, Agricultural Economics and Specialists in gender studies. Questions in the questionnaire were thus reviewed and the appropriate items were selected to represent the entire content of the study.

The instrument developed was subjected to pre-testing at Olowa in the Eastern Zone of the state, an area completely different from the area of study. The pre-testing was conducted using 35 respondents randomly selected. The pre-testing was to detect ambiguous statements or statements that were beyond the reasoning level of the respondents.

Reliability of the instrument on the other hand, was measured using test-retest method. Person correlation analysis was done. A computed r value of r = 0.82 was obtained. A reliability coefficient (r) of 0.82 was considered high enough to adjudge the instrument as reliable in obtaining the intended information.

Measurement of Variables

The dependent variable for the study was the use of poverty alleviation strategies. The variable was dichotomized into moderately poor and extreme poor rural women based on their scores on poverty alleviation strategies adopted.

The poverty grouping of the rural women was identified by assigning scores to the responses of the respondents which were grouped into four such as: very often (1), regularly (2), occasionally (3), and never (4). There were twelve (12) items under the variable. The least score was 12 while the highest score was 48. Scores ranging from 12 to 24 were regarded as moderately poor while scores between 25 and 48 or above were regarded as extreme poor.

Independent variables like infrastructural facilities such as public transportation, storage, processing, health care, education, cooperative societies and the like were measured by dividing them into three and scores assigned accordingly viz does not exist (1), exist and not functioning (2); and exist and functioning (3). Access to infrastructural facilities: Access was measured by listing the infrastructural facilities viz shelter, schools, pipe borne water, motorable roads, market and health services. The respondents were asked to pick the ones that existed in their areas and ones they had access to in their locality.

Data Analysis

Data collected were analysed using descriptive and inferential statistics. Descriptive statistics such as percentages and frequency distribution were used to organize, summarize and analyze data on infrastructural facilities. Pearson Product Moment Correlation (PPMC) was used to test hypothesis.

RESULTS AND DISCUSSION

This section is concerned with the constraint of lack of access of rural women to infrastructural facilities. The facilities considered for this study include rural physical infrastructures, rural social infrastructures, rural utilities and rural institutional infrastructures. Findings are shown in Table 1. Most of the respondents (89.4%) did not have access to reliable public transportation. The implication of this for rural women is that they will find it difficult to get their produce to the market on time, especially perishable produce. The findings showed that majority of the infrastructural facilities were not available to the respondents and where they were available could not be accessed.

The consequence of the above findings, as revealed by Akinwunmi and Olawoye (2008) is that rural residents migrate to towns to secure such services. Thus, encouraging rural-urban migration among the productive youths. Many children particularly when they are of secondary school age migrate to live with relatives in urban areas, thereby reducing the number of family labour available to farm household. The fact still remains that if the essential infrastructural facilities are provided and the rural women have access to them, this will eventually result in higher productivity by rural women.

TABLE 1: Distribution of Respondents By Access To Infrastructural Facilities (N = 360)

Variables	Do not have access		Have access to	
	Frequency	%	Frequency	%
RURAL PHYSICAL INFRASTRUCTURES				
a. Reliable public transportation	322	89.4	39	10.6
b. Adequate storage facilities (silo, cribs, open air facilities)	245	68.1	115	31.9
c. Processing facilities such as Cassava grater or palm fruit digester	360	100.0	-	-
RURAL SOCIAL INFRASTRUCTURES				
d. Healthcare facilities	323	89.7	37	10.3
e. Educational facilities				
i. Primary Schools	330	91.7	30	8.3
ii. Secondary Schools	319	88.6	41	11.4
RURAL UTILITIES				
i. Electricity	325	90.3	35	9.7
ii. Good Water Supply	329	91.4	31	8.6
RURAL INSTITUTIONAL INFRASTRUCTURES				
f. Cooperative Societies	259	71.9	101	28.1
g. Women Groups	304	84.4	56	15.6
h. Markets for goods produced	325	90.3	35	9.7

Source: Field Survey, 2020

The correlation coefficient between rural women access to infrastructural facilities and their utilization of poverty alleviation strategies are shown in Table 2. Reliable public transportation was found to be negatively correlated with poverty alleviation strategies (r = -0.143). Adequate storage facilities and processing facilities were also found to be negatively and non-significantly correlated with poverty alleviation strategies (r = -0.115) and (r = -0.004 respectively. Primary schools were found to have negative and non-significant correlation with poverty alleviation strategies (r = -0.095). These values are not significant at 0.05 level. Health care facilities were found to have positive and non-significant relationship with poverty alleviation strategies (r = 0.166). Secondary schools had positive and non-significant relationship with poverty alleviation strategies (r = 0.028). Electricity was found to have negative but significant correlation with poverty alleviation strategies (r = -0.296) at 5% level. Good water supply was found to have positive and significant correlation with poverty alleviation strategies (r = 0.198). Cooperative societies were found to be positively and highly significant correlation with poverty alleviation strategies (r = 0.599).

Women groups were found to have positive and significant relationship with poverty alleviation strategies (r = 0.432). Markets for goods produced were found to be negatively and significantly correlated with poverty alleviation strategies (r = -0.301).

Therefore, the null hypothesis which states that there is no significant relationship between access of rural women to infrastructural facilities and their utilization of poverty alleviation strategies was accepted for: reliable public transportation, adequate storage facilities, processing facilities, health care facilities, primary schools, secondary schools, electricity, good water supply, women groups, and markets for goods produced; while alternative hypothesis is rejected for cooperative societies.

Reliable public transportation was found to be non-correlated with poverty alleviation strategies (r = -0.143). Adequate storage facilities were also found to be non-correlated with poverty alleviation strategies (r = -0.115). Processing facilities were found to have no correlation with poverty alleviation strategies (r = -0.004). Correlation Coefficient analysis further showed that health care facilities were found to have no relationship with poverty alleviation strategies (r = 0.166). Primary schools had no correlation with poverty alleviation strategies (r = -0.095). Secondary schools were found to have no correlation with poverty alleviation strategies (r = 0.028). These correlation values are not significant to poverty alleviation strategies. It implies that they have no contribution to poverty alleviation strategies in the study areas.

Electricity was negative, but significantly correlation corrected to poverty alleviation strategies (r = -0.296). This means that as the electricity increases, the strategies to be utilized decrease. Negative correlation might be due to lack of access of rural women to electricity in the rural areas. Low correlation implies no significant effect and has no impact on poverty alleviation strategies. This negative impact has effect on agricultural activities. Low electricity affects Processing and storage of farm produce which can be transported to the markets to yield income. These results disagree with the findings of Umoh (2012) that high rural electrification could lead to rapid development of rural economy and reduce poverty of the rural dwellers. That rural electrification in most cases is the life-wire of most other social amenities or infrastructures like healthcare facilities/institutions, pipe borne water supply etc. and it is therefore the underlying reasons for the migration of able bodied men and women from the rural to urban areas looking for unavailable office and factory jobs (Kamarch, 2015).

The result further revealed that good water supply had positive and significant correlation with poverty alleviation strategies (r = 0.198). The implication of this is that as good water supply increase, the strategies to be adopted also increase. This result is in conformity with that of Idachaba (2009) that convenient sources of safe water are of great significant to improve human health, agricultural labour productivity and hence, income generation.

Cooperative societies were found to have positive and significant high correlation with poverty alleviation strategies (r = 0.599). This result agrees with that of Kilimwiko (2013) who found that Women Cooperative Societies had positive and high relationship with poverty eradication strategies. This implies that as the cooperative societies increase, strategies to be utilized by the respondents to alleviate poverty also increase. That is, cooperative societies have direct effect on alleviation strategies. Cooperative societies assist women to embark on collective saving through credit and thrift societies which has afforded them the opportunity to save regularly for the purchase of farming equipment, seedlings and other farm inputs to increase agricultural productivity.

Women in multipurpose cooperative societies in the state engage in activities such as production, marketing of agricultural produce, credit mobilization and processing of produce to alleviate poverty. Women groups had positive and significant correlation with poverty alleviation strategies (r = 0.432). That is, as the women groups decrease, strategies to be adopted will also decrease. This implies that women groups have no effect on poverty alleviation strategies.

Markets for goods produced were found to be negatively but significantly correlated with poverty alleviation strategies (r = -0.301). The implication of this is that as markets for goods produced decrease, the strategies to be used for alleviation of poverty increase. Decrease in markets may affect the rural women in disposing their farm produce to the markets for sale especially perishable ones. Low access of rural women to market may discourage them to bring their produce to the market for income generation. These results disagreed with the finding of (Ayeni, 2012) who found that there was positive and high correlation between goods produced for marketability and rural women groups.

The inadequacy of these infrastructural facilities in the rural area really account for the relationships. The moderately poor and extreme poor rural women are living in the same area and they are faced with similar problems. Therefore, there is need to improve the conditions of rural women in terms of their access to infrastructural facilities.

CONCLUSION AND RECOMMENDATIONS

This study investigated rural women's accessibility to infrastructural facilities and utilization of poverty alleviation strategies in Kogi State, Nigeria. Nearly all the infrastructural facilities were not available and areas where available no access to them. The inadequacy of these infrastructural facilities in the rural area really account for the relationships. The moderately and extreme poor rural women are living in the same area and they are confronted with similar problems. Thus, there is need to improve the conditions of rural women in terms of their access to infrastructural facilities.

Based on the findings of the study, the following recommendations are made:

1. Efforts should be made by individuals, philanthropists and governments at local, state and federal levels to make provision for the improvement of infrastructural facilities since improvement in these areas will foster opportunities for rural women to improve the quality of their lives
2. Government should provide good roads; marketing channels and reliable public means of transportation to enable rural women transport their farm produce easily to the market.
3. Efforts of the government, community, and farmer cooperative societies and women groups should be mobilized and adequately funded to ensure adequate supply of rural infrastructures necessary for rapid integrated rural development of our communities and farm and non-farm enterprises of rural women.

Table 2: Correlation Coefficient on the relationship between Rural Women's access to Infrastructural facilities and their use of poverty alleviation strategies

	RPT	ASF	PF	HCF	PS	SS	E	GWS	CS	WG	MGP	PAS
RPT	1.000											
ASF	0.148	1.000										
PF	-0.108	-0.074	1.000									
HCF	0.384*	0.228*	0.079	1.000								
PS	-0.224*	-0.104	-0.074	0.002	1.000							
SS	0.245*	0.052	0.228*	-0.294*	0.030	1.000						
E	-0.249*	-0.121	-0.105	-0.204*	0.183	-0.206*	1.000					
GWS	0.103	-0.114	0.052	-0.112	0.298*	0.489*	-0.043	1.000				
CS	-0.011	0.439*	-0.129	-0.007	0.212*	-0.105	0.103	-0.034	1.000			
WG	0.259*	0.138	-0.176	-0.209*	0.411*	0.089	0.243*	0.308	0.059	1.000		
MGP	0.319*	0.142	0.037	-0.170	0.033	0.129	0.108	0.215*	-0.021	0.560**	1.000	
PAS	-0.143	-0.115	-0.004	0.166	-0.095	0.028	-0.296*	0.198*	0.599**	0.432*	-0.301	1.000

Tested at 0.05 level of significance.
* Correlation is significant at the 0.05 level
** Correlation is significant at the 0.01 level

Key: RPT = Reliable Public Transportation
ASF = Adequate Storage Facilities
GWS = Good water supply
PF = Processing Facilities
HCF= Health Care Facilities
PS = Primary Schools
SS = Secondary Schools
E = Electricity
CS = Cooperative Societies
WG = Women Groups
MGP= Markets for goods produced
PAS = Poverty Alleviation Strategies

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