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Socio-economic Characteristics and Access to Agricultural Information in Public Libraries among Smallholder Farmers in South-East Nigeria

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Abstract

The main source of new information for smallholder farmers ought to be the public library. It is pertinent that new information on agricultural practices is deposited in such libraries as frequently as they are created. The broad objective of this study is to investigate the effect of socio-economic characteristics of smallholder farmers on access to agricultural information and the rating of public library services in South-East Nigeria. This becomes paramount given the volume of new agricultural information, low socio-economic characteristics of smallholder farmers and the expected role of public libraries as the main source of information for rural dwellers. A multistage sampling was adopted resulting to a sample size of 355. Structured questionnaire was used for data collection and data on some economic characteristics were presented using bar charts. The analysis was done using regression method, means and standard deviation. The predictability of frequency of access by socio-economic variables was very high (R^2 = 87.2%) with the identified variables as age, gender, education, farmer experience, membership of farmer association, size of farmland, average annual income, and type of farming as significant ($P < 0.05$). The result shows the mean rating of public libraries in all the services by smallholder farmers as being poor.

Keywords: Agricultural Information, Socio-Economic Characteristics, Smallholder Farmers, Public Library, Access

Introduction

Agriculture has contributed significantly to Nigeria's economy and the livelihood of her people. The decline in its share in the gross domestic product (GDP) over the years due to the discovery of oil notwithstanding, it still remains a very important sector in Nigeria. According to Oyaniran (2020), agriculture contribute on average 24% to the nation's GDP over the past seven years (2013 – 2019) and accounted for less than 2% of total export relative to crude oil (76.5%) in 2019. Federal Ministry of Agriculture and Rural Development (2016) has it that, Nigeria is facing two key gaps in agriculture one of which is the inability to meet domestic food requirements and the inability to export at quality levels required for market success. The author noted that this has made Nigeria to still import a significant amount of food and also not earn significant foreign exchange from agriculture. The implication is that Nigeria is neither satisfied with the local food production nor the foreign exchange earnings.

Kaldor (1970) emphasised that growing exports is the focus for development and Feder (1982) as cited in Igwe, Ede and Ukpere (2015) reasoned that "export creates positive externalities by employing a more efficient institutional structure and production methods". The poor nature of Nigeria's GDP and export of agricultural product notwithstanding, agriculture has been very significant in terms of employment generation, as about 70% of the population lives in rural areas and are dependent on agriculture for their living, (Central Intelligence Agency (CIA), 2013). According to Mgbenka and

Mba (2016), Nigeria government and some foreign bodies have made deliberate efforts to improve Nigeria's agricultural production but these efforts have not yielded expected results. Though Enete and Amusa (2010) noted that government and the private sector, which should drive the sector through consistent policies, robust funding and infrastructural development, have failed to accord this problem the priority it deserves.

Abogan, Akinola and Baruwa (2014) posited that Nigeria's agriculture is proliferated with very small farms, the use of unsophisticated and old-fashioned farming methods, poor access to credit services, poor manufacturing technology, and deficient inputs for farmers, due to shortfall in the availability of production factors. These Okunmadewa (2002), Alayande and Alayande (2004), Spencer (2002), Poulton, Dorward and Kydd (2005) and Apata (2006) noted is as a result of their socio-economic factors which have deterred them from accessing agricultural information. Access to agricultural information is needed by smallholder farmers to help them mobilise and fashion the way they make decision required for farming. Mgbenka, Mbah and Ezeano (2015) stated that information is an essential ingredient in development programmes but Nigerian farmers seldom feel the impact of agricultural information either because they have no access to such vital information or because it is poorly disseminated. Ballantyne (2009) noted that access to agricultural information is needed in addition to different knowledge from different people across the full spectrum of producers, scientists, educators, advisors and policy makers. The author stated that the developing world needs reliable information and knowledge on agricultural issues.

Growth in agricultural sector is information dependent. According to Ayanyemi (2006), information is an essential resource for individual growth and survival. Tadesse (2008) opined that various sets of information and messages are relevant to agricultural activities of farmers such as crop production and protection, animal production and management, and natural resource production and conservation. Contextually, agricultural information revolves around agricultural related activities such as agro-forestry, crop production/ protection, livestock production/management, pest and disease control, fertilizer availability and application, agricultural credit facilities, market prices, improved varieties, weather condition and competitors among others. The complex nature of agricultural environment requires broad based agricultural information that evolves from many scientific findings for improvement in the sector. Smallholder farmers with low socio-economic characteristics are required to access this multifaceted agricultural information from high-tech tools, research and development among others. The socio-economic characteristics include age, education, farming experience, size of land holding among others and according to Hassan, Siddiqui and Irshad (2002) and Hassan (2008), socio-economic factors exert their pressure on the attitude and behaviour of an individual. Overcoming the problem of access to agricultural information by this group of farmers has remained a challenge in the rural areas where communities are often small, widely dispersed across vast areas, and above all very poor socio-economic characteristics.

The onus lies on information service providers such as rural public libraries and their librarians to help access timely, accurate, pertinent, and reliable information to this group of users. It is pertinent to note that new information on agricultural practices is deposited in such libraries as frequently as they occur. IFLA/UNESCO (1995) averred that public library is the local gateway to knowledge, providing a basic condition for lifelong, independent, decision-making and cultural development of the individual and social groups. It is an organisation established, supported and funded by the community, either through local, regional, or national government or through some other form of community organisation (IFLA, 2001). IFLA further stated that a public library provides access to knowledge, information, and works of the imagination through a range of services and is equally available to all members of the community regardless of race, nationality, age, gender, religion, language, physical and mental limitations, economics and employment status and educational attainment. Kibat (1990) stated that there is a growing recognition that library services, particularly public libraries, are an integral part of national socio-economic development and improvement of the general quality life.

Notwithstanding, access to these essential services is most often not satisfactory in developing

countries, especially in the rural area where smallholder farmers reside. Be that as it may, Alemna (2006) stated that public libraries are components of public-sector organisations and have information systems that are intended to contribute to the socio-economic and cultural development of individuals in the society. Bell (1979) noted that developing countries' dependent on information to create innovation and change, places a high premium on their ability to access and use information to create advances in the society. Public libraries and their librarians will be failing in their duty if smallholder farmers do not have access to agricultural information and should, therefore, be challenged to bridge the gap on agricultural information access no matter the socio-economic characteristics of the smallholder farmers.

Following the low agricultural production in Nigeria and given that the expected role of public library especially in rural areas is not being felt it was deemed necessary to sedulously undertake this study. The objectives of this study are to: present the socio-economic characteristics of the smallholder farmers; determine the relationship between the socio-economic characteristics of the smallholder farmers and their access to agricultural information and determine smallholder farmers' rating of library services provided by the public libraries in South-east Nigeria.

Review of Related Empirical Studies

Effect of Socio-economic Characteristics on Access to Agricultural Information

Socio-economic characteristics to a large extent either propel or hinder smallholder farmers' access to agricultural information for increase in their agricultural production. Omoregbee, Awhareno and Ekpebu (2013) carried out a study to analyse cassava farmers' socio–economic characteristics and their access to agricultural information in Delta State, Nigeria. Multi-stage sampling technique was used to select 146 cassava farmers. Data was collected through structured questionnaire and analyzed using frequency counts, percentages and logit regression analysis. Findings revealed that the Ministry of Agriculture, friends and neighbours, radio and television were major sources of information to respondents. It was equally revealed that majority of the cassava farmers access information on available market for produce, produce price, input price, improved cassava varieties, fertilizer type and fertilizer application. Inferential statistics revealed that education, membership of association and extension contact had a significant influence on respondents' access to agricultural information and the Omnibus test on socioeconomic characteristics of the respondents and their extent of access is significant at 5% ($P < 0.05$). The authors concluded that accessibility of cassava farmers to agricultural information in Delta State is generally low.

Likewise, Koskei, Langat, Koskei and Oyugi (2013) carried out study on determinants of agricultural information access by smallholder tea farmers in Bureti District, Kenya. A combination of multistage, purposive and proportionate random sampling was used to select 170 respondents. Data collected was analysed using Statistical Package for Social Sciences (SPSS) version 15 and Probit Model was used to estimate the parameters that determined access to information. The findings revealed that off-farm income, education level, household size, marital status and time spent at tea buying centre significantly influenced access to information by small holder tea farmers. In conclusion it was emphasised that there is the need for the smallholder tea farmers to access information so as to facilitate increase in yield.

In the bid to examine the determinants of credit access by rural farmers in Oyo state, Ololade and Olagunji (2013) identified the socio-economic characteristics of the rural farmers, examined the factors affecting access to credit by the rural farmers, identified constraints faced by rural farmers in credit acquisition. Data was collected with the aid of structured questionnaires, administered on 210 respondents using multistage sampling procedure. The analysis was carried out using descriptive statistics and logit model. The findings revealed that significant relationships existed between sex, marital status, lack of guarantor, high interest rate and access to credit. It was concluded that there is need for financial institutions to help look into the conditions for obtaining credit by farmers, so that the less privilege among them will be able to benefit from credit disbursement especially in the aspect of high interest rate, guarantor and collateral security.

In their study to investigate the effect of farmers' socioeconomic characteristics on access to agricultural information in Pakistan, Rehman, Muhammad, Ashraf, Mahmood, Ruby and Bibi (2013) identified various agricultural information sources of farmers, their access to agricultural

information and its association with the socio-economic characteristics. A proportion of 361 respondents was proportionately sampled from the population of 5850 subscribers of three selected agricultural magazines. The data was collected using questionnaire and analysed. Bivariate analysis was used to test the level of association between the selected variables. The results showed that the print media and fellow farmers were the major information sources of farmers and education and size of land holding had high significant positive relationship with access to agricultural information while age and farming experience had non-significant relationship. The author concluded that there is a dire need for the effective implementation of policies on adequate and easy accessibility of agricultural information to the farmers to enhance the agricultural production.

Jeiyol, Akpan and Tee (2013) examined various issues related to access to credit by both male and female crop farmers in Benue State, Nigeria. Structured questionnaire was used to collect data from sixty male and sixty female crop farmers randomly sampled from eight Local Government Areas of zone A of the Agricultural development project (ADP) of Benue State. The findings revealed that the presence of ageing farming population; low formal education among farmers and importance of remittance to agricultural production in the region. The study also identified rotating credit and local savings as the major sources of credit to both male and female farmers in the region. The estimated Logit model revealed that farmers' household expenditure, cost of fertilizer, cost of hired labour, farm size and farm income are significant determinants of access to credit among male and female farmers in the study area. It was concluded that the study has identified several farm level policy variables that will be useful to formulate farm-based policies that can promote credit access and solve other credit issues faced by female and male farmers in Zone A of the ADP in Benue State, Nigeria.

Nyamba, Malongo and Mlozi (2012) investigated factors influencing the use of mobile phones in communicating agricultural information in Rural Tanzania. A multistage sampling method was used to arrive at 384 respondents and 16 key informants. Data collection was carried out using interview schedules, checklist for key informants and focus group discussions. Data collected was analyzed using a Statistical Package for Social Science (SPSS). The findings revealed that the asymmetry information generates uncertainties in farming business which eventually limit the economic potential of farmers as market participants. Based on the observed penetration rate the author stated that it seemed that basically, the study results, can be interpreted that, mobile phone technology acceptance to rural Tanzania was high enough for one to accompany it with a predictable positive economic impact. It was further revealed that people in the study area capture the advantages of increased number of mobile phone to access information related to their farming business. Factors that influenced mobile phone use in communicating agricultural information included mobile phone ownership, type of agricultural information to be communicated, farming system practiced, network coverage, and respondents' socio-economic characteristics. It was concluded that asymmetry information limits the economic potential of farmers as market participants.

Jain, Ahuja and Kumar (2012) carried out a study to examine the extent of farm women's access to ICTs, the use of ICTs by farm women, the determinants of farm women's access to ICTs and to explore the impact of ICTs on farm productivity and women's empowerment. The findings of the study showed that the farm women's access to ICTs and their usage in the study area was observed to be less. However, it was equally found that access to ICTs has been found to improve the income of the farm women households and increase their participation in the decision-making. The study concluded that access of ICT to farm women is largely determined by the socio-economic status and educational status of the household.

Nouman, Siddiqi, Asim and Hussain (2013) carried out a study aimed at investigating the impact of socio-economic characteristics of farmers on access to agricultural credit in Pakistan. Data was collected using structured questionnaire from a sample of 80 beneficiaries of formal agricultural credit from the district Swabi of Khyber Pahktunkhwa province. Findings suggest that the amount of agricultural credit that can be borrowed by the farmers is significantly affected by their marital status, farm status, farm size, and education level. It was concluded that the findings of the study suggest that a strong relationship exists between the access to agricultural credit and the socio-economic characteristics of the borrowers.

Kughur, Ortindi and Katikpo (2015) carried out

a study to investigate factors affecting farmers' accessibility to agricultural information in Gwer- East local government area of Benue State, Nigeria. Data for the study was collected through the use of structured questionnaire administered on 116 respondents selected randomly from four out of ten council wards that make up the study area. The result of multiple regression analysis on socio - economic characteristics indicates that formal education and annual income were significant. In summary, some of the articles reviewed revealed that access to agricultural information and credit facilities were low and that significant relationship exist between socio-economic characteristics of the farmers and access to agricultural information and in some cases access to credit.

Public Library Services

The rating of information or information services by the users is an appropriate way to examine the extent to which libraries have contributed to effective information services delivery to her users. Kayaoglu (2014) carried a study on perceptions and expectations of public library users in Istanbul, Turkey. This study adopted a survey method and data collected tools were through the questionnaire methods a total of the 643 respondents randomly selected from 15 public libraries in the metropolitan area of Istanbul. The findings showed that the Internet was the main source of information, and that the respondents do not use public libraries because of lack of time, convenience of the internet, not living close to a public library, and also being unaware of library services.

Namugera (2014) studied Users' awareness, perceptions and usage of Makerere library services in the main and selected branch libraries. The findings showed that the public library users lack knowledge of the services their public libraries provide and this is growing concern in public librarianship. This has been caused by poor communication and inadequate interaction between users and the public library, coupled with the library's failure to apply marketing strategies to promote the services they render to the public.

In a study titled user perception of library services and information resources in Kenyan Public libraries, Nzivo (2012) tried to provide information on how public libraries and information services in Kenya National Library Service (KNLS) are perceived, by examining adult users, with a view of improving service delivery and enhancing the effective management of public library services. The findings indicate that greater percentage agreed that the libraries have very conducive reading environments. Nevertheless, there was evidence in abundance from most respondents who completed the survey to suggest that KNLS libraries were well perceived in many dimensions. Users continue to use services and information resources regardless of their condition. A large percentage of respondents indicated that information resources from KNLS libraries equip them with appropriate knowledge to manage their professional information needs. This was a breakthrough in the findings according to the author that services and information resources invested overtime have emphatically impacted in improving users' career and information needs.

Posey (2009) studied Users' Perceptions of Library Service Quality: A LibQUAL Qualitative Study. The student perceptions were to discover the library services accessible at Walters State Community College. A total was of 666 respondents of Walters State Community College, shows the students perception of least level of services, and preferred levels of service.

In addition, Aslam and Sonker(2018) tried to discover the public library users' perceptions and expectations in Lucknow, India. The findings among other things revealed that the services are good, staffs are cooperative and computer and internet facilities were very poor.

An exploratory study conducted by Chang and Hseih (1996) on the perception of library service quality which focus on key clienteles that included staff and students from twenty-one universities in Taiwan indicate that competence, moderation, convenience, tangibles, communications and sufficiency of staff were key determinants in the level of service quality in the libraries.

The findings on a study conducted by Iwhiwhu and Okorodudu (2012) on user satisfaction with public library information resources, facilities, and services at the Edo State Central Library, Benin-City, Nigeria revealed that library users were not satisfied with information resources and services of the Edo state central library. This was as result of the poor state of information resources and insufficient services rendered by the library staff coupled with their poor attitude to work.

Kaunda (2013) assessed service expectation and perception of public library users: towards

development of user needs and user satisfaction measurement instruments for the national library service of Malawi. The findings showed that the services and facilities act as indicators of library usefulness to the sampled users are not clear in the literature. This paper gives suggestions on the effective use of the developed instruments. The paper points out that the user needs assessment and user satisfaction measurement of the National Library Service and improving the relationship between the National Library Service and its users.

Majid, Anwar and Eisenschitz (2001) employed a questionnaire in their study which sought to investigate all the possible factors that contribute greatly to library performances. The results revealed that collections, equipment and physical facilities were considered the most significant issues.

Ranganathan (2012) studied perception and expectation of the users of Bharathidasan university library: A study. The users found the library ambience homely and tidy. In this library location the quality of the book collection is very good. Google is the most preferred search engine of users of the Bharathidasan University library for literate search.

Materials and Methods

Description of the Study Area

This study was conducted in South East area of Nigeria. The area consists of Abia, Anambra, Ebonyi, Enugu and Imo states which covered a total land area of 76,358km^2 and were located on the east of the lower Niger and south of the Benue valley. The ecological area of the zone is diverse with tropical forest and savannah predominating. The annual rainfall has a bimodal pattern, with two cropping (planting and growing) seasons which last from April to October or early November. The dry season starts from late October or early November to early April. The indigenous people of the Southeast Nigeria are predominantly Igbo speaking and many of them are involved in agriculture with two major farming activities, crop, and livestock production. The crops cultivated include rice, cassava, yam, maize, cocoyam, plantain, cashew, oil palm, citrus, and mango, among others. Oil palm has historically been an important cash crop in the study area. The major livestock production in the area includes pigs, goats, sheep, and local cattle (African dwarf species).

Population, Sample/Sampling Procedure

The population consists of 121,953 registered contact smallholder farmers in Southeast Nigeria and the study adopted a descriptive survey design. Registered contact Smallholder farmers from the five states in the southeast region stood as follows: Anambra- 25,404, Enugu- 18,489, Imo- 22, 880, Ebonyi- 31,487 and Abia- 23, 693 (Agricultural Development Programme (ADP), 2016). The number of agricultural zones in Southeast Nigeria by states is: Enugu- six, Anambra- seven, Imo- three, Abia- three and Ebonyi- three. The multi-stage sampling technique involving simple random sampling in each stage was used to draw a portion of the population in this study. In stage one, two agricultural zones were selected from five states that make up Southeast Nigeria. Stage two involved the random selection of one local government from each zone followed by the selection of two agricultural farm communities. The third and final stage was the simple random selection of the study's respondents. The list of all registered farmers in the selected farm communities was used for the sampling frame and random number table was adopted in selecting the respondents. For this, all the states were assigned 71 respondents leading to a total sample of 355.

Methodology

The instrument for data collection was structured interview schedule. This was administered to respondents who can read and understand English and handled as an interview schedule or non-self-administered questionnaire in situations where the farmers could not read or write English (Opara, 2008). Three enumerators were employed in each state on the basis of their experience in data collection especially as regards to rural farmers and knowledge of the area. Replacement sampling was adopted to ensure that 71 responses were sampled from each state making it three hundred and fifty-five smallholder farmers. The schedule was divided into three sections. Section one was on the socio-economic characteristics of smallholder farmers in the study area while section two is on access to information. Section three is on the rating of services provided by the public libraries. The multiple linear regression method was adopted with the dependent variable as frequency of access to information and some of the socio-economic characteristics as predictor variables. The ratings of the services by

public libraries to smallholder farmers in respect of agricultural information are in four-point Likert scale. They were scored as 4- very good, 3- good, 2- poor and 1- very poor. Thereafter, the mean scores were calculated and ranked in descending order for magnitude.

Data Analysis and Findings

The data collected were analysed using a statistical Package and the frequency of responses, its percentages and the corresponding bar charts were obtained. A regression analysis was conducted in order to test for the significant effect of socio-economic characteristics of smallholder farmers on the frequency of access to agricultural information. The research considered eight predictor variables which include: age, gender, membership of farming association, average annual income, type of farming, size of farm land, educational level and years of experience.

Table 1 shows some socio-economic characteristics of smallholder farmers. The percentage of male respondents is 40.4 while that of females is 59.6. This shows that we have more female smallholder farmers in the study area than males.

Table 1: Some Socio-economic characteristics of smallholder farmers

SOCIO-ECONOMIC CHARACTERISTICS	Category	Frequencies	Percentages
GENDER	FEMALE	220	59.6
	MALE	149	40.4
AGE	32.00	19	5.1
	39.00	42	11.4
	46.00	31	8.4
	48.00	123	33.3
	53.00	110	29.8
	56.00	24	6.5
	67.00	20	5.4
EDUCATIONAL LEVEL	NONE	110	29.8
	PRIMARY	129	35.0
	SECONDARY	111	30.1
	TERTIARY	19	5.1
FARMING EXPERIENCE (YEARS)	5-9	67	18.2
	10-14	81	22.0
	15-19	221	59.9
TYPE OF FARMING	CROP	19	5.1
	MIXED	350	94.9
SIZE OF FARMLAND (PLOTS)	0-2	129	35.0
	2-4	204	55.3
	4-6	19	5.1
	6-8	17	4.6
AVERAGE ANNUAL INCOME (NAIRA)	50500.00	38	10.3
	70500.00	92	24.9
	125000.00	111	30.1
	200000.00	110	29.8
	250000.00	18	4.9
MEMBERSHIP OF FARMER ASSOCIATION	NO	350	94.9
	YES	19	5.1

The age distribution of smallholder farmers shows the highest numbers to be within the age of 48 with 33.3%, while the lowest is within the age of 32 with 5.1%. The percentage distribution of educational level shows in descending order, primary 35%, secondary 30%, none 29.8% and tertiary 5.1%. On years of experience, the percentage distribution is 5-9 years with 18.2%, 10-14years is 22% and 15-19years is 59.9%. Types of farming have mixed farming with 94.9% and crop farming with 5.1%.Size of farm land has 0-2 plots (35%), 2-4plots(55.3%), 4-6 plots(5.1%), .6-8 plots (4.6). The percentage annual income of ₦125, 000 is the highest with 30.1% while membership of farming association has the response 'yes' with 94. 9%.

Table 2 shows the result of the regression analysis for prediction of frequency of access by some socio-economic characteristics of smallholder farmers.

Table 2: The Result of the Multiple Regressions with Significant Characteristics

Model	Unst. Coef.		T	Sig.	95% Conf. Interval for B	
	B	Std. Err.			Low. Bound	Upp. Bound
(Constant)	18.561	0.768	24.161	0.000**	17.051	20.072
Gender	2.643	0.389	6.791	0.000**	1.877	3.408
Age	2.129	0.173	12.306	0.000**	1.789	2.469
Educational level	2.002	0.103	8.006	0.000**	1.009	2.006
Farming Experience	0.011	0.001	7.504	0.000**	0.008	0.014
Mem. of farmer Group	0.143	0.030	4.723	0.000**	0.084	0.203
Size of farmland	0.326	0.083	3.927	0.000**	0.163	0.489
Avg. annual income	8.431E-006	0.000	4.237	0.000**	0.000	0.000
Type of farming	-0.569	0.233	-2.446	0.015*	-1.027	-0.112

R= 0.936; R^2 = 0.877; Adjusted R^2 = 0.872; ** Significant at p < 0.01; * significant at p < 0.05.

The characteristics with P d" 0.05 indicate significant contribution to the frequency of access to agricultural information. They are: age, farmer experience, average annual income, membership of farmer group, type of farming, gender, size of farm land and educational level. The coefficient of multiple determination (R squared) of 87.7% indicate the percentage of response variable that is explained by the predictor variables.

Table 3: Mean Rating of the Services Provided by Public Libraries

Library Services	N	Mean	Std. deviation	Remark
Selective Dissemination of Information	355	1.60	1.01	Poor
Reference/Inquires Services	355	1.58	0.49	Poor
Current Awareness Services	355	1.54	0.95	Poor
Photocopy Services	355	1.52	0.67	Poor
Document Delivery Services	355	1.44	0.60	Poor
Internet Services	355	1.18	0.38	Very poor
Translation Services	355	1.09	0.89	Very poor
Overall Mean		1.42		Poor

Table 3 shows the result of the responses on the rating of public library services which are classified as very poor, poor, good and very good. The survey result shows the lowest mean rating of 1.09 which corresponds to translation services and the highest mean rating of 1.60 corresponding to selective dissemination of information. The public library services have an overall mean rating of 1.42. This shows that the services rendered by public library in Southeast Nigeria are poor. The standard deviation ranges from 0.49 to 1.01.

Discussions

The result of the multiple regression analysis indicates the socio-economic characteristics that contribute significantly ($P < 0.05$) to the prediction of frequency of access to agricultural information. Age, gender, educational level, farmers experience, membership of farmer association, size of farmland and average annual income contribute positively, while the type of farming contributes negatively. The implication therefore is that the significant socio-economic characteristics are good predictors of the frequency of access to agricultural information. However, the positive coefficients increase the predictive ability of frequency of access while the negative coefficients decrease its predictive ability. This is in accordance with Awhareno and Ekpebu (2013), Koske et al. (2013), Ololade and Olagunji (2013) Lawal (2017) and others who found that socioeconomic characteristics of farmers affect their access to agricultural information and other production resources. The socio-economic characteristics of farmers affect the way they access agricultural information. It can be either positive or negative. The work of Omoregbee *et al.* (2013) showed that the Omnibus test on socioeconomic characteristics of the respondents and their extent of access to information is significant at 5% ($P < 0.05$). They maintained that the regression model containing the various independent variables is better in explaining farmers' access to agricultural information than the model without the variables.

Equally too, this is in agreement with the findings of Rehman et al. (2013) which revealed that education and size of land holding had a highly significant positive relationship with frequency of access to agricultural information while age and farming experience had non-significant relationship. The rating of public library services in Southeast Nigeria was very poor. This is in accordance with Kayaoðlu (2014) who found that the services that were perceived as "poor" by the participants coincided with the services that could attract the users to the library. Furthermore, Namugera (2014) found that the public library users lack knowledge of the services provided by public libraries. The author revealed that, this was caused by poor communication and inadequate interaction between users and the public library staff, coupled with the library's failure to apply marketing strategies to promote the services they render to the public.

Library services such as reference/inquiry services, internet service among others can as well attract smallholder farmers to the library. It was also found that library service was poor in a study carried out by Iwhiwhu and Okorodudu (2012). The findings of this study are contrary to Aslam and Sonker (2018) who found that the services are good, staffs were cooperative and computer and internet facilities were very poor in Locknow, India.

Conclusion

In conclusion, public libraries can play significant role as a component of public-sector organisations in dissemination of agricultural information. This can ameliorate the effect of socio-economic characteristics of the smallholder farmers on frequency of access to agricultural information for agricultural production. They are the institution within the reach of the smallholder farmers and supposed to be an integral part of their daily activities. The librarians working in the public library should not stay in their comfort zone but should repackage information resources to these farmers. Equally, too, they should organise symposium to discuss about new research findings as they arrive in the library. There is equally the need to organize informal forum in the public library for discussion in order to improve their literacy level. Considering that the smallholder farmers rated the service of public library poor shows that public library staff have to wake up to their responsibility. It is through rating public library services that their roles can be examined.

The results equally have implication on the part of the government. They should not pay lip service

to structural transformation of socio-economic development of rural areas in Nigeria. There is the need for government to improve the attributes of these smallholder farmers in order for them to have potentials to access agricultural information.

Having determined the significant socio-economic characteristics of smallholder farmers that affect frequency of access to agricultural information in public libraries and the rating of the services provided by public libraries on access to information, it is expected that the findings of this study will make it easy for governments, and policy makers to initiate appropriate policies that can augment the contributions of public libraries to access agricultural information by smallholder farmers. Government at Federal, State and local government levels should look into the established public libraries with a view to making them acquire the necessary facilities and resources on agricultural information, since this could be the reason why they do not serve the smallholder farmers well. Librarians should ensure that they acquire all the new information relating to agriculture and also make it accessible to smallholder farmers. All stakeholders should ensure that only qualified librarians are employed to serve in the public libraries. Finally, effort should be directed towards improving some of the smallholder farmers' socio-economic characteristics such as education, membership of farmer association among others.

References

Abogan, O., Akinola, E., and Baruwa, O. (2014). Non-oil Export and Economic Growth in Nigeria. *Journal of Research in Economics and International Finance*, 3(1), 1-11.

Agricultural Development Programme (ADP) (2016). Extension Report of Registered Farmers Presented by the Director of Rofils At 26th Annual South East Rofils workshop, Umudike, Abia State, Nigeria.

Alayande, B. and Alayande, O. (2004). A Quantitative and Qualitative Assessment of Vulnerability

to Poverty Ii Nigeria. Paper Submitted for Presentation of CSAE Conference on Poverty Reduction, Growth and Human Development in Africa.

Alemna, A. A. (2006). Current Information Issues and Developments in Ghana. Alexandria: The *Journal of National and International Library and Information Issues*, 18(2), 63– 69.

Apata, T.G. (2006). Income and Livelihood Diversification Strategies in Oil Polluted areas of Ondo State, Nigeria. PhD Thesis in the Department of Agricultural Economics, University of Ibadan, Ibadan, Nigeria

Aslam, S. and Sonker, S. K. (2018). Perceptions and Expectations of Public Library Users in Lucknow (India): A Study, *Philosophy and Practice (e-journal)*. 2034, 1-15

http://digitalcommons.unl.edu/libphilprac/2034

Ayanyemi, O.O. (2006). The Role of Information in Enhancing the Status of Women in Developing Countries. *Nigerbiblos* (1and2) 151- 170.

Ballantyne, I. (2009). Recruiting and Selecting Staff in Organizations. In: S. Gilmore and Williams, S. (eds.) Human Resource Management

Bell, D. (1979). Communication Technology: for better, for worse. *Harvard Business Review*; 57(95) 4.

Chang, P. L., and Hsieh, P. N., (1996). Customer involvement with services in public libraries. *Library Review*, 45(8), 17-24.

Central Intelligence Agency (CIA) (2013). The World Fact Book. Retrieved March 3, 2013, from https://www.simonandschuster.com/books/The-CIA-World-Factbook-2013/Central-Intelligence-Agency/9781616088231, 1-23

Federal Ministry of Agriculture and Rural Development (FMARD), (2016). The Agriculture Promotion Policy (2016 – 2020) Building on the Successes of the ATA, Closing Key Gaps Policy and Strategy Documentfile:///C:/Users/USER/Documents/Factors%20that %20have%20eaten%20deep/2016-Nigeria-Agric-Sector-Policy-Roadmap_June-15-2016_Final.pdf

IFLA. (2009) Section of Public Libraries: Website of Public Library acts.

IFLA/UNESCO. (1995) 'The IFLA/UNESCO public library manifesto: Available in various

languages', Proc. of the IFLA, Section of public libraries.

Igwe, A., Ede, C. E. and Ukpere, W. I. (2015). Impact of Non-Oil Sector pn Economic Growth: A Managerial Economic Perspective. *Problems and Perspectives in Management*, 13 (2), 170-182.

Hassan, M. Z. Y., Siddiqui and M. N. Irshad (2002). Effect of Socio-Economic Aspects of Mangogrowers on the Adoption of Recommended Horticultural Practices. *Pakistan J. Agri. Sci.* 39 (1): 20-21.

Hassan, M. Z. Y. (2008). Analysis of the obstacles to Gender Mainstreaming in Agricultural Extension in the Punjab Pakistan: A Case Study of District of Muzaffargarh. Available at: http:/ /prr. hec.gov. pk/thesis/ 2327.pdf

Iwhiwhu, B. E., and Okorodudu, P. O. (2012). Public Library Information Resources, Facilities, and Services: User Satisfaction with the Edo State Central Library, Benin-City, Nigeria. Retrieved from http://digitalcommons.unl.edu/libphilprac

Jain, R., Ahuja, U. R. and Kumar, A. (2012). ICTs and Farm Women: Access, Use and Impact, Ind. *Jn. of Agri. Econ.* 67(3), 386-394

Jeiyol, E. N., Akpan, S.B. and Tee, T. N. (2013). Gender Analysis of Access to Credit by Rural Small Scale Farmers in Benue State Nigeria, *American International Journal of Social Science* 2 (6), 70-78

Kaldor, N. (1970). The Case for Regional Policies. *Scottish Journal of Political Economy,* 17 (3), 337-348.

Kaunda, G. S. (2013). Assessing Service Expectation and Perception of Public Library Users: Towards Development of User Needs and User Satisfaction Measurement Instruments for the National Library Service of Malawi. Malawi: University of Malawi.

Kayaoglu, H. D. (2018). Perceptions and Expectations of Public Library Users in Istanbul, Turkey: The Results of a Survey, Conference Paper 1-19 https://www.researchgate.net/ publication/325360102

Kibat, K.K. (1990). Community Information and Referral Services for Rural Areas of South East

Asia: A Conceptual Framework. *World Libraries,* 1 (2). Available : http://www.worlib.org/

Koskei, R.C., Langat, J. K., Koskei, E.C., and Oyugi, M. A., (2013). Determinants of Agricultural Information Access by Small Holder Tea Farmers in Bureti District, Kenya. *Asian Journal of Agricultural Sciences,* 5 (5), 102-107.

Kughur PG, Ortindi, PI and Katikpo, G. (2015). Factors Affecting Farmers' Accessibility to Agricultural Information in Gwer-East Local Government Area of Benue State, Nigeria, *International Journal of Information and Communication Technology Research,* 5(10).

Lawal, I. S. (2017). Influence of Socio-economic Characteristics of Irrigation Farmers to Access and Utilization of Agricultural Knowledge and Information. Library Philosophy and Practice (e-journal) Libraries at University of Nebraska-Lincoln Spring.

Majid, S., Anwar, M. A., and Eisenschitz, T. S. (2001). User Perceptions of Library Effectiveness in Malaysian Agricultural Libraries. *Library Review,* 50 (4), 176-186.

Mgbenka, and RN, Mbah EN, Ezeano CI (2015). A review of small holder farming in Nigeria: Need for transformation. *Agricultural Engineering Research Journal* 5 (2):19-26.

Namugera, L. (2014). Users' Awareness, Perceptions and Usage of Makerere Library Services in the Main and Selected Branch Libraries. East Africa: Makerere University Library. 1-5.

Nyamba, S. Y., and Mlozi, M. R. S., (2012). Factors Influencing the Use of Mobile Phones in Communicating Agricultural Information: A Case of Kilolo District, Iringa, Tanzania, International Journal of Information and Communication Technology Research, 2 (7) http://www.es journals.org 558-563, (Accessed 10th January 2019)

Nouman. M., Siddiqi, M. F., Asim, S. M. and Hussain, Z. (2013). Impact of Socio-Economic

Characteristics of Farmers on Access to Agricultural Credit. *Sarhad J. Agric.* 29(3): 469-476

Nzivo, C. N. (2012). User Perception on Library Services and Information Resources in Kenyan Public Libraries. *Library Review,* 61(2), 110–127. https://doi.org/10.1108/00242531211220744

Okunmadewa, F. (2002). Poverty and Agricultural Sector. Poverty reduction and the Agricultural sector in Nigeria, edited by Foluso Okunmadewa, Elshaddai Global Ventures Ltd. Ibadan, Nigeria.

Ololade, R.A. and Olagunju, F.I. (2013). Determinants of Access to Credit among Rural Farmers in Oyo State, Nigeria, *Global Journal of Science Frontier Research Agriculture and Veterinary Sciences* 13 (2) 16-22

Omoregbee, F., Awhareno U., and Ekpebu I. (2013). Empirical Analysis of Cassava Farmers' Socio–Economic Characteristics and their Access to agricultural information in Delta State, Nigeria. IOSR *J Humanity and Soc. Sci.*, 9 (1):11–18. Retrieved 5th May 2018, from: http://www.iosrjournals.org/iosr-jhss/papers/Vol9-issue1/C0911118.pdf.

Opara UN (2008) Agricultural Information Sources used by Farmers in Imo State, Nigeria. *Information Development* 24 (4): 289–295.

Oyaniran, T. (2020). Current State of Nigeria Agriculture and Agribusiness Sector, AfCFTA WORKSHOP, file:///C:/Users/USER/Documents /2021%20paper%20in%20 progress /Socio%20Economic/afcfta-agribusiness - current-state-nigeria-agriculture-sector.pdf

Posey, J. (2009). Student Perceptions and Expectations of Library Services Quality and User Satisfaction. Tennessee: Walters State Community College,

Poulton , C., A. Dorward and J. Kydd (2005). The Future of Small Farms: New Directions for Services, Institutions and Intermediation. Paper Presented at the IFPRI / ODI / Imperial College London "Future of Small Farms" Research Workshop, http://www.ifpri.org/events/seminars/2005/smallfarms/sfproc/SO6_Poulton.pdf.

Ranganathan, C. (2012) Perception and Expectation of the Users of Bharathidasan University Library: A Study. Tamil Nadu; India: Department of Library and Information Science.

Rehman, F. Muhammad S. Ashraf, I. et al (2013). Effect of Famers' Socioeconomic Characteristics on Access to Agricultural Information: Empirical Evidence from *Pakistan, J. Anim. Plant Sci.* 23(1), 324-329 Spencer, D. (2002). The future of Agriculture in sub-Saharan Africa and South Asia. In: Sustainable Food Security for All by 2020. Proceedings of an International Conference, September 4-6, 2001, Bonn, Germany. International Food Policy Research Institute, Washington, D.C.

Tadesse, D. (2008) Access and Utilization Agricultural Information by Resettler Farming Household: The Case of MetemaWoreda, North Gender, Ethiopia, An unpublished MLS Thesis p.7. Retrieved 6/6/2012 from www.ethopia.org/context/pdf.

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