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Assessment of users' satisfaction of information provision among agricultural researchers in Nigeria

Oyeniya J. Oluwakemi

National Centre for Agricultural Mechanisation (NCAM), Ilorin, Kwara State, Nigeria.

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In order to improve the performance of agriculture in Nigeria different agricultural research institutions were established. Realising the fact that economic and social development is based on progress in agricultural as well, these agricultural institutions have been striving to ensure food security in the country. But all these efforts have not yielded the desired result as the agricultural output in Nigeria can still not compete favourably with developed countries. Though, it has been established that there can be no research without information. Information is one of the components to achieve sustainable progress in agricultural research. Could it be that the agricultural researchers are not getting enough information for their research activities or they are not satisfied with information provided for research? Thus this study assessed agricultural researcher's satisfaction in terms of information facilities, sources, resources and contents using the researcher in all agricultural research institutions affiliated to agricultural research council of Nigeria (ARCN). The findings revealed that satisfaction with information facilities and information resources are high; but there is need for upgrade in information content and services for better satisfaction. Thus the study made some recommendations for better satisfaction so that there can be increased in research output which will in turn improve agricultural output in Nigeria.

Key words: User's satisfaction, information provision, agriculture, researchers, research institutes.

INTRODUCTION

The evidence improved performance of agriculture in Africa according to Nin-Pratt (2015) in recent years has been quite striking when compared with the past. But despite the improved performance, Nin-Pratt (2015) opined that agricultural productivity growth in Africa continues to lag behind every other region of the world, growing at the rate that is roughly half of the average rate of developed countries. This is one of the reasons why research activities in Nigeria, like in any other developing country are focused largely on agriculture.

In the same vein, economic and social development is based on technological progress in agriculture. To achieve sustained progress in agricultural sector, some basic components are required. They include: appropriate technology, supporting policies and strong institutional capacity (Michael, 2016). Agriculture, according to (Michael, 2016) used to be the largest contributor to the Gross Domestic Product (GDP) in Nigeria before independence. The sector employed the largest number of labour, caused the country to earn

E-mail: olukemioyeniya@yahoo.com.

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foreign currencies and made the country renown in the international community. But of recent he noted that the interest in agriculture has waned in course of time. Meanwhile, according to Idiegbeyan-ose et al. (2018) agriculture relies heavily on information, knowing fully well that it plays a fundamental role in the development of humanity by disseminating necessary information to agricultural researchers, farmers and others in order to improve productivity. Thus the role of information to agricultural extension agents and researchers cannot be over emphasized.

The development vision by Nigeria's government conceptualises a transformation in agriculture that would ensure food security, the right to sustainable development for all. In Nigeria, food accounts for a large, and increasing, share of family budgets for poor and urban families. If prices of staple foods soar, poor people bear the brunt. The Food and Agricultural Organisation (FAO), an agency of the United Nations (UN), once raised alarm that Nigeria, Morocco and Bangladesh faced imminent food crisis (Eme et al., 2014).

It is apparent that successful governments in Nigeria recognized the strategic role of agricultural research, and because of that, the colonial government established a botanical garden in Lagos in 1883. This was followed by the establishment of agricultural departments for Northern and Southern Nigeria and subsequently an agriculture research stations at Moor Plantation and Samaru which were established in 1899 and 1912 respectively. With the formation of regional government after Nigeria independence in 1960, research activities were regionalized. The regional efforts however did not yielded expected results; this prompted the Federal Government once again to intervene in 1970s. This was followed by major reorganization and expansion of research institutes in the 1970s. The enactment of Research Institutes Establishment Order in 1980 led to upgrading of many research stations and departments of research institutes and their research mandates were reviewed to meet the food need of the nation and for export. In November 2006, the Agricultural Research Council of Nigeria (ARC/N) established by Decree 44 of 1999 which is now an Act of the National Assembly was given order to take – off as a supervising agency of Nigerian Agricultural Research Institutes (NARI). These institutes were given national mandate on research areas they should concentrate and, generate technologies that will help solve agricultural problems (Gana, 2003).

Spicker (2007) opined that there can be no research without information. He also ascertained that information is needed from beginning to the end of any reliable research. In Nigeria, like most other developing countries, economic and social development is being shifted to agriculture. This was supported by Ezeala and Yusuff (2011), that for most developing countries like Nigeria, it is an important sector of the economy. Many countries, including Nigeria have realized the value of agriculture

and are making attempt to sustain it by pragmatic agricultural policies. One of such policies in Nigeria is the establishment of specialized institutions otherwise known as research institutes, to carry out research in agriculture for socio-economic development of the country. These specialized institutions which enhance agricultural development largely rely on libraries and their information services. Despite all the efforts of the federal government of Nigeria and huge monetary allocation for the improvement of agriculture, it was realised that food supply is still not adequate.

This fact is further buttressed by Agboola (2014), who noted that inadequate food supply is one of the critical challenges facing Nigeria. He further noted that the Nigerian agricultural sector has not been able to meet the demand for food, because the sector is still predominantly small scale, rudimentary and largely un-mechanized, characterized by subsistent to semi-commercialized production systems. In a similar report by Edo ADP in 2002 cited by Imuonikebi (2010), the report highlighted the Nigerian food supply situation that less than 5 of Nigerians are food secured, 65 are semi-food secured while over 30% of Nigerians are facing the problem of food insecurity. This the author said is attributed to the problem of low food production in Nigeria as a result of crude implement. Could this inadequate food supply be attributed to the fact that Nigerian research institutions are not doing well enough in their various research activities in order to fulfil their mandate to transform the agrarian agriculture to mechanized farming?

In an effort to answer the question on how satisfaction of information affect research output, Chiemekwe et al (2009) opined that gradual decline in research output became noticeable in the 1980s. In the same vein they upheld that good research training, motivation, availability of equipment and good library facilities are fundamental for good research output. In a similar study by Omeluzor et al. (2012) on the use of electronic information resources to determine research output by academic staff in private university in Ogun State, it was observed that research outputs of the academic staff depend largely on the availability and accessibility of information at their disposal.

User's community is the most important component of any information resources because every information services exist for the sole aim to satisfy its users; and how well this purpose is served is a measure of the effectiveness of the information resources. Measuring information satisfaction has been a source of contention for years among researchers for a long time age. The study of information users' satisfaction according to Shi (2001) was dated back to 40 years ago. Since that time, library sciences evaluation and users satisfaction issues have been discussed in a variety of subject. Increasingly, users' satisfaction with information services provision is being recognized as an important factor affecting

researchers' productivity for sustainable agricultural development (Ankpa, 2000). This is the main reason why Rutner et al. (2008) suggested that as an information provider there is need to continue to strive in order to keep our users satisfied by providing the needed information to meet their research needs.

Qualities and quantities of research depend largely on the quality and quantity of information resources available at the institution disposal. Availability of information resources accessibility and use are indispensable to research and community activities, while the continuous existence and relevance in research also depend on the ability to exploit available information resources either in print or electronic formats (Nwalo, 2000; Chukwu, 2005). Information according to Spicker (2007) as earlier stated is very crucial to the overall research productivity. In Nigeria research institutions as observed by Ankpa (2000) is lagging behind in their productivities for sustainable agricultural development which is as a result of their research activities. It is noted that there are no scientific investigation that can take place without the knowledge acquired in the past through information.

Another important factor to be considered is the question of how well are agricultural researchers satisfied with the information they gathered for their research activities? Satisfaction with information was assumed will influence and encourage more research activities. To this end this study focus on the information satisfaction of agricultural researchers in Nigeria and the effect these will have on their research output in form of their research publications.

Objective of the study

The objective of the Study is to assess agricultural researcher's satisfaction with information provision in terms of library services, infrastructure, collections and dissemination of information provision by the research libraries in Nigeria. While the research Question is, what is the level of satisfaction derived from information provided to agricultural researchers in Nigeria agricultural research institutions.

Scope of the study

The scope of this study covers all the agricultural researchers under the aegis of Agricultural Research Council of Nigeria (ARC�). These are agricultural research institutions located across the length and breadth of Nigeria with different mandate peculiar to each geographical zone. In fact some of these research institutions are affiliated to university while other are even situated inside the affiliated university. This study wants to limit its scope to these research institutions in order to have sizeable researchers for the study. On the other

hand these institutions will be a well representative population because their research is basically on agriculture and are established solely for that purpose. The population of this study consisted of agricultural researchers in all agricultural research institutions that are under the Agricultural Research Council of Nigeria (ARC�). These institutions are fifteen in number located all over the six geo-political zones of Nigeria and are being supervised by the ARC� but have different mandates. Each of these institutions has a mandate to carry out different researches peculiar to their zone, in a bid to improving agricultural standards in the country.

All researchers in the (15) agricultural research institutions in the country serve as the population for this study. The instruments used for data collection in this study were questionnaire for some selected agricultural researchers.

METHODOLOGY

Quantitative research design which is a formal objective and systematic process in which numerical data are used to obtain information was used for the study. This method is also used to describe variables, to examine relationship among variables and to determine cause and effect of interaction between variables. The instrument used for data collection was questionnaire. Meanwhile, the study used survey research method, which is suitable for social scientists. Survey is one of the quantitative methods of obtaining information from a given population for a specific purpose. Statistical Package for Social Sciences (IBM-SPSS) version 21.0 was used for coding and analysis of data.

FINDINGS AND DISCUSSION

Findings on the level of satisfaction derived from information provided to agricultural researchers was done using four component like information facilities, information content, information services and information resources. The findings in Table 1 revealed the research institutions and numbers of research staff alongside questionnaires distributed and collected.

The findings on satisfaction with information facilities on Table 2 revealed that space allocated to information services was rated high. This shows that in all the agricultural institutions, there is provision of enough space for the internet users and library users. This could be attributed to the fact that in most cases the internet facilities and the library are together. The findings revealed as well that ventilation is good and the users are satisfied with it as well. Other facilities like sitting arrangement, catalogue arrangement and organization of materials were agreed by the users as been satisfactory. This finding tallies with that of Kim-soon et al. (2013) which stated that a new and quality facilities is said to be of satisfaction level if it is able to fulfil the needs and satisfied its users. This study also corroborate their findings that today's knowledge-intensive environment is

Table 1. Research institutions showing numbers of research staff; Questionnaire distributed and collection (N=483).

S/N	Research Institution	Geopolitical zone	Questionnaire distributed	No. Retrieved (%)
1.	Cocoa Research Institute of Nigeria (CRIN) Ibadan, Oyo State	SouthWest	50	45 (96)
2.	Institute of Agricultural Research and Training (IARandT) Ibadan, Oyo State	SouthWest	40	33 (82.5)
3.	National Institute for Horticulture (NIHORT) Ibadan. Oyo State	South-West	40	30 (75)
4.	Nigerian Institute for Oceanography and Marine Research (NIOMR) Lagos, Lagos State	South-West	50	35 (70)
5.	Nigerian Stored Products Research Institute(NSPRI) Ilorin, Kwara State	NorthCentral	50	33 (66)
6.	National Cereal Research Institute (NCRI) Baddegi, Niger State.	North Central	50	38 (76)
7.	National Veterinary Research Institute of Nigeria (NVRI) Vom, Plateau State	North Central	50	36 (72)
8.	National Institute for Freshwater Fisheries Research (NIFFR) New Bussa, Niger State	North Central	40	25 (62.5)
9.	National Animal Production Research Institute (NAPRI) Zaria, Kaduna State	North West	40	29 (72.5)
10.	National Agricultural Extension and Research Liaison Services (NAERLS) Ahmadu Bello University Zaria, Kaduna State	North West	40	31 (77.5)
11.	Institute of Agriculture Research (IAR)Ahmadu Bello University, Zaria, Kaduna State	North West	50	47 (94)
12.	Rubber Research Institute of Nigeria (RRIN) Benin, Edo State.	South South	50	35 (70)
13.	National Institute for Oil Palm Research (NIFOR) Benin, Edo State	South South	50	32 (64)
14.	Lake Chad Research Institute (LCRI) Maiduguri ,Borno State	North East	–	–
15.	National Root Crops Research Institute (NRCRI) Umudike, Abia State.	South East	50	34 (68)
	Total		650	483 (74.3)

Table 2. How has the following information facilities influence research? (N= 483).

Information facilities	Excellent [No. (%)]	Good [No. (%)]	Fair [No. (%)]	Poor [No. (%)]	Very poor [No. (%)]
Space	108 (23.0)	269 (57.4)	80 (17.1)	10 (2.1)	2 (0.4)
Ventilation	99 (21.4)	249 (53.8)	89 (19.2)	17 (3.7)	9 (1.9)
Sitting arrangement	79 (17.0)	240 (51.7)	115 (24.8)	28 (6.0)	2 (0.4)
Catalogues	50 (11.0)	214 (47.2)	153 (33.8)	30 (6.6)	6 (1.3)
Organization of materials	72 (15.7)	222 (48.3)	125 (27.2)	35 (7.6)	6 (1.3)
Sound	42 (9.6)	181 (41.3)	157 (35.8)	44 (10.0)	14 (3.2)

intensively gearing up to provide adequate resource space and other facilities to support research works. Therefore this research found that there is satisfaction in library facilities for agricultural researchers. The findings on the satisfaction of users on the information content on Table 3 revealed that relevance of information was rated high. That is to say the users are more satisfied with the relevancy of the information. While other content like accuracy, usefulness, accessibility and availability was also rated well. The finding on the contrary revealed that users are not satisfied with currency of the information content available in agricultural research institutions in

Nigeria. The study revealed that there is no current information for their research activities. This corroborated Gomez (2012) findings that out dated information sources is a recurring theme in most countries, where information are perceived to be reliable, accurate and highly credible source but are generally perceived to be out dated and therefore not very useful in research. They also confirmed that is why libraries especially among all information providers suffer low patronage.

The result on respondent's level of satisfaction with information services on Table 4 revealed a situation where two-third of the respondents opined is excellent

Table 3. Respondent's evaluation of information content (N=483).

Information content	Very high [No. (%)]	High [No. (%)]	Medium [No. (%)]	Low [No. (%)]
Relevance	165 (35.6)	211 (45.5)	72 (15.5)	16 (3.4)
Currency	112 (24.7)	182 (40.2)	132 (29.1)	27 (6.0)
Accuracy	130 (28.4)	225 (49.2)	99 (21.7)	3 (0.7)
Simplicity	107 (23.7)	239 (52.9)	100 (22.1)	6 (1.3)
Usefulness	143 (31.2)	228 (49.8)	84 (18.3)	3 (0.7)
Readability	123 (25.5)	232 (50.2)	103 (22.3)	4 (0.9)
Accessibility	113 (24.5)	226 (48.9)	110 (23.8)	13 (2.8)
Availability	97 (21.0)	223 (48.3)	127 (27.5)	15 (3.2)

Table 4. Respondents' level of satisfaction with information services (N=483).

	Excellent [No. (%)]	Satisfactory [No. (%)]	Inadequate [No. (%)]	Poor [No. (%)]
Circulation services	55 (12.1)	252 (55.3)	134 (29.4)	15 (3.3)
Orientation programme	36 (7.8)	221 (48.1)	176 (38.3)	26 (5.7)
E-Resources retrieval services	47 (10.4)	211 (46.8)	158 (35.0)	35 (7.8)
Content page alert	33 (7.4)	201 (45.4)	173 (39.1)	36 (8.1)
Current awareness	48 (10.7)	209 (46.4)	158 (35.1)	35 (7.8)
Service on new arrivals	44 (9.7)	194 (42.9)	177 (39.2)	37 (8.2)
Reservation of books services	46 (10.3)	198 (44.4)	168 (37.7)	34 (7.6)
Staff relationship services	57 (12.6)	261 (57.5)	110 (24.2)	26 (5.7)
References services	51 (11.3)	255 (56.5)	122 (27.1)	23 (5.1)

Table 5. Respondents' level of satisfaction with information resources (N=483).

	Excellent [No. (%)]	Satisfactory [No. (%)]	Inadequate [No. (%)]	Poor [No. (%)]
Textbooks	88 (18.8)	259 (55.3)	112 (23.9)	9 (1.9)
Reference sources	70 (15.4)	247 (54.4)	122 (26.9)	15 (3.3)
Back volume	39 (9.4)	222 (53.4)	140 (33.7)	15 (3.6)
Projects/Thesis/ Dissertation	79 (17.4)	264 (58.3)	99 (21.9)	11 (2.4)
Online journals	164 (35.7)	206 (44.8)	76 (16.5)	14 (3.0)
Newspapers	111 (25.0)	189 (42.6)	122 (27.5)	22 (5.0)
CD/DVD/VCD	42 (9.9)	155 (36.6)	149 (35.2)	77 (18.2)

and satisfactory, one third are of the opinion is inadequate and poor. Anyway, it could be deduced from the findings that circulation services and staff relation services are rated very good. Other services like E-resources retrieval services, current awareness and orientation services are better while other services like content page alert, services on new arrivals and reservation of book services needed to be upgraded. This finding contradicted that of Ezeala and Yusuff (2011) that agricultural research institute libraries in Nigeria are ineffective in their service provisions. This ineffectiveness they stated has resulted from gross under-funding of the libraries by the parent institutions.

Investigation on the satisfaction with information resources on Table 5 revealed that online journal is the

best rated resource which was closely followed by textbooks. On the average are resources like, project/theses/dissertation, reference sources and newspapers. Satisfaction with back volumes, CD/DVD and VCD are very low in the study probably there is not provision for such resources in these institution's information centres.

Conclusion

Satisfaction of information facilities in agricultural research institution was high, starting from the space allocated to sitting arrangement and ventilation. Organisation of information materials and catalogue are in the facilities that users are not satisfied with. When

evaluating the content of information relevance, usefulness and accessibility was rated high by agricultural researchers than currency, availability and accuracy of information content.

Recommendations

- 1) Information provision to agricultural researchers in Nigeria needs some upgrading for better satisfaction in order to improve agricultural research output in Nigeria.
- 2) On the issue of information facilities, there is always room for improvement of facilities for better satisfaction. In order to provide current information for agricultural researchers, there is need to allocate budget for the library in order to purchase current information sources into the library.
- 3) Librarians and other information staff should gear up to their responsibilities in helping agricultural researchers to source for information. This can be done through selected information dissemination (SDI), thereby making themselves relevant in their profession and justify purpose of their existence in the institutions. This will also give room for authorities involved to have positive defence for library budget. Inclusion of other information sources into the library is also essential.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests

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