INFORMATION SERVICES PROVISION FOR ACCESS AND UTILIZATION OF AGRICULTURAL SCIENCE STUDENTS IN NATIONAL AGRICULTURAL EXTENSION RESEARCH AND LIAISON SERVICES (NAERLS), AHMADU BELLO UNIVERSITY, ZARIA,

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ABSTRACT

This study investigated Information Services Provision for Access and Utilization of Agricultural Science Students in National Agricultural Extension Research and Liaison Services (NAERLS), Ahmadu Bello University, Zaria.The study aimed at finding out the types of agricultural information services required for access and use by agricultural science students from NAERLS, ABU, Zaria and the level of awareness of agricultural science students on agricultural information services provided by NAERLS, ABU, Zaria. The study adopted quantitative research method using descriptive research design. The population of the study was 995 and a sample size of 320 was drawn for the study from agricultural science students inFaculty of Agriculture, ABU, Zaria.Questionnaire was the instrument used and in order to incorporate all respondents in all levels, proportionate stratified random sampling technique was used in selecting respondents for the study. Data collected were sorted and analysed using frequency tables, simple percentages and descriptive mean of Standard Deviation. Findings revealed that agricultural science students of Ahmadu Bello University Zaria access and useTechnical/Scientific and Commercial Agricultural Information Services and are aware of these services.Consequently, the study recommended that NAERLS and her international bodies should create more awareness on the availability of these agricultural information services as they are of importance to the entire students of Ahmadu Bello University Zaria and not the agricultural science students alone. Also efforts should be intensified on creating a pact between NAERLS, their international agencies and their immediate environment which they are expected to serve on the available services for effective and efficient use.

Keywords:Information Provision, Access, Utilization, Agricultural Extension Information

Introduction

Information provision is a calculated and deliberate attempt to circulate generated and stored information to a targeted audience for a purpose (Empowerment, Self Reliance, Health, Education etc). This Information is either provided willingly or at the request of the user. Information use is central to all discipline and human endeavor. The information an individual or a group is disposed todetermine how they fare in today's world. This istrue when the informationdeals with self-reliance and development. Therefore, adequate information provision and use have implications on many domains (youth/student, development, reliance

empowerment, health, education etc). For effective information provision and use, especially for agricultural practices, students need to know types of information needed and be aware of the services available with the agencies responsible for such services. When this is achieved,students can fully access and utilize the services available for development.

The National Agricultural Extension Research and Liaison Services (NAERLS) is one of the organizations saddled with the responsibility of making known new agricultural innovations and information services for improved production. According to Adams (2011) agriculture and farming in Nigeria is incomparable to petroleum. It has been the most important contributor to the Gross Domestic Product (GDP) in terms of employment, empowerment, self reliance and development before the oil boom in Nigeria. The place of agricultural information services and utilization in self reliance cannot be overemphasized. Therefore, if agricultural information has to be made available for self reliance, adequate knowledge on types and awareness of agricultural information services from places like NAERLS is needed.

Problem Statement

Viable Agricultural Extension Information Services (AEIS) is supposed to occupy a central place in self-reliance and developmentbecause agriculture and food production are key facets of national development. Agriculture being an important sector of most growing economy as studies have shown has high potentials for self-reliance, employment generation, food security and poverty reduction (Idachaba, 2010; Anderson, 2012 & Scott 2013).

Despite the prospect of agriculture, it remains unclear why farming and agricultural practices are not fascinating to students while unemployment population growth is not met with job provision at the desired level and poverty still high. Even with evident potentials of agriculture andsuitable climate/weather for practice, students from different higher institutions

and Ahmadu Bello University inclusive are finding it difficult to embrace agriculture and are faced with limited choices in job security.

The question therefore remains as to whether these students lack the knowledge and awareness of the available types of AEIS in services of NAERLS that could cater for their empowerment needs against social ills. While the researcher observed that most students of Ahmadu Bello University, Zaria, are victims of unemployment and could be prey to antisocial behaviours,however services in NAERLS could suffice. From further observations, students of ABU, Zaria resort to proceeding for their second or third degrees as the case may be due to lack of immediate job opportunities after graduation. This study therefore becomes necessary to find out agricultural science students' access and utilization of AEIS provision and dissemination by the NAERLS, Ahmadu Bello University, Zaria, Nigeria.

Research Questions

The following research questions were used for the study:

1. What types of agricultural information services are required for access and use byagricultural science students in NAERLS, ABU, Zaria?
2. What is the level of awareness of agricultural science students on agricultural information services available in NAERLS, ABU, Zaria?

Literature Review

Agricultural Extension Information Services

The making of a good agricultural extension information service (AEIS) centres depends on the quality and types of agricultural information it acquired and the ability to disseminate such information for use. Adams (2015) sees AEIS as processes, services and programs that are designed by agricultural extension information workers to makeagriculture simpler and

productivity higher. According to Anandajayasekeram (2008), it revolves around providing related agricultural information for practices by the capacity to innovate through access to knowledge and information services on agriculture needed for practices (Anaeto, 2012).

Types of Agricultural Extension Information Services for Access and Use

AEIS and agricultural production is indispensible as it offers more than just expert services in agricultural production. Different AEIS enables flow of information, transfer of knowledge and scientific findings for agricultural productivity on land, labor, livestock, capital and management (Zivkovic, Jelic& Rajic, 2009). In line with this, Contado (2009) asserted that agricultural productivity can be improved by relevant types ofagricultural information. Therefore, the sensitization and creation of agricultural information by extension services is a necessity. This body create avenues to exhibit the available types of agricultural information to students so that they can make better decisions on practices of agriculture.Types of agricultural information practices to equip practitioners according to Al-Sharafat (2012) is an empowerment itself because it spells out choices a practitioner can make in achieving full scale agricultural productivity. According to FAO (2016), it holds key to success of self reliance campaigns.

Mathur & Sinha (2013) posited that achieving sustainable agricultural development is less based on material inputs (e.g., seeds and fertilizer) but basic information ontypes of practice for better productivity. Basically, types of agricultural information and knowledge for decision making revolves around the followings: Technical/scientific agricultural information (increased production, pest management, disease control etc), commercial agricultural information (marketing of produce, credits, cooperatives, loans etc), socio-cultural information (practices, local cultures, labor availability, information on farming community, etc) and legal agricultural information (Al-sharafat, 2012).

According to Anandajayasekaram, (2008) types of agricultural information for productive agricultural practices works hand in hand with services like Short Message Services, Price Information Services, Dissemination of Agricultural Technical Information Services (DATIS), Awareness Services, Public Relation Services, Designing and Media Production Services, Agricultural Teaching Aids Services, Agricultural Production Services, Illustrations/Translations Services, Advertising Services, Audio Recording Services, Agricultural Radio Services, Broadcasts Services, Audio Visual Services, Agricultural Air Space Services for advertising.

As a result of the types of agricultural information, stake holders are making effort to create link between those who generate the information and those who use it. This is to ensure reliable provision of varied agricultural information services to the public which according to Wheeler (2008) is the key to food security, poverty eradication and development. This in conjunction with a good insight on knowledge and understanding on types will form a foundation for creating universal awareness on the suitability of types of agricultural information and practices for prospective clients.

Awareness of Agricultural Extension Information Services

Awareness of information plays an important role in its utilization. Awareness, access and utilization of agricultural information for reliance and development go hand in hand. Without types and its availability, there will be no awareness, access nor utilization. Bokor (2011) reported thatAEIS has reached the limits of available natural resources such that future increases in agricultural production and rural development are hinged on proper awareness of the types of services available. Awarenesson types is changing the quantity/quality and nature of information clients need. The emerging role of awareness as created by AEIS is closer to that of socio

economic/rural development than technical expertise (Blackburn & Flaherty, 2012). The above, confirms that awareness of types of agricultural information and its provision needs expansion.

Therefore, awareness on knowledge, information, skills, technologies, and attitudes in AEIS are to be explored for the intensification of agriculture for development (FAO and World Bank, 2014). They further noted that awareness of AEIS in any society plays an important role as it provides information on new technologies that can be adopted to improve production. Adams (2011) reported that creation of awareness through radio programs, television programs, extension publications, news paper articles, newsletters, leaflets, practices, agents, shows, field days and interactions with farmers provides means by which they are edified.

With competitive agricultural production powered by globalization, awareness of agricultural information plays significant role for embracing agriculture for empowerment. According to the United Nations Development Programs (2013), awareness in extension services is essential to diversify production, produce for markets and value-added production. AEIS being a growing avenue of information provision to clients in most African countries has significant role in adoption of innovations for effective awareness to practitioners (Agbamu, 2015).

Van Den Ban & Hawkins (2008) posited that the effectiveness of AEIS delivery is critically dependant on the awareness on the various types of agricultural information available. This is based on the fact that awareness will influence their attitude in approaching the agricultural related practices. In line with Van Den Ban & Hawkins, Wheeler (2010) noted that the mission of agricultural extension information services is to create awareness on research-based information, educational programs and technologyto make informed decisions about economic, social and cultural well-being. This, they conclude will not be possible without adequate awareness. Awareness therefore should be given priority as to long-term ecological

practices such as biodiversity and soil quality, rather than short-term productivity gains (Abdullahi 2013).

Methodology

Quantitative research method was adopted for the study while using descriptive survey research design.This was based on the fact that the research relied on the collection of quantitative data.The population for the study was the whole 995 undergraduate student of the Faculty of Agriculture, Ahmadu Bello University Zaria, Kaduna state comprising 100 to 500 levels as at 2017/2018. The researcher adopted a proposed table of sample determination by Cohen, Manion & Morrison (2011) and that of Research Advisors (2013). They proposed that for a population that spans between 900 and 1,000, a sample of 278 can be drawn with confidence level of 95% and a margin error of 5%. To this effect, a sample size of 320 was drawn for the study using Proportionate stratified random sampling techniques.

A total of 320 copies of the questionnaire were administered to the students. The distribution of the questionnaire was face to face to agricultural science students in their faculty. This exercise spanned 6 weeks andthe data collected from the field was analysed usingDescriptive statistics of mean and standard deviation, frequency and percentages.

Findings and Discussions

Table 1: Types of Agricultural Information Services required from NAERLS

S/N	Statements	Frequency	Percentages(%)
1	I require Technical/Scientific AIS	261	87.5
2	I require Commercial AIS	260	87.2
3	I require Legal AIS	250	83.8
4	I require Social/cultural AIS	250	83.8
5	I require Short Message Services	200	67.1
6	I require Price information services	250	83.8
7	I require Dissemination of Technical AIS	230	77.1
8	I require Awareness services	150	50.3
9	I require Public Relation Services	150	50.3
10	I require Designing, media Production/ Advertising	168	56.3

	Services		
11	I require Agricultural teaching aids	200	67.1
12	I require Agricultural production services	250	83.8
13	I require Illustrations/translations services	248	83.2
14	I require Audio recording services	247	82.8
15	I require Agricultural Radio, Airspace/Broadcasts Services	249	83.5
16	I require Specialised AIS	148	49.6
17	I require Interactive Voice Response	198	66.4
18	I require Imagery Monitoring Services	170	57.0

Field Study, 2018

Table 1 detailed the response of agricultural science students on the type of agricultural information services they required from NAERLS. The result showed that the types of agricultural information services required by agricultural science students from NAERLS varies and revolves around most of the items on the list. However, findings revealed that Technical/scientific agricultural information services is shown to be the most acquainted with and required by the respondents as indicated by 261 (87.5%) closely followed by commercial agricultural information services 260 (87.2%) as being required. Legal agricultural information services, socio-cultural agricultural information services, and price information services all at the same frequency 250 (83.8%). This is immediately followed by agricultural radio, airspace and broadcast services 249 (83.5%) and illustration and translation services 248 (83.2%). Dissemination of technical agricultural information services follows with 230 (77.1%) while short messages and agricultural teaching aids is at 200 (67.1%). Interactive voice response with 198 (66.4%) and imagery monitoring with 170 (57.0%). Awareness services and public relations both at 150 (50.3%) and lastly Specialised agricultural information services response at 148 (49.6%). The implication and correlation of this is that contemporary agricultural activities are technologically carried out and mostly, products are eventually directed to the market either for immediate consumption or for onward processing. It is therefore not surprising that

technical/scientific agricultural information service and commercial agricultural information service top the list.

Alfred &Odefadehan (2007); and Farooq, Ishaq, Karim &Issah (2010) conducted studies to determine the types of agricultural information services for reliance as may be required by the public from agricultural extension workers. Alfred and Odefadehan (2007) particularly identified various agricultural information types by extension workers required for reliance to centre around technical/scientific information since present day farming activities are mechanised.

Level of Awareness of Agricultural Information Services from NAERLS

The second objective of the study was to find out the level of students' awareness on agricultural information services. Responses of students were summarized in mean and Standard Deviation. The data collected from respondents using Likerts five items scale of measurement were collapsed under three headings/items for analytical convenience and clarity. Highly aware and aware as aware, unaware and highly unaware as unaware, while undecided remained retained.

Table 2 Level of Awareness of Agricultural Information Services

N	Statements	Respondents			Total	Mean	SD
		A	UA	UD			
1	I am aware of Price Information Services	258(86.5%)	35(11.7%)	5(1.6%)	298	1.77	2.16
2	I am aware of Short Message Services	240(80.5%)	56(18.7%)	2(0.6%)	298	1.01	1.01
3	I am aware of Social/Cultural Agricultural Information	250(83.8%)	41(13.7%)	7(2.3%)	298	0.98	0.84
4	I am aware of Audio Recording Services	200(67.1%)	70(23.4%)	28(9.3%)	298	2.1	0.83
5	I am aware of Public Relation Services	200(67.1%)	93(31.2%)	5(1.6%)	298	1.68	0.94
6	I am aware of Agricultural Teaching Aids Services	178(59.7%)	118(39.5%)	2(0.6%)	298	1.99	0.9
7	I am aware of Agricultural Production Services	205(68.7%)	66(22.1%)	27(9.0%)	298	1.5	1.06
8	I am aware of Awareness	215(72.1%)	76(2.5%)	7(2.3%)	298	1.97	0.9

	Services						
9	I am aware of Interactive Voice Response Services	200(67.1%)	80(26.8%)	18(6.0%)	298	1.66	0.66
10	I am aware of Technical Agricultural Information Services (DTAIS)	250(83.8%)	40(13.4%)	8(2.6%)	298	1.91	0.81
11	I am aware of Illustrations and Translations Services	198(66.4%)	100(33.5%)	0(0%)	298	1.29	0.86
12	I am aware of Agricultural Radio, Airspace and Broadcasts Services	222(74.4%)	63(21.1%)	13(4.3%)	298	2.03	0.61
13	I am aware of Specialized Information Services	204(68.4%)	75(25.1%)	19(6.3%)	298	1.22	0.92
14	I am aware of Technical and Scientific Agricultural Information Services	249(83.5%)	40(13.4%)	9(3.0%)	298	2.02	1.22
15	I am aware of Designing, Media Production and Advertising Services	227(76.1%)	60(20.1%)	11(3.6%)	298	1.31	0.75
16	I am aware of Imagery Monitoring Services	236(79.1%)	50(16.7%)	12(4.0%)	298	1.69	0.71
17	I am aware of Commercial Agricultural Information Services	215(72.1%)	74(24.8%)	9(3.0%)	298	1.11	1.12
18	I am aware of Legal Agricultural Information Services	245(82.2%)	40(13.4%)	13(4.3%)	298	1.23	1.14

Field Study, 2018

Key: A=Aware; UA=Unaware; UD=Undecided; SD=Standard Deviation

FromTable 2, the items stated for the respondents have the following mean scores on 5-point Likert scale.Price Information Services($\bar{x}$ =1.77;SD=2.16), Short Message Services($\bar{x}$=1.01;SD1.01), Socio/cultural agricultural information ($\bar{x}$ =0.98;SD0.84), Audio Recording Services ($\bar{x}$ =2.1;SD0.83), Public relation Services ($\bar{x}$=1.68;SD 0.94), Agricultural Teaching Aids Services ($\bar{x}$=1.99;SD0.9),Agricultural Production Services ($\bar{x}$=1.5;SD1.06),Awareness Services ($\bar{x}$=1.97;SD0.9),Interactive Voice Response Services ($\bar{x}$=1.66;SD0.66), Technical Agricultural Information Services ($\bar{x}$=1.91;SD0.81), Illustration/Translation Services ($\bar{x}$=1.29;SD0.86),Agricultural Radio, Airspace and Broadcasting Services ($\bar{x}$=2.03;SD0.61), Specialized Information Services

($\bar{x}$=1.22;SD0.92),Technical/Scientific Agricultural Information Services ($\bar{x}$=2.02SD1.22), Designing, Media Production and Advertising Services ($\bar{x}$=1.31; SD0.75), Imagery Monitoring Services ($\bar{x}$=1.69;SD0.71),Commercial Agricultural Information Services ($\bar{x}$=1.11;SD1.12),Legal Information Services ($\bar{x}$=1.23;SD1.14).

Table 2 revealed that the level of awareness on agricultural services is high. This could be based on students' background. It specifically shows the mean for price information services to be 258 (86.5%) and that of socio cultural agricultural information services to be 250 (83.8%) being the highest, while awareness on agricultural teaching aids and illustration/translation services ranks lowest with 178 (59.7%) and 198 (66.4%) respectively. This is not just in the sense of available data and facts around agricultural extension information services but the form of representations that provide meaning and the context for purposive action.

The implication of this finding is that most students are interested in agricultural practices through awareness owing to their agricultural background. But they need firm support from agencies/government. This finding agreed with Mugwisi& Mostert (2012) who identified that awareness on any information service is always the basis for the utilization of such services. On the other hand, they suggested that the most effective way of creating awareness and disseminating agricultural information services is by making it part of academic curriculum of the student. Through this process, more awareness is created formally and informally.

Summary of Findings

The following are the summary of findings:

1. NAERLS generates and make available different types of agricultural information via research activities such as Technical and Scientific Agricultural Information service, Commercial

Agricultural Information Service, Legal Agricultural Information Service, Socio Cultural Agricultural Information Service, Teaching Aid Services, Translation Services among others.

2. The majority of the respondents are mostly aware of agricultural information services related to price information agricultural services, and socio-cultural agricultural information services as provided by the NAERLS.

Conclusion

From analysis and summary of the findings, it could be concluded that different types of Agricultural Information Services are available in NAERLS and these services are of importance to agricultural science students of Ahmadu Bello University Zaria. It is also concluded that the students are interested in agricultural information services. It was noted that agricultural science students have come to terms with the relevance of these agricultural information services. However, many of the students have agreed in this study that though there is awareness, access and utilization of technological-based agricultural information awareness for satisfactory agricultural practices need to be the focus. This is associated with the fact that 21st century agriculturalpractices are highly mechanized and technology based.If well harnessed, these services will go a long way in helping students in their quest for reliance on agriculture.

Recommendations

Based on the findings and the conclusions, the following recommendations were made:

1. The different types of agricultural information services by NAERLS on specialized agricultural information services, public relations and production services should be added to the syllabus of the university, taught as one of the general courses.

2. The universityshould liaise with NAERLS to reach wider awareness to students on agricultural teaching aids Services, illustration and translation Services.

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