

Factors Influencing the Utilization of Research Findings by Agricultural Education Lecturers in South-East Nigerian Universities

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Abstract

The study determined factors influencing the utilization of research findings by Agricultural education lecturers in South-East Nigerian Universities. Five objectives guided the study, five research questions were posed and five hypotheses were tested for the study. A survey research design was adopted for the study. The target population of the study was 56 persons made up of 34 male and 22 female lecturers of Agricultural Education in 6 public universities in South-East Nigeria. The study used universe or census; hence there was no sampling. A structured questionnaire titled: Factors Influencing the Utilization of Research Findings Questionnaire (FIURFQ) was used as instrument for data collection. This instrument was adapted by the researcher from review of related literatures. The internal consistency of the FIURFQ was determined at an acceptable reliability index of .87 using Cronbach's Alpha Coefficient method. Data collected for the study were analyzed using descriptive statistic such as mean and standard deviation. Mean was used to answer research question while standard deviation was used to determine degree of responses. Independent Sample t-test was used to test the 4 stated hypotheses at 0.05-level of significance. The study identified 7 economic factors, 4 environmental factors, 12 lecturer-related factors, 3 political factors and 12 research-related factors influencing the utilization of research findings by Agricultural education lecturers in South-East Nigerian Universities. It was recommended among others that government through the Ministry of Education and University administrators should ensure the establishment of enabling academic environment and policies that would facilitate utilization of research findings by lecturers to facilitate teaching and learning.

Keywords: Research, Research Utilization, Non-Utilization of Research Findings, Factors Influencing Research Utilization, Research findings, Theory of Reasoned Action (ToRA)

Introduction

Research findings in Agricultural Education can play a salient role in advancing agricultural and educational practices in South-East Nigerian Universities. Interestingly, South-East Nigerian researchers and lecturers in Agricultural Education produce many research findings annually. These research outcomes or findings are presented at academic conferences and seminars while others are domiciled in offline and online journals making them available for users (Asogwa, Okoye & Nongugwa, 2016). Research improves the limit of what is known about knowledge and contributes significantly to social, physical, economic and educational development of the society (Oduwaiye, *et. al* 2009). Osuala and Ihekweba (2014) view research as the search for knowledge or any systematic investigation to establish reality. The authors further asserted that research is not a story, a guess, a dream, an imagination or a

prophecy because all these are not based on facts or data. This implies that research mainly seeks to carefully find out facts about a particular issue or problem. These facts or findings of research are important in solving concrete problems confronting the social, educational and economic endeavours of man. Its main purpose is to inform action, to prove a theory and thereby contribute to developing knowledge in a field or study (Iwujiet. *al*, 2000). According to Asogwa *et al.* (2016), research findings are the outcomes of investigation made through collecting, organizing, analyzing and explaining or interpreting data about a particular subject matter in a particular field of study. The authors further stated that such outcomes can be used for expansion and development or advancement of knowledge in all educational discipline such as agricultural education. In the context of this discussion, research findings in agricultural education are innovative, realistic and useable information generated through thorough research in issues of agricultural education. However, no matter how innovative research findings are, they will not make a difference in the lives of the target community, unless they are properly utilized in an appropriate and timely manner (Huberman in Kimanthi, 2014).

Research utilization, also known as knowledge translation, knowledge to action, research to practice, and implementation research, is explained as the process of synthesizing and using research findings in order to make an impact on or a change in the existing practices in the universities and society (Burns & Grove, 2005; Futrel, 2011). It promotes innovative changes that result to enhanced client outcomes, facilitate critical and improved thinking and practices, and can bridge the gap between scientific evidence and existing policy and practice (Futrel, 2011; Walugembe *et al*, 2015). Research findings in Agricultural Education can therefore be conceptualized as making decisions and using information generated from agricultural education research for improved practices in Agriculture and Education. Information generated through research in agricultural education is usually utilized by agricultural education lecturers to strengthen or improve teaching and learning processes in the universities and colleges of education (Asogwa *et al.*, 2016). Notably, research utilization in Agricultural education can improve policy decisions on resource allocation for services and programmes and decisions about how to accomplish and fund those services (Gamer *et al.*, 1998; Hennink & Stephenson, 2005). Non-utilization of research findings can be described in terms of the poor relationships between the researcher and its consumer and in particular the policy makers (Kimanthi, 2014). Therefore, inadequate utilization of research findings by Agricultural education lecturers can slow the tempo of agricultural and education development in South-East Nigerian Universities.

Unfortunately, despite the numerous research findings turned out by researchers and lecturers in the field of agricultural education in South-East Nigerian Universities which are documented in online and offline journals, there seems to be poor utilization of these findings by Agricultural Education lecturers which possibly results to the prevailing poor agricultural and educational practices in South-Eastern Nigerian universities. This problem observed by researchers could probably be as a result of some challenges affecting the utilization of the research finding in Agricultural Education. In agreement to the observation made by researchers, Asogwa *et al* (2016) noted that most Agricultural Education lecturers still make use of the old and outdated knowledge and skills in agricultural education during service delivery in the 21st century. Researchers are of the opinion that poor or non-utilization of research findings in Agricultural Education by lecturers would lead to poor practices in Agriculture and Education, hence there is need to identify factors that influence utilization research findings by agricultural education lecturers in order to address the issues appropriately and timely. Hence, the study seeks to identify factors influencing the utilization of research findings by Agricultural Education lecturers in South-Eastern Nigerian Universities. The findings of this study would provide empirical information for policy makers, University authorities, and Agricultural Education Administrators and lecturers on educational, political, environmental and economic factors that influence research utilization. This would thus spur them to adopt appropriate measures based on these factors to enhancing research utilization in South-Eastern Nigerian Universities.

Review of Related Empirical Studies

There seems to be little or no existing studies on factors influencing the utilization of research findings by Agricultural education lecturers in South-East Nigerian universities. Studies have been done on factors influencing utilization of research findings but most of them are in the medical field (Lyons, 1966, Albert, Fretheim & Maïga, 2007, Dudding *et al*, 2009, Thompson, 1999, Waelti-Bolliger, 2011, Kimanthi, 2014, Mpelega, 2015, Mihaela *et al.* 2016). Specifically, Lyons (1966) investigated factors influencing utilization

of research findings in institutional change. Results of the study revealed that timeliness, concreteness, extent of personal interest in the value of research findings, quality of communications, cost, engineering capability to transform research findings into operational terms and compatibility of research findings with long accepted practices are some factors affecting utilization of research findings. Albert, Fretheim and Maïga (2007) examined the factors influencing the utilization of research findings by health policy-makers in Mali. The results of the study revealed that trust in research, research information accessibility, relevance of the research, use of research perceived as a time consuming process, authority of respondents, competency in research methods, priority of research in the policy process, and accountability are factors influencing research utilization. Hence the authors concluded that enhancing the transfer of research to policy will require joint efforts of researchers, policy-makers, and third parties. Kimanthi (2014) carried out a study in Kenya on factors influencing utilization of agricultural research findings among rural communities. Results from the analysis of data collected for the study indicated that poverty accounting for 57.6 (%) of the respondents earning less than Kshs 5,000 and illiteracy at 46.8 (%) were the major factors influencing the utilization of research findings in improving crop production. Other significant factors revealed by the study included; female headed households, lack of adequate research findings and barriers created by language. Kimanthi (2014) concluded that to enhance utilization of research findings by rural communities, there should be involvement of community members in the generation and consumption of research findings through promotion using mass media. Love in Anumaka (2014) found that the nature of research findings, process of its production, characteristics of the user, nature of situation and context of use are some factors affecting utilization of research findings in universities. Mpelega (2015) investigated factors influencing utilization of research findings in clinical practice by nurses in Botswana. It was found by the researcher that the extent to which nurses use research findings depends on their research competence, level of educational exposure, number of research related workshops attended, perceptions, attitude and research related courses taken.

More so, studies have also been carried out on challenges of utilizing research findings. Bryar *et al* (2003) carried out a diagnostic analysis of barriers to research utilisation by nurses which could be applicable to agricultural education lecturers. The researchers identified barriers to research implementation experienced by nurses as lack of: enough time to read and apply research, lack of authority to change practice, lack of support of managers and peers to accomplish successful practice change and lack of critical appraisal skills and understanding of statistic. Anumaka (2013) in a study identified lack of knowledge transfer setting, lack of information and data banks for research findings, non placement of experts in research departments, lack of advocacy of current research findings to the public for reference purposes and quality decision making as factors influencing the utilization of research findings in universities. Anumaka (2014) examined the level of Higher Education research and utilization of findings in Uganda as essential functions of universities. Findings of this study revealed that factors affecting research and utilization among others include lack of trust in the quality of research, lecturer's workloads, and findings of research not developed in a usable form.

Asogwa *et al.* (2016) carried out a study on challenges and coping strategies of lecturers of agricultural education in utilizing research findings for effective service delivery in higher institutions in Nigeria. The study the exposed twelve challenges were faced by lecturers of Agricultural Education in utilizing research findings. These factors include lack of competence by the lecturers to utilize research findings, inadequate funding to utilize research findings in service delivery, inadequate motivation by the school authority to the lecturers, Lack of sponsorship by the government, inadequate assistance from the donor agencies, lack of interest and commitment by the students to accept new knowledge in service delivery, lack of access to research findings by the lecturers of agricultural education, ambiguity of most of the research findings, lack of clear procedures on how to utilize research findings, most of the research findings are not feasible on practice and in employability, insufficient time on the school calendar to accommodate the utilization research findings and lack of instructional materials that matches the research findings in agricultural education.

Based on the empirical review above, most studies on factors influencing utilization of research findings have been carried out in other fields of endeavour but none in Agricultural Education. Thus, this seems to be the first investigation on factors influencing the utilization of research findings by Agricultural education lecturers in South-East Nigerian universities.

Theoretical Framework

Theory of Reasoned Action (ToRA) in Utilization of Research Findings

This study is suitably anchored on the Theory of Reasoned Action (ToRA) which was propounded by Martin Fishbein and Icek Ajzen in 1967. ToRA defines the link between human behavioural intentions (attitudes), belief and behaviour. It also explains how human behavioural intentions are created as a result of existing norms. It separates individual's behaviour from behavioural intentions (attitudes) and recognizes that there are situations (or factors) that limit the influence of attitude on behaviour. In other words, ToRA purports that there are certain factors or situations that can limit or affect one's action. For example, in the context of this study, if the attitude (behavioural intentions) of Agricultural Education lecturers is utilizing research findings in Universities but unfortunately they lack funds and competencies to do so, their lack of funds and competencies will prevent utilization of research findings. This theory supports the major problem of the study in that the poor utilization of research findings by lecturers of Agricultural Education observed by researchers could possibly be as a result of some limiting factors. Therefore, the implication of this theory is that for an improved lecturer's attitude of utilizing research findings in South-East Nigerian universities, factors capable of influencing utilization of research findings should be identified and properly positioned. Also, the researchers are of the opinion that the factors which could facilitate the utilization of research findings by lecturers in Universities should be put in place by the Government and University authorities.

Furthermore, ToRA adopts two constructs, namely attitudes and norms (people's reactions or expectations), to predict behavioural intent. It asserts that behavioural intent is generated by our attitudes and prevailing subjective norms (Fishbein & Ajzen, 1967). This means that, whenever our attitudes lead us into actions but the prevailing norms or people suggest we should do something different, both factors influence our behavioural intent. For example, in the context of this study, the attitude of an Agricultural Education lecturer may encourage him to utilizing research findings but others may think he is wasting his time especially when they feel it is not realistic due to the prevailing academic environment or policies, the lecturer might decide not to implement research findings due to the prevailing norms. The implication of this theory to the study is that there are some possible factors inherent in the working environment, human behaviour and policies which may influence Agricultural Education lecturer's attitude of utilizing research findings in South-Eastern Nigerian Universities. Hence, this study seeks to identify these possible factors.

Purpose of the Study

The purpose of this study was to identify the factors influencing the utilization of research findings by Agricultural education lecturers in South-East Nigerian Universities.

Specifically attempt to Identify:

- economic factors influencing the utilization of research findings by Agricultural education lecturers;
- environmental factors influencing the utilization of research findings by Agricultural education lecturers;
- lecturer-related factors influencing the utilization of research findings by Agricultural education lecturers;
- political factors influencing the utilization of research findings by Agricultural education lecturers;
- research-related factors influencing the utilization of research findings by Agricultural education lecturers

Research Questions

- What are the economic factors influencing the utilization of research findings by Agricultural education lecturers?
- What are the environmental factors influencing the utilization of research findings by Agricultural education lecturers?
- What are the lecturer-related factors influencing the utilization of research findings by Agricultural education lecturers?
- What are the political factors influencing the utilization of research findings by Agricultural education lecturers?
- What are the research-related factors influencing the utilization of research findings by Agricultural education lecturers?

Hypotheses

- There is no significant difference between the mean responses of male and female Agricultural education lecturers on the economic factors influencing the utilization of research findings.
- There is no significant difference between the mean responses of male and female Agricultural education lecturers on the environmental factors influencing the utilization of research findings.
- There is no significant difference between the mean responses of male and female Agricultural education lecturers on lecturer-related factors influencing the utilization of research findings.
- There is no significant difference between the mean responses of male and female Agricultural education lecturers on the political factors influencing the utilization of research findings.
- There is no significant difference between the mean responses of male and female Agricultural education lecturers on the research-related factors influencing the utilization of research findings

Methodology

A survey research design was adopted for the study. This design was suitable for this study because data was collected from respondents using questionnaire with the objective of generalizing the findings on the entire population. The area of study was in South-East Nigeria. It is one of the six geopolitical zones of Nigeria with 5 member states. These states that make up South-East Nigeria include: Abia, Anambra, Ebonyi, Enugu and Imo. The South East States have boundaries with Delta State by the West, Benue State and Cross-River State. The East, Akwa-Ibom State and River State by the South and Kogi State by the North. Abia State is located at longitude 7, 48^{0E} and latitude 5.53^{0N}, Anambra is located at longitude 7.30^{0N} and latitude 6.20^{0N}, Ebonyi is located at longitude 8.1^{0E} and latitude 6.20^{0N}, Enugu state is located at longitude 7.50^{0E} and latitude 6.33^{0N}, while Imo State is located at longitude 8.10^{0E} and latitude of 6.12^{0N}. The South East region have average longitude of 7.780^E and latitude of 6.120^N, South-East region cover an area of 29, 388km² and population of 24, 721, 850 person approximately 25,000,000 person. The choice of the area was borne out of the fact that there are 6 universities in South-East Nigeria that offer agricultural education programme with lecturers that could help to generate data for the study and the region is an educational advantaged area. Also, it was in this area that researchers identified the problem of the study.

The target population of the study was 56 persons made up of 34 male and 22 female lecturers of Agricultural Education in 6 public universities in South-East Nigeria. The study used census; hence there was no sampling. This is because the entire population of study was manageable by the researcher. A researcher-developed structured questionnaire titled: Factors Influencing the Utilization of Research Findings Questionnaire (FIURFQ) was used as instrument for data collection. The items of the instrument were adapted by researchers from review of related literatures (Lyons, 1966, Albert, Fretheim & Maïga, 2007, Dudding *et al*, 2009, Thompson, 1999, Waelti-Bolliger, 2011, Kimanthi, 2014, Mpelega, 2015, Mihaela *et al*. 2016, Asogwa *et al.*, 2016). The FIURFQ was structured on four point scale of Agreed, Strongly Agreed, Disagreed and Strongly Disagreed with corresponding values of 4, 3, 2, and 1 respectively. The questionnaire consisted 22 items and was grouped into 2 sections. The first section comprised the status of respondents (Male and Female). The second section comprised 3-clusters, Cluster-A comprised 7 items on economic factors influencing the utilization of research findings; cluster-B contained 4 items on environmental factors influencing the utilization of research finding, Cluster-C comprised 12 items on lecturer-related factors influencing the utilization of research findings, Cluster-D consisted 3-items on political factors influencing the utilization of research findings and Cluster-E comprised 12 items on research-related factors influencing the utilization of research findings.

The instrument for data collection was validated by 3 experts in Agricultural Education, all in Michael Okpara University of Agriculture, Umudike (MOUAU), Abia State. A pilot study was carried out with 10 lecturers of Agricultural education in Akwalbom State and the internal consistency of FIURFQ was determined at an acceptable reliability index of .87 using Cronbach's Alpha Coefficient method. The ethical clearance and approval to use Agricultural Education lecturers as respondents for this study was given by the director of Research and Ethics in each of the South-Eastern Nigerian public Universities through Heads of the Department of Agricultural Education. Consequently, fifty six copies of the PDUPQ were successfully administered by the researchers with the help of 5 research assistants in public universities in South-East Nigeria on voluntary basis. Data collected for the study were analyzed using descriptive statistic such as mean and standard deviation. Mean was used to answer research question while standard deviation was used to determine degree of responses. Independent Sample test was used

to test the 2 stated hypotheses at 0.05-level of significance. The following rules guided decisions reached in the study: questionnaire items with mean scores ≥ 2.50 on 4-point scale were described as “Agreed” while mean scores < 2.50 average on 4-point scale were described as “Disagreed”. In testing the hypotheses, *t-cal.* values less than ± 1.96 were taken as not significant (NS). Data collected for the study were organized using EXCEL and analyzed using SPSS -version 22 by the researchers. Ethical approval was sought from MOJAU’s Research and Ethics Committee. Also, answers to questions were voluntarily obtained from respondents, and while analysing data, their confidentiality were ensured.

Results

Results and analysis for data gathered from respondents are presented in figures (1-3) and tables (1-5) below.

Demography of Respondents

The frequency distribution on gender, lecturing experiences and educational qualifications of Agricultural Education lecturers in South-East Nigerian Universities are represented by figures 1, 2 and 3 respectively below.

Gender Distribution

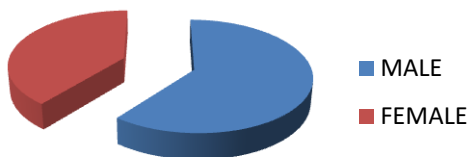


Figure 1: Pie Chart Showing the Frequency Distribution on Gender of the Respondents

The figure above is a pie chart showing the frequency distribution on gender of the respondents. It reveals that 60.71% [F; 32] of the total respondents for the study are males while 39.29% [F; 22] are females. This indicates that majority of Agricultural Education lecturers in South-Eastern Universities are male. Also, shows that the study x-rayed the perceptions of both male and female Agricultural Education lecturers.

Distribution on Years of Lecturing Experiences

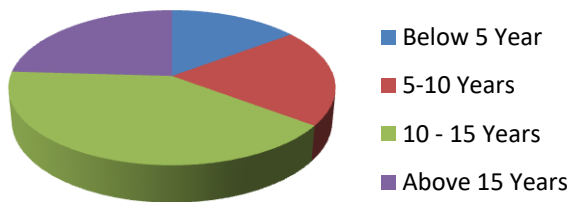


Figure 2: Pie Chart Showing the Frequency Distribution on Years of Experiences of the Respondents

Figure 2 is a pie chart showing the frequency distribution on years of experiences of the respondents. It indicates that 14.29% [F; 8] of the total respondents for the study have lecturing experiences below 5 years, 19.64% [F; 11] have experiences within 5 to 10 years, 39.29% [F; 22] of the respondents falls within 10-15 years lecturing experiences while 23.21% have lecturing experiences of over 15 years. Thus, it is clear that smmajority of the respondents for this study have had several years of lecturing experiences in Agricultural Education which authenticates the findings of this study.

Distribution on Educational Qualifications

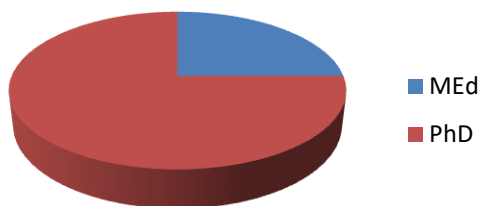


Figure 3: Pie Chart Showing the Frequency Distribution on Educational Qualifications of the Respondents

Figure 3 is a pie chart showing the frequency distribution on educational qualifications of respondents. It reveals that 78.57% [F; 44] of respondents holds PhD while 21.43% [F; 12] holds Med in Agricultural Education. This implies that the majority of Agricultural Education lecturers in South-East Nigerian Universities hold PhD.

Research Question 1: What are the economic factors influencing the utilization of research findings by Agricultural education lecturers?

Hypothesis 1: There is no significant difference between the mean responses of male and female Agricultural education lecturers on the economic factors influencing the utilization of research findings.

The results for research question 1 and hypothesis 1 are presented in Table 1 below

Table 1: Descriptive Statistics and Independent Sample Test of respondents on economic factors influencing the utilization of research findings by Agricultural education lecturers (N=56)

S/N	Item Statement	\bar{X}	S	t-cal.	Decision
1	Availability of funds for utilizing research findings	3.21	.039	.932	A, NS
2	Availability of resources for utilizing research findings	3.01	.624	1.004	A, NS
3	Cost of resources for utilizing research findings	3.69	.285	.589	A, NS
4	Level of promotion on utilizing research findings among lecturers in Universities	3.45	.208	.392	A, NS
5	Accessibility of research findings	3.23	.192	.008	A, NS
6	Availability of competent personnel for utilizing research findings	2.98	.924	.753	A, NS
7	Accountability in management of funds for research implementation	3.43	.106	.097	A, NS

\bar{X} = mean, S= standard deviation, A = Agreed, D =Disagreed, NS = Not Significant, n = number of respondents, t.cal is significant at 0.05 (± 1.96), df = 54

Data in Table 1 reveal that the mean scores of all the 7 items range from 3.01 to 3.69 which are above 2.50 on 4-point scale. This reveals that respondents agreed to the information represented by the items as economic factors influencing the utilization of research findings by lecturers of Agricultural education. The standard deviation of all items ranged from .039 to .924, this reveals that their responses were close to the mean and to one another in degrees of responses. The table also showed that the t-cal values of all the 7 items ranged from .008 to 1.004 which is less than ± 1.96 . This implies that there was no statistically significant difference between the mean responses of male and female lecturers of agricultural education on economic factors influencing the utilization of research findings by lecturers of Agricultural education. Therefore, we uphold the hypothesis of no significant difference between the mean responses of male and female lecturers of agricultural education on economic factors influencing the utilization of research findings by lecturers of Agricultural education.

Research Question 2: What are the environmental factors influencing the utilization of research findings by Agricultural education lecturers?

Hypothesis 2: There is no significant difference between the mean responses of male and female Agricultural education lecturers on the environmental factors influencing the utilization of research findings.

The results for research question 2 and hypothesis 2 are presented in Table 2 below

Table 2: Descriptive Statistics and Independent Sample Test of respondents on environmental factors influencing the utilization of research findings by lecturers of Agricultural education (N=56)

S/N	Item Statement	\bar{X}	S	t-cal.	Decision
1	Availability of facilities, machinery, equipment and materials for utilizing research findings	3.24	.564	1.161	A, NS
2	Availability of agricultural workshops/laboratories for utilizing research findings	3.01	.038	.094	A, NS
3	Nature of academic infrastructures for utilizing research findings	3.36	.656	.169	A, NS
4	Environmental hazards in utilizing research findings	2.97	.460	.056	A, NS

\bar{X} = mean, S = standard deviation, A = Agreed, D = Disagreed, NS = Not Significant, n = number of respondents, t.cal is significant at 0.05 (± 1.96), df = 54

Data in Table 2 show that the mean scores of all the 4 items range from 2.97 to 3.36 which are above 2.50 on 4-point scale. This means that respondents agreed to the information represented by the items as environmental factors influencing the utilization of research findings by lecturers of Agricultural education. Also, the standard deviation of all items ranged from .024 to .656 this reveals that their responses were close to the mean and to one another in degrees of responses. The table also showed that the t.cal. values of all items ranged from .056 to 1.161 which is less than ± 1.96 . This implies that there was no statistically significant difference between the mean responses of male and female lecturers of agricultural education on environmental factors influencing the utilization of research findings by lecturers of Agricultural education. Therefore, the hypothesis of no significant difference between the mean responses of male and female lecturers of agricultural education on environmental factors influencing the utilization of research findings by lecturers of Agricultural education is not rejected in this study.

Research Question 3: What are the lecturer-related factors influencing the utilization of research findings by Agricultural education lecturers?

Hypothesis 3: There is no significant difference between the mean responses of male and female Agricultural education lecturers on the lecturer-related factors influencing the utilization of research findings.

The results for research question 3 and hypothesis 3 are presented in Table 3 below

Table 3: Descriptive Statistics and Independent Sample Test of respondents on lecturer-related factors influencing the utilization of research findings by lecturers of Agricultural education (N=56)

S/N	Item Statement	\bar{X}	S	t.cal.	Decision
1	Level of lecturer's competence in Agricultural Education	3.18	.653	-.065	A, NS
4	Lecturers' attitude towards the use of research findings	2.65	.106	1.014	A, NS
5	Educational qualifications of lecturers	3.11	.370	.412	A, NS
6	Lecturer's level of experience in utilizing research findings	3.89	.244	.089	A, NS
7	Level of lecturer's research competence	3.02	.436	-1.238	A, NS
8	The interest of lecturer in utilizing research findings	3.14	.085	.085	A, NS
9	Statistical competence of lecturer	2.98	.015	.691	A, NS
10	Age of lecturer	2.43	.349	.047	D, NS
11	Level of lecturer's workload	3.61	.338	.403	A, NS
12	Practical capability of lecturers to transform research findings into operational terms	3.71	.426	.946	A, NS
13	Time available for lecturers	2.62	.352	.329	A, NS
14	Level of commitment by lecturers	3.17	.307	-1.111	A, NS

\bar{X} = mean, S = standard deviation, A = Agreed, D = Disagreed, NS = Not Significant, n = number of respondents, t.cal is significant at 0.05 (± 1.96), df = 54

Data in table 3 reveal that the mean scores of 13 out of the 14 items range from 2.59 to 3.34 which are above 2.50 on 4-point scale. This means that respondents agreed to the information represented by the 13 items as lecturer-related factors influencing the utilization of research findings by lecturers of Agricultural education. The mean score of 1 out of the 14 items is 2.43, which is below 2.50 on 4-point scale. This implies that respondents disagreed to the information represented by the item as lecturer-related factors influencing the utilization of research findings by lecturers of Agricultural education. More so, the standard deviation of all items ranged from .015 to .653, this reveals that their responses were close to the mean and to one another in degrees of responses. The table also showed that the t.cal. values of all items ranged from -.065 to 1.014 which is less than ± 1.96 . This implies that there was no statistically significant difference between the mean responses of male and female lecturers of agricultural education on lecturer-related factors influencing the utilization of research findings by lecturers of Agricultural education. Therefore, the hypothesis of no significant difference between the mean responses of male and female lecturers of agricultural education on lecturer-related factors influencing the utilization of research findings by lecturers of Agricultural education is not rejected in this study.

Research Question 4: What are the lecturer-related factors influencing the utilization of research findings by Agricultural education lecturers?

Hypothesis 4: There is no significant difference between the mean responses of male and female Agricultural education lecturers on the lecturer-related factors influencing the utilization of research findings.

The results for research question 4 and hypothesis 4 are presented in Table 4 below

Table 4: Descriptive Statistics and Independent Sample Test of respondents on political factors influencing the utilization of research findings by lecturers of Agricultural education (N=56)

S/N	Item Statement	\bar{X}	S	t-cal.	Decision
1	Government's attitude towards implementing research findings	2.99	.067	.099	A, NS
2	Attitude of University administrators towards implementing research findings	3.14	.111	.042	A, NS
3	Priority of research utilization in policy issues	3.53	.075	.128	A, NS

\bar{X} = mean, S = standard deviation, A = Agreed, D = Disagreed, NS = Not Significant, n = number of respondents, t.cal is significant at 0.05 (± 1.96), df = 54

Data in Table 4 indicate that the mean scores of all the 3 items range from 2.99 to 3.53 which are above 2.50 on 4-point scale. This indicates that respondents agreed to the information represented by the items as political factors influencing the utilization of research findings by lecturers of Agricultural education. More so, the standard deviation of all items ranged from .067 to .111, this reveals that their responses were close to the mean and to one another in degrees of responses. In addition, the table also showed that the t-cal. values of all items ranged from .042 to .128 which is below ± 1.96 . This reveals that there was no statistically significant difference between the mean responses of male and female lecturers of agricultural education on political factors influencing the utilization of research findings by lecturers of Agricultural education. Therefore, the hypothesis of no significant difference between the mean responses of male and female lecturers of agricultural education on political factors influencing the utilization of research findings by lecturers of Agricultural education is not rejected in this study.

Research Question 5: What are the research-related factors influencing the utilization of research findings by Agricultural education lecturers?

Hypothesis 5: There is no significant difference between the mean responses of male and female Agricultural education lecturers on the research-related factors influencing the utilization of research findings.

The results for research question 5 and hypothesis 5 are presented in Table 5 below

Table 5: Descriptive Statistics and Independent Sample Test of respondents on research-related factors influencing the utilization of research findings by lecturers of Agricultural education (N= 56)

S/N	Item Statement	\bar{X}	S	t-cal.	Decision
1	Relevance of research findings	2.68	.598	.250	A, NS
2	Currency of research findings	3.03	.504	.301	A, NS
3	Quality of research findings	3.01	.548	1.199	A, NS
4	Trustworthiness of research findings	3.17	.642	1.020	A, NS
5	Nature or form of research findings	2.65	.533	.861	A, NS
6	Authority of respondents in research	2.94	.036	.142	A, NS
7	Adaptability of research findings to local environment	3.26	.106	.116	A, NS
8	Practicability of research findings	3.02	.502	.106	A, NS
9	Competency of research method used	2.64	.138	.321	A, NS
10	Compatibility of research findings with long accepted practices	3.39	.375	.020	A, NS
11	Sustainability of research findings	3.28	.508	.086	A, NS
12	Context of the use of research findings	3.20	.605	.356	A, NS

\bar{X} = mean, S = standard deviation, A = Agreed, D = Disagreed, NS = Not Significant, n = number of respondents, t.cal is significant at 0.05 (± 1.96), df = 54

Data in Table 5 reveal that the mean scores of all the 12 items range from 2.64 to 3.39 which are above 2.50 on 4-point scale. This indicates that respondents agreed to the information represented by the items as research-related factors influencing the utilization of research findings by lecturers of Agricultural education. More so, the standard deviation of all items ranged from .036 to .642, this reveals that their responses were close to the mean and to one another in degrees of responses. The table also showed that the t-cal. values of all items ranged from .020 to 1.199 which is below ± 1.96 . This reveals that there was no statistically significant difference between the mean responses of male and female lecturers of agricultural education on research-related factors influencing the utilization of research findings by lecturers of Agricultural education. Therefore, the hypothesis of no significant difference between the mean responses of male and female lecturers of agricultural education on research-related factors influencing the utilization of research findings by lecturers of Agricultural education is not rejected in this study.

Discussion of the Findings of the Study

The study found that availability of funds, competent personnel and resources for utilizing research findings, cost of resources for utilizing research findings, accessibility of research findings and level of promotion on utilizing research findings among lecturers are economic factors influencing the utilization of research findings by lecturers of agricultural education in South-Eastern Universities. In line with the findings of this study, Anumaka (2013) found that lack of advocacy or promotion of current research

findings to the public for reference purposes and quality decision making is one of the factors influencing the utilization of research findings in universities. Fretheim and Maïga (2007) in a study found that accountability and research information accessibility also influences the utilization of research findings. Also, Lyons (1966) identified cost as a factor influencing the utilization of research findings. Asogwa *et al.* (2016) found that inadequate funding to utilize research findings in service delivery and lack of access to research findings by the lecturers of agricultural education are challenges in utilizing research findings.

More so, the study found that availability of facilities, machinery, equipment, materials, agricultural workshops/laboratories for utilizing research finding, the nature of academic infrastructures for utilizing research findings and environmental hazards in utilizing research findings are some of the environmental factors influencing the utilization of research findings by Agricultural Education lecturers in South-Eastern Universities. In support of the findings of this study, Asogwa *et al.* (2016) found that lack of instructional materials that matches the research findings in agricultural education affect the utilization of research findings. Notably, there seems to be dearth of literatures addressing some environmental factors that may influence the utilization of research findings, hence researchers are of the opinion that more studies should be carried out on this area.

In addition, the findings of the study on lecturer-related factors influencing the utilization of research findings by lecturers of Agricultural Education in South-Eastern Universities include level of lecturer's competence in Agricultural Education, lecturers' attitude towards the use of research findings, educational qualifications of lecturers, lecturer's level of experience in utilizing research findings, level of lecturer's research competence, interest of lecturer in utilizing research findings, statistical competence of lecture, level of lecturer's workload, practical capability of lecturers to transform research findings into operational terms, time available for lecturers and level of commitment. Some of these findings are in agreement with the findings of other empirical studies. Specifically, Lyons (1966) in a study revealed that engineering capability to transform research findings into operational terms is a factor affecting utilization of research findings. Other factors according to the findings of Anumaka (2014) are workload and personal interest of the lecturer. Mpelega (2015) identified that research competence, level of educational exposure, number of research related workshops attended, perceptions, attitude and research related courses taken can influence the utilization of research findings. More so, Bryar *et al* (2003) found that lack of enough time to read and apply research is one of the barriers to research implementation. Asogwa *et al.* (2016) identified lack of competence by lecturers of Agricultural Education as one of the challenges affecting research utilization.

The study also found that attitude government and University authorities towards implementing research findings and priority of research utilization in policy issues are some of the political factors influencing the utilization of research findings by lecturers of Agricultural Education in South-Eastern Universities. In agreement with the findings of this study, Fretheim and Maïga (2007) found that priority of research in the policy process influences utilization of research findings. More so, Asogwa *et al.* (2016) pointed out that lack of government support is one of the challenges to utilizing research findings by lecturers of Agricultural Education. Bryar *et al* (2003) stated that lack of support by managers is a barrier to research implementation. In the context of this study, researchers are of the opinion that attitude of University managers or authorities towards research implementation can influence utilization of research findings.

Also, the findings of the study revealed that relevance, currency, quality, trustworthiness, nature or form, adaptability, practicability, compatibility with long accepted practice, sustainability of research findings, context of use of research findings and competency of research method used are research-related factors influencing the utilization of research findings by lecturers of Agricultural Education in South-Eastern Universities. In agreement with the findings of this study, Lyons (1966) found that compatibility of research findings with long accepted practices are some factors affecting utilization of research findings. Anumaka (2014) in a study revealed that lack of trust in the quality of research and findings of research not developed in a usable form influence utilization of research findings. More so, Love in Anumaka (2014) found that the nature of research findings, process of its production and context of use are some factors affecting utilization of research findings in universities. Fretheim and Maïga (2007) revealed that trust in research, relevance of the research, authority of respondents and competency in research methods are factors influencing research utilization. Asogwa *et al.* (2016) in a study found that ambiguity of most of the research findings and lack of clear procedures on how to utilize research findings are challenges to

utilizing research findings by Agricultural Education lecturers. More so, the study found that there was no significant difference between male and female lecturers of agricultural education on economic, environmental, lecturer-related, political and research-related factors influencing the utilization of research findings.

Conclusion

Utilization of Agricultural Education research findings by lecturers of Agricultural education would ensure qualitative and updated educational and agricultural practices in South-Eastern Nigerian Universities. It will also, enable lecturers to integrate recent and trending developments in the field of Agricultural education during instructions to promote learning and increased academic performance of students. However there are factors which may influence the utilization of research findings by Agricultural Education lecturers. These could be grouped into economic, environmental, lecturer-related, political and research-related factors. Based on the findings of the study, availability of funds, competent personnel and resources for utilizing research findings, cost of resources for utilizing research findings, accessibility of research findings and level of promotion on utilizing research findings among lecturers are economic factors influencing the utilization of research findings by lecturers of agricultural education in South-Eastern Universities. Furthermore, the environmental factors influencing the utilization of research findings by Agricultural Education lecturers in South-Eastern Universities include availability of facilities, machinery, equipment, materials, agricultural workshops/laboratories for utilizing research finding, the nature of academic infrastructures for utilizing research findings and environmental hazards in utilizing research findings. In addition, lecturer-related factors influencing the utilization of research findings by lecturers of Agricultural Education in South-Eastern Universities include level of lecturer's competence in Agricultural Education, lecturers' attitude towards the use of research findings, educational qualifications of lecturers, lecturer's level of experience in utilizing research findings, level of lecturer's research competence, interest of lecturer in utilizing research findings, statistical competence of lecture, level of lecturer's workload, practical capability of lecturers to transform research findings into operational terms, time available for lecturers and level of commitment. The study also found that attitude government and University authorities towards implementing research findings and priority of research utilization in policy issues are some of the political factors influencing the utilization of research findings by lecturers of Agricultural Education in South-Eastern Universities. Furthermore, relevance, currency, quality, trustworthiness, nature or form, adaptability, practicability, compatibility with long accepted practice, sustainability of research findings, context of use of research findings and competency of research method used are research-related factors influencing the utilization of research findings by lecturers of Agricultural Education in South-Eastern Universities.

Recommendations

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

- The Federal Ministry of Education of Nigeria and University Administrators should ensure the establishment of enabling academic environment and policies that would influence lecturers in utilizing research findings in South-East Nigerian Universities.
- Adequate fund and facilities should be provided by the Federal Ministry of Education of Nigeria and School Administrators to enable lecturers utilize research findings to promote agricultural and educational practices in South-East Nigerian Universities. .
- Agricultural Education lecturers should improved their research competencies to enable them utilizing research findings for quality service delivery in South-East Nigerian Universities.
- The government through the Federal Ministry of Education of Nigeria and University Administrators should promote the utilization of research findings among lecturers for updated and sound qualitative education in South-East Nigerian Universities.

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