

## Challenges Facing Effective Utilization of Electronic Information Databases (Eids) By Students of Agricultural Economics and Extension, Michael Okpara University of Agriculture, Umudike

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### **Abstract:**

**Purpose:** This study was carried out to investigate challenges facing effective utilization of electronic information databases (EIDs) by students of Agricultural Economics and Extension, Michael Okpara University of Agriculture, Umudike, Abia State.

**Design/Methodology/Approach:** The descriptive survey research design was adopted for this study. Two objectives and two research questions were formulated to guide the study. A sample size of 237 students was obtained using Taro - Yemen. Instruments for data collection included a well-structured questionnaire. Two hundred and thirty copies of questionnaire were distributed to the users of the library with a return rate of 91.6%. The study used frequency counts, mean and standard deviation for data analysis.

**Findings:** The results revealed that inadequate power supply, lack of communication and promoting of database to student by librarians and poor network/internet connectivity, was identified as key factors militating against the effective use of the electronic information database.

**Implication:** Suggested strategies to the challenges facing effective utilization of electronic information database include provision of adequate/constant electricity and access to electronic database; more networked computers should be purchased by the university; librarians should insist on regular updates on the databases; first year students should be introduced to ICTs and information literacy; University Libraries should improve on awareness campaign of e-database; Lecturers should insist on students using e-resources for course work.

**Originality/Value:** It was recommended that there should be provision of adequate/ constant electricity and access to electronic database by government, school authorities and individuals; more networked computers should be purchased by the university; Librarians should insist on regular updates on database.

**Keywords:** Agricultural Economics and Extension, Challenges, Electronic Information Databases, Strategies, Students, University Library

**Paper type:** Empirical research

## INTRODUCTION

Libraries are agents of educational, social and economic development. The functions of libraries include; to acquire, process, store, preserve and make available current and relevant print and electronic materials that will meet the information need of user at appropriate time. Pertti and Sanna cited in Angello (2010) have reported that the accessibility and availability of information has increased remarkably due to the digitization of information.

An electronic information database according to Abubakar and Akor (2017) is an organized collection of information of a particular subject or multidisciplinary subjects. Uzuegbu et al., (2012) defined electronic information databases as specialized records of related published information documents which are not available on Google or other common search engines, especially in a full text. Electronic databases are collection of electronic information sources (e-journals or e-books) by publishers from various fields or disciplines and that some of these data bases are

provided free of charge to libraries in developing countries by their publishers or vendors, while others require some fees for subscription (Ani et al., 2008). Bankole et al., (2015) posits that electronic information resources consists of information resources provided in electronic formats such as internet, CDROM databases, e-books, e-journals, Online database, Online Public Access Catalogues, and other computer –based electronic networks.

Burns as cited in Abu, (2005), view utilization as concerned with discovering, articulating, understanding, influencing, and when appropriate, the elimination or at least minimization of those obstacles between a user and his information goals. Utilization of electronic information database implies making use of the electronic information database.

Agricultural economics according to Ford (2008) is an applied field of economics concerned with the application of economic theory in optimizing the production and distribution of food and fiber. It is the study of the allocation, distribution, and utilization of the resources used, along with the commodities produced, by farming. Agricultural economics plays a role in the economics of development, for a continuous level of farm surplus is one of the wellsprings of technological and commercial growth (Johnson, 2019).

Students all over the world use various databases, journals and other e-resources to search and use the latest information in their respective fields and related ones. An agricultural student is not left out as he tends to seek new knowledge to support and strengthen the existing systems, and to establish new ones by applying scientific and usually experimental methods. It is in recognition of the importance of electronic information for research, libraries often subscribe to international organizations that produce such resources or solicit for support from donor organizations like the; Food and Agriculture Organization (FAO), Technical Centre for Agricultural and rural Cooperation (CTA) and funding agencies to acquire electronic information databases. Users of online peer reviewed journals online are required to register with the producing organization and usage is password protected. Examples of online resources provided for the agricultural students that facilitate access through the use of passwords is Access to

Global Online Research in Agriculture (AGORA), African Journals Online (AJOL) and Health Internetwork Access to Research Initiative (HINARI) with which participating institutions are required to register. International Agencies like CTA, CABI, and FAO, etc donate CD-ROM, to libraries and information centers. Individual users can also subscribe to publishers sites and obtain full-text or abstract to journal articles. It is on this premise that this paper investigates the challenges to the effective utilization of available electronic information databases by students of agricultural economics and extension, Michael Okpara University of Agriculture, Umudike.

#### **STATEMENT OF THE PROBLEM**

University libraries today are equipped with electronic information resources such as online databases. it is one thing for an academic library to acquire and automate its services, it is another for the users to be sufficiently well-informed of the existence of these electronic information databases, have easy access to them and make effective use of them so as to retrieve information.

The absence of proper utilization of electronic databases in this information age may very well result in intellectual and possibly economic poverty. It is on this premise that this paper investigates the challenges to the effective utilization of available electronic information databases by students of agricultural economics and extension, Michael Okpara University of Agriculture, Umudike.

#### **RESEARCH QUESTIONS**

The following research questions guided the study

1. What are the challenges to the effective utilization of available electronic information databases by student of Agricultural Economics and Extension?
2. What strategies could enhance the utilization of electronic information databases by the students?

#### **REVIEW OF LITERATURE**

It is pertinent to note that this research work hinges on the Technology Acceptance Model (TAM). It was developed by Davis in the year 1993. The purpose of TAM is to predict user acceptance of technology by using two technology related factors, perceived usefulness and perceived ease of use. Perceived usefulness (U) in TAM is the extent to which a user believes that the use of a system will

enhance his or her performance. Perceived ease of use (EOU) is the extent to which a user believes that using the system will be effortless. According to TAM, both U and EOU significantly influence a person's attitude towards using the system (A). Behavioral intentions (BI) to use the system is determined by A and U. One of the main differences between TAM and TRA is that perceived usefulness directly influences the intention to use a technology. Beliefs do not play any role in the intention to use a system. Davis et al. in Tofi et al., (2019) explained that in a student situation, a students' intention to use a system will be strictly based on the impact of the system on his or her school work, irrespective of his or her attitude towards the system. In other words, a student may dislike a system but may use it based on perceived increase in his or her school work. This study adopts TAM as a theoretical framework because it focuses on characteristics that influence individual decisions in adopting a technology, such as compatibility and perceived complexity and the strategies used to market the technology to specific groups and organizations.

Several studies have been carried out on the challenges to the effective utilization of available electronic information databases. In a research carried out by Kumar, et al., (2012) on the use and awareness of the Internet at the University of Agricultural Sciences, Bangalore, India. The study identified factors such as Internet usage, awareness about Internet usage, awareness about Internet services, favorite search engines as constraints faced by the users in surfing the internet. Baro, et al., (2011) in a study on the challenges that affect students' use of electronic databases in Delta State University in Nigeria, identified lack of training in information literacy skills and ineffective user education programs in the medical libraries and medical schools to equip the students with the necessary skills to use the medical databases and other electronic information resources. Ahmed (2013) also found that students identified limited access to computers and slow download speed as major problems. Echezona et al., (2010), in their study argued that the poor nature of Internet speed infringe on the usefulness of the connections and is a real barrier to using e-resources.

Mohammed (2017) carried out a study on the availability and utilization of databases among agricultural scientists in North-eastern Nigeria and reported that enhancement of electronic information databases is an essential concern. Where 146(75%) respondents agreed that

improvement in the Knowledge exchange and training determined the success in the utilization of electronic resources for research, as well as eliminating the problems of geographical location in the transfer of information. 143 (73%) respondents indicated that adequate power supply provide easy accessibility of electronic database. Another important usefulness of electronic information databases as indicated by 133 (68%) respondents is the fact that use of electronic resources helps in providing adequate assistance to database information other strategy include; Provision of adequate/constant electricity and access to electronic resource; training of programmers; librarians and students to ensure effective utilization of electronic resources; eliminating the problem of geographical location in the transfer of information; Librarians should be trained to know how to work and interact well with students; First year students should be introduced to ICTs and information literacy. Lecturers should insist on students using e-resources for course work. The University should introduce e-resources fee to be paid by students

#### **METHODOLOGY**

This study adopted the survey design since it will help us understand the causal association connecting the identified variables. The population of this study consists of all the students (585) in the department. The sample size for the study is 237 which are determined using Taro Yemen. However 237 questionnaires were sent but 217 returned. Hence the percentage returned is 91.6% showing reasonable high percentage.

The instrument for data collection is a self-structured questionnaire. The instrument is titled Challenges to the Effective Utilization of Electronic Information Database Questionnaire (CEUEIDQ). It comprises of a 15 – item questionnaire divided into two clusters and each cluster contains relevant question items that addressed each of the two research questions. The instrument was validated through expert opinion and the completed questionnaires were analyzed for reliability using Cronbach Alpha coefficient. Eventually, the reliability statistic of 0.920 was established for the whole set of scores. Data are analyzed using SPSS.

#### **Results**

This study has investigated challenges to the effective utilization of available electronic information databases by students of agricultural economics and extension, Michael Okpara University of Agriculture, Umudike.

**Research Question 1:** What challenges do you encounter in the use of electronic database?

**Table 1: Mean Ratings and Standard Deviation on Challenges Faced in the Use of Electronic Database.**

S/No	Challenges	SA	A	D	SD	Mean	STD	Decision
1	Inadequate power supply	90	38	39	7	3.21	0.93	Accepted
2	Inadequate promotion of database to users by Librarian	69	73	24	8	3.17	0.83	Accepted
3	Poornetwork/internet connectivity	76	59	28	11	3.15	0.91	Accepted
4	Low level of IT knowledge to effectively utilize the services	52	55	48	19	2.8	0.99	Accepted
5	Irregular updates of software.	49	60	43	22	2.78	0.99	Accepted
6	Time consuming and wastes a lot of time due to Limited access	37	63	48	26	2.64	0.98	Accepted
7	Insufficient computers	31	47	59	37	2.41	1.01	Accepted
	<b>Cluster Mean</b>					<b>2.88</b>	<b>0.95</b>	<b>Accepted</b>

**Bar Chart Showing Mean Ratings and Standard Deviation on Challenges Faced in the Use of Electronic Database.**

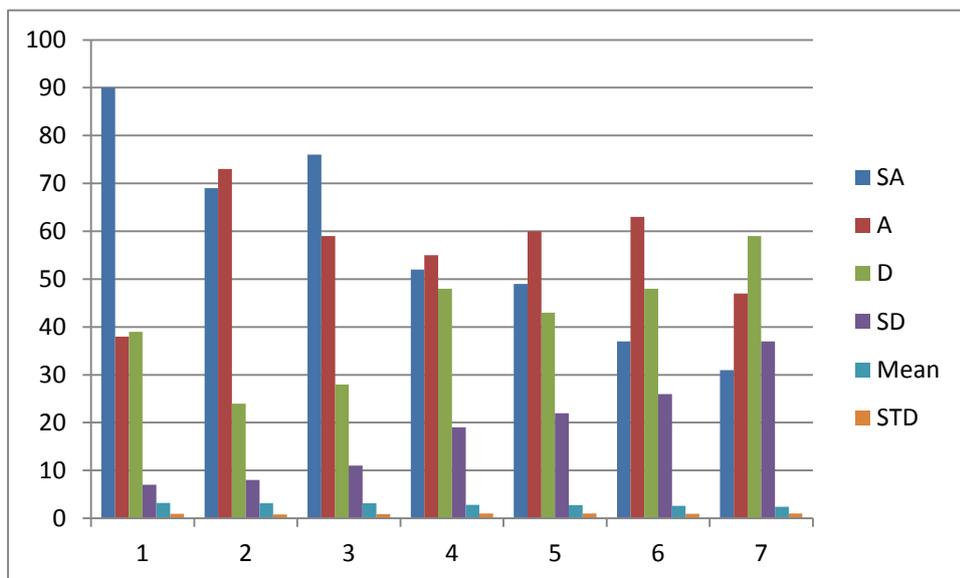


Table 1 shows the challenges faced by students of Agricultural Economics and Extension, Michael Okpara University of Agriculture, Umudike on the utilization of available electronic information database. As shown in this table, respondents ranked inadequate power supply as the most choice.

The cluster mean and standard deviation are 2.88 and 0.95 respectively.

**Research Question 2:** What strategies could enhance the utilization of electronic information databases by the students?

**Table 2: Mean Ratings and Standard Deviation on Strategies to Enhance the Utilization of the Use of Electronic Information Database.**

S/No	Strategies	SA	A	D	SD	Mean	STD	Decision
1	Provision of adequate/constant electricity and access to electronic database	152	22	-	-	3.87	0.33	Accepted
2	More networked computers should be purchased by the university	150	24	-	-	3.86	0.34	Accepted
3	Librarians should insist on regular updates on the databases	147	27	-	-	3.84	0.36	Accepted
4	First year students should be introduced to ICTs and information literacy	157	17	17	-	3.73	0.61	Accepted
5	Librarians should be trained to know how to work with the students	137	27	7	3	3.71	0.62	Accepted
6	University Libraries should improve on awareness campaign of e-database	107	60	7	-	3.57	0.57	Accepted
7	Lecturers should insist on students using e-resources for course work	50	60	18	46	2.66	1.15	Accepted
8	The university should introduce e-resources fee to be paid by student	35	15	19	105	1.89	1.22	Accepted
<b>Cluster Mean</b>						<b>3.39</b>	<b>0.65</b>	<b>Accepted</b>

**Bar Chart Showing Mean Ratings and Standard Deviation on Strategies to Enhance the Utilization of the Use of Electronic Information Database.**

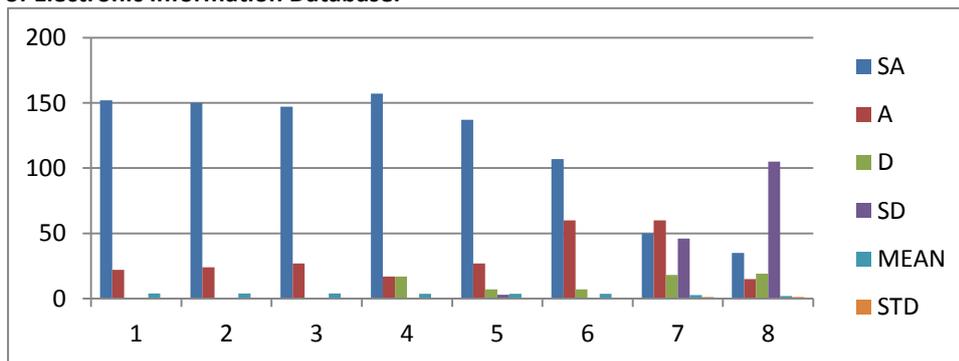


Table 2 shows the strategies to enhance the utilization of the use of electronic information database by students of Agricultural Economics and Extension, Michael Okpara University of Agriculture, Umudike. As shown in this table, respondents ranked provision of adequate/constant electricity and access to electronic database as the most choice. The cluster mean and standard deviation are 3.39 and 0.65 respectively.

#### DISCUSSION OF FINDINGS

After the analysis, the first finding reveals challenges facing the utilization of electronic information databases amongst undergraduate of agricultural economics and extension which include; time consuming and waste a lot of time due to limited access, low level of IT knowledge to effectively utilize the service, inadequate communication and promoting of database to user by librarian, inadequate power supply, poor network/internet connectivity and irregular updates

of software. The findings of the study support the work of Baro (2011) who identified lack of training in information literacy skills and ineffective user education programs to equip the students with the necessary skills to use electronic information resources. In the same vein, Ahmed (2013) who identified limited access to computers and slow download speed as major problems.

The second finding of this study reveals strategies to improve the utilization of electronic information databases amongst undergraduate of agricultural economics and extension. Strategies to improve the utilization of electronic information database from the results include provision of adequate/constant electricity and access to electronic database; more networked computers should be purchased by the university; librarians should insist on regular updates on the databases; first year students should be introduced to ICTs and information literacy; University Libraries should

improve on awareness campaign of e-database; Lecturers should insist on students using e-resources for course work. The introduction of e-resource fee to be paid by student as a strategy to improve the utilization of electronic information databases amongst undergraduate of agricultural economics and extension was rejected. The findings of this study supports Mohammed (2017) whose findings identify provision of adequate/constant electricity and access to electronic resources, training of programmers, librarians and students to ensure effective utilization of electronic resources as strategy to improve the utilization of electronic information databases.

#### CONCLUSION

Based on the results of this study, it has been established that students' encounter lots of challenges in use of electronic information database which has hindered their use of the available databases; Inadequate power supply, lack of communication and promoting of database to student by librarians and poor network/internet connectivity, were identified as key factors militating against the effective use of the electronic information database.

Strategies suggested to improve utilization of available electronic information database includes provision of adequate/constant electricity and access to electronic database; more networked computers should be purchased by the university; librarians should insist on regular updates on the databases; first year students should be introduced to ICTs and information literacy; University Libraries should improve on awareness campaign of e-database; Lecturers should insist on students using e-resources for course work.

#### RECOMMENDATION

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

1. There should be provision of adequate/constant electricity and access to electronic database by government, school authorities and individuals.
2. More networked computers should be purchased by the university.
3. Librarians should insist on regular updates on database

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