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**AVAILABILITY AND UTILISATION OF SUBSCRIBED DATABASES AS CORRELATES OF AGRICULTURAL POSTGRADUATE STUDENTS ACADEMIC ACHIEVEMENT IN FEDERAL UNIVERSITY LIBRARIES IN NORTH- CENTRAL NIGERIA**

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**ABSTRACT**

The aim of this study was to investigate availability and utilisation of subscribed databases as correlates of agricultural postgraduate students' academic achievement in federal universities libraries in north- central Nigeria. The study formulated two objectives and some responding research questions as well. It adopted a descriptive survey design and target population of 2463 agricultural postgraduate students from the 4 Federal Universities in North-Central Nigeria offering postgraduate studies in agriculture out of six. Questionnaire was the instrument used for data collection. Three hundred and thirty-five (335) copies of the questionnaires were distributed and three hundred and seventeen (317) copies of questionnaires were returned; representing a return rate of 95%. The data collected were analyzed using Descriptive statistics such as frequency count, mean and standard deviation. The decision rule for research questions one through five was based on whether the mean score value was lower than or equal to and above the criterion mean value of 2.50 for either rejection or acceptance. The findings of the study revealed that the respondents agreed that academic achievement of agricultural postgraduate students are determined by quiz, test, examination performance, seminar presentation, individual and group presentations The evaluation of the availability of subscribed databases is pertinent to the academic achievement of agricultural postgraduate students. It is important for academic libraries to subscribe to scholarly databases. The study recommended that there is need to put in place strategies that will increase the trust in the electronic information resources among the postgraduate students to improve its use. Also, effort should be made to acquire resources from reputable publishers; this will further build the trust in the resources and consequently increase the usage.

**Keywords:** University Libraries, online database, postgraduate students, availability, utilisation

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## **INTRODUCTION**

University is an institution of higher learning and research which awards academic degrees in various academic disciplines. Universities typically offer both undergraduate and postgraduate programs. It is important to mention that the university provides some of the following functions; assign courses of study, conduct examinations and award degrees and other qualifications; promote and facilitate research; collaborate with educational, business, professional, trade union, cultural, artistic, community and other interests, both inside and outside the Nation, to further the objectives of the university; maintain, manage and administer, the property, money, assets and rights of the university. However, the university cannot exit or perform effectively without the presence or help of the university library.

University libraries are termed as treasures of knowledge that house information available in a variety of documentary forms such as: journal articles, research and technical reports, conference papers, standards, patents, dissertations, survey data etc. Among the materials are journal articles, proceedings, serials, dissertations, research papers, books, magazines film and audio/video recording plus the data stored in computer as well as in compact disks. Availability and utilisation of electronic information resources is key to the success of students' academic activities most especially in the areas of research in any institution and the university library plays the central role in making information available and accessible. Verma (2015) in his study explored the role of academic library to achieve academic excellence in academic institution and pointed out that academic library has to play very important role because academic institutions are incomplete without a good library. Nevertheless, the main purpose of the university library is to provide access to all sources of information for varying needs. The university library supports course curriculum and assists researchers to extend their research work and create new knowledge successfully. The entire academic and research process is fully dependent on library network. When Postgraduate students and researchers needed reliable information for their academic performance, most especially within the framework of tertiary institution, they often turned to university libraries. University library helps to impact positively on the academic achievement of both undergraduates and postgraduates students. It supports various educational programmes, develops students' skills in locating and using information. The academic library provides students with lifelong learning skills and develops their interest and creativity. Several university libraries subscribed to several online databases which are made available and accessible to lecturers, and students of the respective universities.

Online databases are used in the library by lecturers and students to provide access to enormous academic information which is very crucial to their overall academic performance and their productivity. Online database provide a platform for postgraduate students to search for scholarly information which consists of several e-

books, e-journals, e-dissertations and theses which are multi-disciplinary or in a particular discipline and can be accessed online. According to Olasore & Adekunmisi (2015) online databases are materials that are provided online and can be accessed and used electronically. Electronic information resources consist of online information resources such as the e-books, e-journals, e-reports, e-magazines, e-dictionaries, e-archives, e-conference papers, e-monographs, e-newspapers and other e-resources that are uploaded in a website, accessed by a computer connected to Internet and used either by printing the resources or online directly for various activities such as teaching, learning, research and community development. Also these e-resources can be in another form in academic libraries which are; e-databases, e-journals, e-data archives, e-manuscripts, e-maps, e-books, e-magazines, e-theses, WWW, e-newspapers, e-research reports, and e-bibliographic databases (Ankrah & Atuase, 2018). The major benefit of electronic resources in the university library besides ease of access to the needed information is that access can be done remotely by academic staff and postgraduate students in their homes without physical visit to the library which under normal circumstances would improve their academic achievement. Thus, electronic resources promote efficiency in dissemination of information for research purposes in universities (Thanuskodi, 2012). Electronic resources are more of tools to assist in conducting research, away of scanning a lot of materials quickly.

These online databases are categorised into two: fee and non-fee based. The fee based databases are those that most academic and research libraries purchase through subscription in order to provide to students, lecturers and administrative staff with online information resources while the non-fee based databases are those provided online after one year of publication for free or made free immediately after publication online.

Online databases are usually subscribed to by universities in order to support the research works among graduates and most especially postgraduate students (Sinh & Nhung, 2012). Due to the importance of online databases, the universities subscribed to a number of online databases which include: EBSCO Host, Science Direct, AGORA, DOAJ, MEDLINE, HINARI, AGRICOLA, ProQuest, Science Direct, Emerald, Elsevier and a host of others which can be accessed through computer systems in the library and on the Library website.

In light of this, it is pertinent to understand and find out the availability and utilisation of these subscribed databases as important resources among postgraduate agricultural students and lecturers. As pointed out by Aina (2014) that as universities spend significant portion of their annual budget on subscription to these databases, it is only proper and economical that these databases are optimally utilised to contribute to the academic achievement of students and faculty and to obtain value for huge allocation for subscription. However, utilisation of the subscribed databases by postgraduate students will only be possible with the provision of necessary infrastructure for easy accessibility.

These subscribed database or resources deepen the availability of online resources and extend the boundaries of academic research.

Academic achievement of students in various universities is of paramount importance to students. Academic achievement is the attainment obtained from the academic performance of university students both the undergraduate and postgraduates. Academic achievement of postgraduate students could be affected by deepen on the availability, access and utilisation of subscribed databases. Furthermore, subscribed databases have the capacity of improving and impacting on the academic performance of students as argued by Adeniran (2013). It is important to note that libraries play an important role by providing relevant, timely and up-to-date online databases to assist in the research activities of postgraduate students.

Postgraduate students' academic achievement is often measured by their Cumulative Grade Point Average (CGPA), continues assessment (CA), examination and much of other factors. There have been many attempts to address the problem of low academic achievement and some factors have been identified in explaining academic achievement. Among the numerous variables researched, are demographic status, intelligence, behavioural characteristics, psychological factors, namely, attitudes, self-esteem, self-efficacy, and self-concept, have been used to explain academic achievement (JilardiDamavandi, *et al.*, 2011). All these could be subsumed under three (3) type of quotients which are: intelligent quotient, adversity quotient and emotional quotient. To AL-Mutairi (2011), students' academic achievements are influenced by numerous factors applicable from one context to another. The broad dimensions of such factors include: socioeconomic status; academic institutional arrangements and individual student attributes. For instance, Kang'ahi et al. (2012) found that teaching styles used by lecturers in delivering their lessons have a positive influence on learners' academic achievements.

Postgraduate student achievement refers to the extent to which a learner has attained their short or long-term educational goals. Individual differences in academic performance are strongly correlated with differences in personality and intelligence. As well, students' levels of self-efficacy, self-control and motivation also impact levels of achievement. Nigerian postgraduate student may desire to move up the hierarchy to attain the level of self-actualization but this progress may be hindered by difficulties which could hamper their goals. The postgraduate student needs self-fulfilment, development, and use of potentials. According to Akomolafe & Olorunfemi-Olabisi (2011) stakeholders in Nigerian educational system ranging from; parents, guardians, lecturers, family members, counsellors, and many others, are so much concerned about students' achievements and academic standard. Reason for this is probably because success in education is highly instrumental to the development of a nation. Apart from differences in ability which are not easy to control, the academic libraries subscribed to numerous scholarly databases geared towards enhancing postgraduate students'

academic achievement. However, being aware of the subscribed databases by postgraduate students will greatly enhance its utilization vis-à-vis the academic achievement of the students.

Postgraduate study is connected with further studies that someone does at a university after receiving their first degree with the aim of further exploring a subject in order to attain a high level of proficiency. It is also the type of studies done at the tertiary institutions, usually at the University for the Award of higher degrees. The library is mandated to facilitate the goal of postgraduate studies with the provision of print, non-print, and electronic resources especially access to online databases so that they can help in achieving great academic performance. Subscribed databases play significant roles as information sources in today's libraries. Availability of subscribed databases is the act of subscribing and making available scholarly databases that will support the academic achievement of postgraduate students. Availability of subscribed information resources in the library is not just enough, users must know of their existence to be able to use them effectively; and to put to use what's available, users must possess pre-requisite skills that will enable them to exploit these resources and services. It is important that academic libraries have databases that are available to postgraduate students irrespective of time, location, and technical know-how. Also, scholarly databases that are relevant to academic activities and research work of postgraduate student should be subscribed to by the library.

Availability at any time of the day; hyperlinks to other resources; huge information reservoirs; various search options; easy citations; ease in uploading and updating; ease of archiving are also importance of information resources as noted by (Tekale & Dalve, 2012). Printed library resources are much costly when compared to subscribe databases such as Emerald, Elsevier, ProQuest, ScienceDirect and JSTOR. This is supported by Gakibayoet *al.* (2013), who observed that many university libraries invest largely in subscribing to online databases or online information resources. Therefore subscribed databases are provided by these university libraries to improve the academic performance of postgraduate students.

Awareness is part of availability and it indicates the extent to which users have information and knowledge of subscribed information resources being subscribed to. When users of a library have adequate information on the subscribed information resources being subscribed to, they are encouraged to use them. Madukoma, Onuoha and Ikome (2014) identified lack of awareness as a major contributing factor to non-use of subscribed databases.

Utilisation in this study is the extent to which online subscribed databases provided are used for research and academic achievement by agricultural postgraduate students. It is the ease, with which patrons obtain resources from libraries' collections. Subscribed databases are new ways of gaining use to large volumes of information through which users can satisfy their information. Use to these subscribed databases holds the key to

harnessing their many advantages. Subscribed databases may be available and relevant to a researcher's interest and without his ability to lay hand on it. Ezenia and Anezi (2016) submitted that, use of subscribed information resources is what attracts users to the library. The author further asserted that, a user who hurries to the library as an information pool or bank turns back disappointment if his or her needs are not met by the library.

Utilisation of these subscribed databases resources is now considered more important than mere collection. Academic libraries in all countries spent huge amounts of money on these resources to satisfy the teaching, learning and research needs of their users. It is therefore imperative from the part of the university to ensure that these databases are optimally utilised to contribute to the academic excellence and achievement of its user community. The utilisation of subscribed databases can be useful tool to enhancing agricultural postgraduate student's academic achievement. The usefulness of subscribed databases to academic performance of agricultural students could depend on a lot of already mentioned factors, but specifically the approach of the students to its integration to their studies. How one utilizes these tools largely determines whether the tool is beneficial to one's academic achievement or proves detrimental instead. It is assumed that the utilisation of these subscribed databases could positively affect a student's endeavours' and in turn influence academic achievement.

Despite the research activities of agricultural postgraduate students in utilising the available subscribed databases, their academic achievement are still not very impressive with gross availability and utilisation of subscribed databases, it is expected that agricultural postgraduate students' academic achievement should improve and that is the motivation of this work. Base on the above background, this study is geared towards assessing the relationship between availability and utilisation of subscribed databases in relation with the role it play on postgraduate students academic achievement in university libraries in North Central Nigeria.

#### **Objectives of the Study:**

1. determine the academic achievement of agricultural Postgraduate Students in federal university libraries in North-central, Nigeria;
2. find out the influence of availability of subscribed databases on agricultural postgraduate students' academic achievement in federal university libraries in North-central Nigeria;

#### **Methodology**

The study used descriptive research design and the population consisted of two thousand four hundred and sixty-three (2463) agricultural postgraduate students. The sample size of the study is three hundred and thirty-five (335) agricultural postgraduate students were chosen as sample size of this study using Krejcie and Morgan 1970 cited

by Onwukanjo (2017). The study adopted multi-stage procedure. Firstly, the researcher adopted simple random sampling to select four universities based on status of offering postgraduate study in agriculture. Secondly, the study equally adopted proportionate stratified sampling to sample the number of respondents in order to give equal chance to each of the respondent in order to have a balanced representation. Structured questionnaire was used and descriptive and inferential statistics were used to analysed the data collected.

## Results

**Research question one:** How is the academic achievement of postgraduate students determined?

**Table 4.1: show how the Academic Achievement of Postgraduate Students are determined in federal Universities been studied**

S/N a.	Statements	S	D	A	SA	$\bar{X}$	SD	REMARK
1.	My academic achievement is determined by my Cumulative Grade point Average (CGPA)	41	59	131	86	2.8	.9735	Agreed
2.	My academic achievement is determined by my Continuous assessment	67	88	159	39	2.5	.7219	Agreed
3.	My academic achievement is determined by my examination performance	77	25	139	76	2.5	1.0886	Agreed
4.	My academic achievement is determined by my quiz	50	62	140	67	2.7	.9699	Agreed
5.	My academic achievement is determined by my seminar presentation	23	105	61	128	2.9	1.0115	Agreed
6.	My academic achievement is determined by my Group presentation	37	72	116	92	2.8	.9789	Agreed
7.	My academic achievement is determined by my term paper	15	105	126	84	2.5	.8135	Agreed

Key: SD: Strongly Disagreed, D: Disagreed, A: Agreed, SA: Strongly agreed

Table 4.1 showed the factors that affect academic achievement of Postgraduate students. Decision point was determined using 2.5. The mean value of any of the item less than 2.5 will be rejected, while any item whose mean value is equal or greater than 2.5 will be accepted. The table revealed that the respondents with the mean and standard deviation value of 2.5 and above have agreed that Cumulative grade point average of 2.8(.9735), continuous assessment of 2.5(.7219), examination performance of 2.5(1.0886), quiz of 2.7(.9700), seminar presentation of 2.9(1.0115), group presentation of 2.8(.9789) and

term paper of 2.9(.8136) determine the academic achievement of postgraduate students respectively.

**Research question two:** What is the influence of availability of subscribed databases on agricultural postgraduate students' academic achievement in federal university libraries in North-central Nigeria?

**Table 4.2: Influence of Availability of Subscribed Databases on Agricultural Postgraduate Students' Academic Achievement**

S/N n.	Statements	S D	D D	A A	S A	$\bar{X}$	SD	REMA RK
1.	Availability of subscribed databases improves my Cumulative Grade point Average (CGPA)	1	9	22		3.28	0.47	Agreed
2.	Availability of subscribed databases improves my Continuous assessment	4	6	13	6	2.50	1.00	Agreed
3.	Availability of subscribed databases improves my examination performance	5	5	13	6	2.69	0.99	Agreed
4.	Availability of subscribed databases improves my performance in quiz		1	14	17	3.53	0.51	Agreed
5.	Availability of subscribed databases improves my individual presentation	4	8	11	10	3.03	0.82	Agreed
6.	Availability of subscribed databases improves my Group presentation		11	11	8	2.92	0.79	Agreed
7.	Availability of subscribed databases improves my research activities	4	5	7	14	3.02	1.10	Agreed
8.	Availability of subscribed databases improves my seminar presentation	11	9	13	8	2.89	0.83	Agreed
9.	Availability of subscribed databases improves my academic interaction/ discussion	3	5	13	8	2.88	0.95	Agreed

Key: SD: Strongly Disagreed, D: Disagreed, A: Agreed, SA: Strongly agreed

Table 4.2 showed the influence of availability of subscribed databases on agricultural postgraduate students' academic achievement. Decision point was determined using  $\bar{X}=2.5$ . The mean value of any of the item less than 2.5 will be rejected, while any item whose mean value is equal or greater than 2.5 will be accepted. The table showed that the respondents agreed that availability of subscribed databases improves Cumulative Grade point Average (CGPA) 3.28(0.47), continuous assessment 2.50(1.00), examination performance 2.69(0.99), quiz 3.53(0.51), individual presentation 3.03(0.82), group presentation 2.92(0.79), research activities 3.02(1.10), seminar presentation 2.89(0.83) and academic interaction 2.88(0.95) respectively.



### **Discussion of Findings**

The findings of the study showed that academic achievement of agricultural postgraduate students are determined by quiz, test, examination performance, seminar presentation, individual and group presentations. The findings are supported by Siah and Maiyo (2015) who asserted that students' academic achievement is determined by CGPA, examination performance and seminar presentation. Academic achievement therefore measured aspect of a student's mastery of skills and subject contents as measured with valid and reliable tests.

Similarly, the findings of the study showed that the availability of subscribed databases influenced the academic achievement of agricultural postgraduate students. The findings were supported by Isiakpona, and Ifijeh (2012) studied the availability of electronic resources for service provision in three university libraries in Ogun state Nigeria. The authors reported EBSCOHOST, HINARI, JSTOR, OARE, MIT, AGORA, ScienceDirect and IEEE as the types of available electronic resources in Babcock University, Covenant University and Federal University of Agriculture Abeokuta. The findings of the authors revealed that both postgraduate students' and undergraduate students' perception of databases were on the positive side because they perceived it has been used for their research and this had high impact on usage of the resources at the Serial Section of the library. Alson, Umeozor and Emasealu (2017) supported the findings of the study. The findings of authors showed that AGORA, HINARI and JSTOR were the most used electronic resources by the lecturers of the university of Ibadan with scores 98.2%, 98.2% and 96.4% for the faculties of Agriculture, Science and Social Sciences while the three electronic resources (AGORA, HINARI, and JSTOR) has 100% responses from the three faculties in OAU.

### **Conclusion and Recommendations**

The study was undertaken to determine the Availability and Utilisation of Subscribed Databases as correlates of Agricultural Postgraduate Students Academic Achievement in Federal Universities Libraries in North- Central Nigeria. Based on the findings in this study, it concluded that academic achievement of postgraduate students is measured using different parameters such as the use of seminar, examination, group and individual assignment, and test leading to Average Cumulative Grade Point (CGPA) of the students. The evaluation of the availability and utilisation of subscribed databases is pertinent to the academic achievement of agricultural postgraduate students. It is important for academic libraries to subscribed to scholarly databases such as Elsevier ScienceDirect, CAB Abstract, ProQuest, Agora, Nigerian Virtual Library, E-Granary, GOALI, World Bank Database, EBrary, Hinary, Emerald, Agriculture and natural resources, Biosciences Information Services, Tropag, African Journals Online, Veterinary Science Database, Gale, Biotechnology, Agricat, Horticulture online database, agriculture economics database, scientific publisher's databases, Zoological records, Biomed central, BeastCD, and

Agricola in order to be able to meet the academic and research needs of postgraduate student. Therefore, there is need to put in place strategies that will increase the trust in the electronic information resources among the postgraduate students to improve its use. Also, effort should be made to acquire resources from reputable publishers, this will further build the trust in the resources and consequently increase the usage.

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