

**ENHANCING THE USE OF ELECTRONIC DATABASES FOR IMPROVED
RESEARCH PRODUCTIVITY OF ACADEMIC STAFF IN UNIVERSITIES****BY**

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Abstract

This study investigated strategies for enhancing the use of electronic databases for improved research productivity of academic staff in universities. The study critically discussed the use of electronic databases by academic staff in the universities. The study examined the benefits that can be derived from using electronic databases by academic staff in universities. Some of these benefits include currency, accuracy, flexibility, speed, wide range and available 24/7. The study also identified the challenges that are encountered by academic staff from using electronic databases in universities. Some of these challenges are slow internet connectivity, poor power supply, lack of awareness of available electronic databases in the library among others. Based on these, it was recommended that: intensification of awareness campaigns on the use of available electronic databases, training and retraining of academic staff on the use of electronic databases for research, power supply and internet connectivity should be improved in university libraries, among others. The research concluded that due to the need for academic staff in universities to improve their research productivity, the universities through the libraries should subscribe to databases to enable them have access to current and accurate information resources for improved research productivity.

Key words: Electronic Databases, Research Productivity, Academic Staff

Introduction

Universities are institution of higher learning that provide facilities for teaching/learning, research, community service and are authorized to grant academic degrees in different fields. They are educational institutions that undertake undergraduate and graduate studies in various fields in order to advance teaching, learning and research. The universities also make sure that the academic environment is conducive for teaching and learning and academic staff have all that

is required to carry out their basic functions which is teaching and conducting researches. One of the ways the universities do these is to subscribe to those databases that will help the academic staff to improve in their field and their research productivity as these are prerequisite for academic staff to be promoted on the job.

Academic staff in any higher institution, especially universities, are provided with the opportunity to focus on an area of inquiry, develop a research program and later share the knowledge with students and others in the drive to develop professional skills and impact on a field of specialization and society, as a whole. In a way to support this, government, universities, Non-Governmental Organizations (NGOs), external agencies/donors, and private individuals' organizations have made provisions of different databases in order to enhance the use and improve the research productivity of academic staff in the universities. Some of these databases according to Uzuegbu, Chukwu, & Ibegwam (2012) include Science Direct, ECONLIT, ERIC, LANTEEL, LEXIS NEXIS, AGORA, HINARI, EBSCHO HOST and MEDLINE. With the introduction of these databases, the availability of information resources and services for enhancing teaching/learning and research of academic staff is unquestionable as the use of these databases by academic staff are vital in teaching, learning, research and community services.

Electronic databases are ideal for in-depth research on complex topics, they contain a large amount of research written by professionals; they also include easy to add limits to help refine searches and pinpoint topics. Their authorship and publication information are clear, along with citation information and there are no advertisements or paid placements. They are usually subscribed to and made free for users (academic staff) through the university libraries. It has

been established that some of the reasons why academic staff find it difficult to use databases is because it is usually hard to find simple explanations or topic overviews, full-text isn't available for everything, and you always need to log in (Akinola et al, 2018). Databases often have different interfaces and look more intimidating to search with, aggregated searches (like the library home page) may not search within all databases, so you may miss content. These have led to poor usage of electronic databases and in a way lowered the research productivity of academic staff in the universities. This opinion paper, therefore, looks at the benefits that can be derived, challenges that are encountered by academic staff from using electronic databases and ways of enhancing the use of electronic database for improved research productivity of academic staff in universities.

Concept of Improved Research Productivity

Research productivity in universities is reflected in the number and quality of articles published. Often, universities evaluate and promote their staff on their publication count (Jaunch & Glueck, 2010). According to Goodall, Amanda and Singell (2014), research productivity is a combination of two words which comprised Research and Productivity. They defined Research to mean very careful, observant, and vigilant study or investigation of phenomena, particularly to search and find out new particulars, information and facts while productivity means production or output, produced in duration of time. Research means to conduct research, collecting data and analyzing of data. Productivity means writing, reading and publication of research reports sometimes in professional referred journals, displaying on the web or to make it known to public through any other means. Research is one of the determinants of measuring productivity of academic staff of universities all over the world including Nigeria. It is a means by which

academics contribute new knowledge to the existing body of knowledge in form of journal articles, technical reports, books or chapters of book (Okpe, Simisaye and Otuza, 2013). It may also be referred to as number of published information materials to the credit of a researcher for the dissemination of his research findings (Madu in Solanke 2016). Research is one of the cardinal responsibilities of academic staff as they are expected to get promoted based on their research productivity. The quality and quantity of research products in terms of journal articles, books and conference papers is the output of their research activities known as research productivity.

Research productivity is an important criterion for measuring the success of academic staff. Research productivity is usually reflected in the quantity and quality of articles in accredited journals, books, book chapters, conference proceedings of academic staff (Torchich, 2008). It is also through it that academic staff and other faculty staff are appraised. Madu (2009) agreed that research productivity can be measured by determining the number of publications that academic staff have made in referred works overtime. In a way, academic staff are supposed to be given access to different databases in their field to enable them have needed information resources to help them improve their teaching and improve their research productivity.

Improved research productivity according to Wadesango (2014), involves creating a conducive research environment, funding and time availability to staff as these would significantly predict the research productivity of academic staff. Auranen in Wadesango (2014) listed some of these conducive research environments to improved research productivity as funding and other resources, unit or group size, student-staff ratio, diversity of tasks, diversity of

people, autonomy of action, leadership climate or culture, and communication. If conducive research environment is provided for academic staff and universities can subscribe for databases for academic staff, it will go along way in enhancing the use and improve the research productivity of academic staff in the universities.

Using Electronic Databases For Research Productivity

The concept of electronic databases according to Naqvi, (2012) is a large, regularly updated file of digitized information (bibliographic records, abstracts, full-text documents, directory entries, images, statistics, etc.) related to a specific subject or field, consisting of records of uniform format organized for ease and speed of search and retrieval and managed with the aid of database management system (DBMS) software. Content is created by the database producer which usually publishes a print version and leases the content to one or more database vendors that provide electronic access to the data after it has been converted to machine-readable form, usually on CD-ROM or online via the Internet, using proprietary search software. An electronic database content is usually revised and/or augmented, on a regular basis, to provide current information or to add recently published sources and also designs to provide information about a very specific topic, as opposed to a range of topics, usually for a limited audience. For example, most journal databases are updated on a regular basis as new issues are published and indexed. Most databases used in libraries are catalogs, periodical indexes, abstracting services, and full-text reference resources leased annually under licensing agreements that limit access to registered borrowers and library staff. There are different types of electronic databases in the world today, including statistical databases, image databases, among others. These databases are

becoming very important these days as they are more up-to-date, and can be accessed anywhere, crossing all geographical boundaries.

Electronic databases have become an established component of many higher institution's collection. These databases often contain journal articles, or references to such articles, e-books, reference sources, conference papers and reports among others.

Electronic databases are vital in modern day research in the universities. They are usually collections of e-journals and e-books in order to provide cost effective access to these e-resources to the end-users (academic staff). The contents of each database vary from discipline to discipline. For example, MEDLINE provide information resources in medicine; ScienceDirect provides information resources in the field of sciences, AGORA provides information resources in the field of agriculture; HINARI provides information resources relating to the field of health, Lexis-Nexis provides information resources on legal, government, businesses and high technology sources, EBSCO HOST provides information resources in all field of discipline provided the university is subscribed to their database, others include ECONLIT, ERIC, LANTEEL, and so on.

Benefits of Using Electronic Databases

Electronic databases are very valuable and could be used by academic staff in the universities in teaching/learning and to improve their research productivity. The quality of teaching, research and community service of academic staff coupled with their publication in any university system depend on the quality of the electronic databases they use. The ability to use

electronic databases efficiently may depends on basic computer skills, knowledge of what is available and how to use it, and ability to define a research problem.

Electronic databases play significant roles as information sources in today's libraries. Uzuegbu, Chukwu and Ibegwam (2012) in their study confirmed that electronic databases are specialized records of related published information documents which are not available on Google or other common search engines, especially in a full text. Supporting this, Ani and Ahiauzu (2008) stated that 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 databases are provided free of charge to libraries in developing countries by their publishers or vendors, while others require some fees for subscription. Electronic databases are now very popular among library users due to the advantages of using them. Examples of these advantages according to Akinola, Shorunke & Odefadehan, (2018) include speed, flexibility, wide range and the currency. They are usually made available to library users in the entire world, and many users including academic staff can tap into these databases from their own computers or electronic devices anywhere in the world. As a way to enhance the use of these databases, most universities often subscribe and grant free access to academic staff to help them to be current and update their knowledge and also improve their research productivity as required in their field.

More so, electronic databases provide many possibilities and opportunities for providing faster and quicker access to information resources. They are widely available and can be accessed from anywhere and by many users at the same time. It is therefore convenient to use. Electronic databases are more focused on scholarly books and articles, and provide more of

them, than the open web. They are more credible because publishers have checked the contents for accuracy and reliability. Electronic databases provide quick access to information on the Web, such as newspaper, magazine articles, biographies, books reviews, images and more. They provide access to information that are safe, accurate, current, validated, copyright-clear, and organized. Information in databases can be searched using different age-appropriate interfaces and results can be matched to each researcher's reading ability. Searching is precise, quick and convenient. Universities, therefore, spend large amounts of money on these resources to make sure that knowledge disseminated are of current and to enhance its use and to improve the research productivity of academic staff. As universities spend substantial amount of money on subscription of these databases, it is only appropriate and economical that these databases are fully utilized by academic staff to improve their teaching and research productivity.

Electronic databases are beneficial both in teaching/learning and research especially to academic staff in the universities. Information in electronic databases makes it easier for academic staff to have access to large amount of information resources anytime and anywhere around the globe. Kandasamy & Vinithat (2014) noticed that there are increasing need for information in the academic and research terrains. Researchers and students are more than ever searching for electronic information to enhance their studies while academic staff search for the information to enable them to impart up-to-date knowledge. This rapid growing rate of information according to Hadi & Yahaya, (2020) demands from users via electronic resources necessitated libraries in Nigerian universities to become greatly ambitious and attractive towards the need of new technological proficiency and strategies in the provision of electronic resources which have shifted the contents of library operations from printed resources to electronic form.

Again, most academics, especially in Nigeria are saddled with enormous responsibilities that may hinder them from visiting the library but can access the contents of electronic databases from their comfort zones anytime. Electronic databases can be accessed from any part of the world, save time, provide current and up-to-date information, facilitate teaching and research and provide easy access and retrieval to documents of interest. Electronic databases are used in the libraries; to provide access to enormous information resources which is very crucial to overall academic performance of students and research productivity of academic staff. Available literatures have shown that researchers recognize the benefits derived from the use of electronic databases in the universities and these benefits have been proven positive to both academic staff and researchers. For example, Kalogiannakis (2010) argued that teaching/learning and research are some of the fields that have benefited greatly from the use of electronic databases. The author further emphasizes that the use of database resources modernizes learning and teaching methods. Tella et al. (2018) revealed that electronic databases help to provide academic staff with up-to-date data and information. Supporting this, Bamidele et al. (2018) noticed in their finding that academics from Nigerian universities agreed that the use of electronic databases contributed to their research productivity. These reports has shown that academic staff benefits from using electronic databases in teaching/learning and their research productivity has increased tremendously due to the use of these databases in research and teaching in the Nigerian universities.

Challenges Associated with the Use of Electronic Databases

Despite the inherent advantages of electronic databases over the traditional paper-based information products coupled with the enabling environment, regular and alternative sources of

power, robust internet connectivity, academic staff in Nigerian universities are not making optimal use of these databases. Electronic databases in the libraries have made information resources available to both students and staff in the Nigerian universities. However, the development seems to pose serious challenges to the maximum use of these databases. Studies have shown that academic staff in the Nigerian universities encounters lots of challenges in the course of using electronic databases for research. For example, Akinola, et al (2018) in their study noted some of the problems associated with the use of electronic databases to include slow internet connectivity, incessant power outage, no access to full text of citation/abstracts, inadequate infrastructure for accessing electronic resources, inaccessibility of some websites, lack of knowledge of search techniques and download delay. Alhassan (2015) in his findings noted that lack of IT knowledge to effectively utilize the services, network failure, poor network/internet connectivity and power failure were the major factors that hinder the effective use of electronic databases at FUT Minna and IBBU Lapai. Velmurugan in Aina (2014) noticed in his study that one common problem faced by the users of electronic databases is that a greater number of users complained of slow internet access. The slow speed results into wastage of time required to retrieve relevant information. Other problems include lack of constant electricity supply and access to electronic resources. Similarly, Lec and Isa (2001) found out that some of the factors hindering the maximum utilization of electronic databases are lack of adequate internet facilities, use of the password to access some journals and so on. Ochs (2005) found out that language barrier, inadequate infrastructure (computers, electricity, paper, toner cartridge etc), the high cost of printing of articles and limited access (Library hours) are factors that hinders the use of electronic databases in the universities.

Musa, et al, (2015) in their study also revealed that slow internet connectivity in the institution, erratic power supply, insufficient computer skill, Poor ICTs facilities and lack of information literacy skill were the major challenges of academic staff when using electronic databases. Olarongbe and Ibrahim (2017) noticed lack of constant power supply, lack of online access, lack of technical know-how, dislike of reading from a screen and lack of awareness, preference for other sources like general search engines such as Google, lack of search skill, lack of adequate ICT infrastructure, bad downloading time, and at times sheer attitude of users as factors militating against the effective use of databases. Bakare, et al (2013) found that limited time and lack of effective information retrieval skills are the main barriers to using databases. Prangya and Rabindra (2015) found that lack of training, poor infrastructure and high cost of usage are the obstacles to proper and full utilization of database resources. Another study conducted by Adekunle & Oladipupo (2021) reported challenges to the use of electronic databases to include slow internet connection, limited access to PCs, lack of skills in searching for electronic information resources, unstable power supply, limited range of titles of resources, inability to access electronic information resources subscribed to by the institution from remote locations and lack of awareness of the resources by most of the users. The implication is that these challenges have constituted a hindrance to maximum use of electronic databases by academic staff in the universities. If these are allowed to persist and are not properly taken care of, there will be low patronage and minimal use of electronic databases by academic staff in Nigerian universities and this will lower their research productivity.

Strategies for Enhancing the Use of Electronic Databases in the Universities

In Nigeria, many university libraries are in the process of establishing effective use of electronic databases because of the currency and the rich content. Academic staff use electronic databases to get current literatures in which they can use to update their knowledge in research and enhance their research productivity. According to Hadi & Yahaya (2020), many university libraries in Nigeria have embraced active provision of electronic databases. These resources have been in existence for many years in university libraries in Nigeria. This necessitated libraries in Nigerian Universities to become greatly ambitious and attractive towards the need of new technological proficiency and strategies in the provision of electronic resources which have shifted the contents of library operations from printed resources to electronic form. Electronic databases could enhance self-guided learning as information resources become accessible for academic staff to explore for their personal information needs and equipped with other tools to conduct browsing and creative discovery because of the currency of electronic journals' articles and rich content within the databases. The demand for information among researchers in academic library has increased tremendously, therefore accessing and utilizing of information resources is always increasing day by day in this digital era.

Different studies have suggested ways of enhancing the use of electronic databases in the universities by academic staff for improved research productivity. Scholars such as Obuh, (2010); Omotayo, (2010); Prangya & Rabindra, (2015) in their studies noted that factors such as awareness and skill are the determining factors that may influence academic staff's decision to use electronic databases. Their success, however, may depend on several factors such as; availability of these electronic databases, awareness of the use of these databases, skills of each user to locate knowledge elements, power supply, among others. Omeluzor, Akibu & Akinwoye

(2016) in their finding noted that the ways of enhancing the use of electronic databases are training of e-library users as it is relevant in increasing the use of electronic databases by academic staff; creation of awareness and encouraging users to use electronic databases as it will increase usage and will change their perception; available e-resources in the library should be made accessible 24/7. Other ways include creating a record of available databases in the library, time allotted for accessing the e-library and electronic databases should be increased. Emmasiegbu & Anaehobi, (2021) in their study suggested that publicity should be provided for academic staff and other users on the type of databases available in the library's homepage and other metadata search option, libraries should reduce the overload effect like increasing the bandwidth size. These according to the authors will increase database usage, thus enhancing a user's positive attitude to internet use. They further suggested that there should be database training for academic staff instituted by the library, should be regularized and more participants be encouraged to attend.

In another study conducted by Musa, et al, (2015), it was suggested that the university library should take a leading role to create more awareness among Academic staff on the available electronic databases in order to increase the use of databases for improved research productivity. The Faculty and Departments should render their support to encourage academic staff to learn how to use electronic databases effectively for improved research productivity. The university management should also improve on the internet connectivity in the campus and in the library specifically.

Recommendations

Based on the above discussions, it is recommend that:

1. Universities should through the library intensify the awareness campaigns on the use of available electronic databases so as to enhance the use these databases for improved research productivity of academic staff in the universities.
2. There should be training and retraining of academic staff on the use of electronic databases for research and for improved research productivity in the universities.
3. Power supply and internet connectivity should be improved in the university libraries so that academic staff can have access to electronic database resources for improved research productivity in the universities.
4. Libraries should provide a catalogue of subscribed electronic databases to academic staff as it will enhance the use of database resources to improve the research productivity of academic staff in the universities.
5. Libraries should carry out NEEDS assessment to identify users' information needs in order to subscribe to those databases that will be useful in their field and also to enhance the use of electronic databases for improved research productivity of academic staff in universities.

Conclusion

Due to the advancement in information technology, universities are sourcing for means of assisting its staff to improve their basic functions of teaching and carrying out research. One of these ways is by making sure that information resources are made available for academic staff at all times and these resources are at the fingertip of academic staff for usage. To

access the most current and accurate information resources, universities subscribe to different databases in different fields and make it open to academic staff to enable them to update their knowledge and improve their research productivity. This opinion paper has successfully looked at the benefits that can be derived and challenges that are encountered by academic staff from using electronic databases and suggested ways of enhancing the use of electronic database for improved research productivity of academic staff in the universities.

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