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AWARENESS AND USAGE OF INSTITUTIONAL REPOSITORIES: A PANACEA FOR ACADEMIC RESEARCH

Alumona Amaka Ijeoma
Chukwuemeka Odumegwu Ojukwu University Igbariam,
Nigeria.

ABSTRACT
This research was carried out to ascertain if the postgraduate students of Nigerian universities are aware of institutional repositories in their various institutions, there sources of awareness and what the repositories are mostly used for. Descriptive survey research design was adopted for the study. The study was carried out in three universities in Anambra state that have approval from the National Universities Commission to run postgraduate programs. They are Nnamdi Azikiwe University Awka, Chukwuemeka Odumegwu Ojukwu University Uli, and Madonna University Okija. The population of the study was comprised Three Thousand Nine Hundred and Seventeen (3917) post-graduate intakes of 2017 and 2018 academic year of the above named institutions. The sample size of the study was selected through proportionate stratified random sampling techniques. The students were stratified based on their institutions and convenient sampling techniques was deployed in getting actual students to be used for the study. The study found a high level of awareness of institutional repositories with librarians being the greatest source of the awareness and that institutional repositories are mostly used for academic research.

1. INTRODUCTION
1.1 Background to the Study
Institutional repository is a place meant for collection and making accessible to users, information generated in the institution and which may be in form of books, thesis, dissertations articles, conference papers, research works grey literature or those electronic formats, and is always under the administration of the institutional library. In the present technological era, it is always administered and presented in digital formats. Jones (2006) stated that institutional repository is a centralized service that is often run by the institutions library and that the application themselves require internet technology, to be well developed. Crow, as sited in Aghwotu & Ebiere (2016) explained that institutional repositories are digital archives of the intellectual products create

by staff, faculty members and students of universities and which are accessible to end users within and outside the institution. In similar vein, Ridwan (2015) defined institutional repository as contemporary service which academic research institutions render to their community members in the form of managing and disseminating their intellectual works through a digital medium. In the view of Harnad (2003) institutional repository is a digital archive of the intellectual product created by faculty, research staff and students of an institution and accessible to end users both within and outside the institution. According to Lynch (2003) institutional repository is a collection of services that a university proffers to its own members, intended for the management, organization and diffusion of digital works produced by these members.

Advancing reasons for the establishment of institutional repositories, the author stated that they emerged as new strategy that allow universities to apply serious, systematic leverage to accelerate changes taking place in scholarship and scholarly communication. According to Association of College and Research Libraries (2018) the purposes of institutional repositories include opening up the outputs of the university to the world, maximizing the visibility and impact of the outputs, showcasing the university to interested constituencies like prospective staff, prospective students and other stakeholders. Others are collecting and curating digital outputs, managing and measuring research and teaching activities, provision of a workspace for work –in-progress and for collaborative or large –scale projects. According to the association, institutional repositories enable, and encourage interdisciplinary approaches to research, facilitate the development and sharing of digital teaching materials and aids, supports student endeavors by providing access to thesis and dissertations.

Moller (2006) explained that institutional repositories constitutes a reaction against those publishers that create monopolies by charging for access to publication on research they have not conducted, funded or supported. It was therefore established in line with the doctrine of free and open access to the journal articles and other academic outputs of the various institutions and research centers. Anenene, Alegbeleye & Oyewole (2017) asserted that institutional repository has the potential of increasing the visibility, prestige, ranking and public value of researchers and universities. Emphasizing on the role and need for institutional repositories, Halder & Chandra (2012) explained that institutional repository provide open access to institutional research output by self-archiving it, create global visibility for an institutions scholarly research, collect content in a single location, store and preserve other institutional digital assets including unpublished or otherwise easily lost or grey literature. Thus, institutional repository is very crucial in all universities in this modern ear to ensure easy communication of scholarly outputs in the institutions, and also to help create numerous opportunities and advantages for both the institution and members of the academic community through exposure. It accommodates information and various fields of study depending on the focus of the institution.

Such materials that are contained in institutional repositories include thesis works and dissertations, conferences papers, e-books, manuals, administrative documents and products of research from various departments of the institutions.

It also contains other information sources as may have been deposited by members of the academic community such as librarians, professors, and lecturers, other faculty and administrative staff, as well as students. Institutional repository also offers access to information from sources outside the institution as it utilizes internet technology, which it also utilizes to project the performances of the institution and contributors to the outside world. (Association of college and research libraries, 2018). According to Aghwotu & Ebiere (2016), contents of institutional repositories include full text documents such as articles publishers in peer-reviewed journals with permission from the publishers. Others are thesis and dissertations within universities, seminar, conference and workshop papers written by members of academic staff and students. According to the authors, these information sources are always available and made freely accessible to university community within and outside the academic environment. In similar vein, contents of institutional repositories as stated by Anenene et al (2017) are thesis, dissertations, projects, course notes, seminar papers, conference proceedings, administrative documents, learning objects and other forms of grey literature.

A Prospective user of the institutional repository may come for the reason of depositing information contained in any of the afore-mentioned sources for the purpose of archiving it or to avail him/ herself of the use of different types of information contained in the repositories for the purpose of research or other educational goals. The prospective users may be professors, faculty staff, and students. The Association of Research and College libraries (2018) observed that students' research is a growing components of institutional repositories, and that it is not uncommon to find undergraduate and graduate thesis and dissertations in institution repositories. According to the authors, students are motivates to deposit their work in institutional repository it provides a permanent and official place to archive their research so that they may refer to it on curricula vitae. Moreso that as the students build a body of work, the selected work pages showcase their research, which also allows them to build online curriculum vitae and at the same time, promote their research and academic skills. Besides the visibility made possible through institutional repository. It also affords students the opportunity to collaborate for attainment of academic excellence in their chosen fields of study. Students, especially postgraduate students, are actively involved in research due to their level of study. They will therefore find the institutional repositories of their various insinuations very useful as it offers them opportunity to access scholarly contents, disseminate research findings, access thesis works of others, access

seminar and conference papers, access e-books, access journal articles, and retrieve needed material, for all their academic activities which may include excelling in research, doing class assignments or passing exams. The postgraduate students may be those studying for their doctor of Philosophy or Master Degrees or those studying to get their postgraduate diploma in chosen fields of study. Herby (2006) defined postgraduates as those who already hold their first degrees and who are doing advanced study or research. Institutional repository is therefore very suitable and play significant role in the academic activities of this category of users. However, Lynch (2003) stated that institutional repository is a novel idea that sprung up in response to journal crises occasioned by incidence of high subscription fees charged by publishers amidst dwindling budget to libraries. It is therefore possible that postgraduate's students including those in universities in Anambra State may not be aware of the existence of institutional repositories in their institutions, as well as the benefits accruable from them. If this is the situation, it means that they may not be using the repositories, or utilizing their fund potentials in which case, the benefits will be lost and the aim of the institutional repositories will be truncated. This is because awareness in a critical factor in usage. When people are aware of existence of a particular good product, their interest become automatically aroused and which may culminate in concerted effort to purchase the product. Agbowotu & Ebiere (2016) affirmed that lack of awareness adversely affects usage.

Hornby (2006) defined awareness as a state of knowing that something exists and is important. Anenene et al (2017) asserted that it would be very difficult for researchers and academics to utilize institutional repositories if those who are supposed to be aware of the benefits associated with the use of it are not. According to the authors, it is only when the individuals responsible for the establishment of institutional repositories are aware that they can sensitize others. Awareness can occur through various information sources. For the postgraduate students, the awareness may be from colleagues or fellow students, lecturer, friends, notice board, institutions website, library website, posters, library staff or announcement. The awareness will make the students to develop interest and enjoy the full potential offered by the institutional repositories.

In Anambra State, there are five universities as follows: Nnamdi Azikiwe University Awka, Chukwuemeka Odumegwu Ojukwu University Uli, Madonna University Okija, Tansian University Umunya and Paul University, Awka. Among the Universities, Nnamdi Azikiwe Universities is the only federal University, while Chukwuemeka Odumegwu

Ojukwu University is a state University owned by the Anambra State government. Others are privately owned Universities. However, a recent release by the National Universities Commissin revealed that only three of the above-named universities were approved to run postrgraduate courses. They are Nnamdi Azikiwe University Awka, Chukwuemeka Odumegwu Ojukwu University, Uli and Madonna University, Okaji (Ameh, 2018). The three Universities in Anambra State approved to run Posgraudate programmes namely Nnamdi Azikiwe University Awka, Chukwuemeka Odumegwu Ojukwu University, Uli and Maadonna University, Okija, were established in the years 1991, 2000 and 1999 respectively and thus have generated immense information and research output for the benefit of their postgraduate students. It is believed that they will not allow their research output to waste in the repositories, if they are not used as it will affect the institutions themselves.

Ananene et al (2017) stated that a key criterion that is used to measure the quality of a university is the quality and quantity of their research outputs. According to the authors, a university that falters in the production of brilliant researchers that can be applied in moving the society forward socio-economically and technologically, has lost it's relevance. A situation where the institutional repositories of the above-named universities are not used by their postgraduate students due to lack of awareness truncates the essence of establishing the repositories thereby leading to colossal loss in funds, prestige and ranking products of the institutions. On the other hand, a situation where the postgraduate students are aware but are not using the institutional repositories for academic activities also translates to unquantifiable loss to both institutions and students in terms of quality. These are the issues that agitated the researcher and there is no empirical evidence to clarify the situation, thus prompting the researcher to embark on the study titled awareness and use of institutional repository for academic activities by postgraduate students in universities in Anambra State.

1.2 Statement of the Problem

Institutional repositories are very crucial in attainment of the educational aims of the various institutions where they are situated. This is because they grant researchers, faculty staff, lecturers and students, free access to information generated in the institution, as well as others from other institutions, thereby facilitating the capacity, visibility and research output of the institutions and those of other members of the academic community, including postgraduate students. Universities place great premium on research and institutional repositories offer them the resources needed to attain high research output and ensure high academic excellence for users. Anenene et al (2017)

affirmed that a key criterion that is used to measure the quality of a university is the quantity and quality of its research output. According to the authors, a university that falters ion the production of brilliant researches that can be applied in moving the society forward socio-economically and technologically has lost it's relevance. Postgraduate students, including those from universities in Anambra State, by virtue of their level of education are actively involved in research and will find the institutional repositories very beneficial if they use them, as they will help the students to attain academic excellence, high research output, recognition and visibility both for themselves and their institutions. However, it is only when the postgraduate students are aware of the existence of the institutional repositories and are using them for academic activities that the potentials and benefits for establishing them will be realized, otherwise it will be a wasted effort.

The question that bothered the researcher are as follows: are the postgraduate students of Universities in Anambra State aware of the existence of institutional repositories in their institutions? If they are aware, for what academic activities do they use them?

A careful review of literature revealed no empirical evidence to clarify the afore-mentioned issues which if not resolved, may lead to decadence and loss, both in funds, prestige exposure and academic excellence for both the institutions and the postgraduate students, hence raising the need for the study. This study is therefore aimed at determining the awareness and use of institutional repository for academic activities by postgraduate students in universities in Anambra State.

1.3 Purpose of the Study

The purpose of the study was to determine the awareness and use of institutional repository for academic activities by postgraduate students in Universities in Anambra State. Specifically, the study sought to:

i. Find out if the postgraduate students of universities in Anambra state are aware of institutional repositories in their institutions.
ii. Determine the postgraduate students' source of awareness of the institutional repositories.
iii. Ascertain the academic activities which the postgraduate students use the institutional repositories.

1.4 Research Questions

1. Are the postgraduate students of the universities in Anambra State aware of institutional repositories in their universities?
2. What are the postgraduate students' sources of awareness of the institutional repositories?
3. For what academic activities do the postgraduate students use the institutional repositories?

2. REVIEW OF RELATED LITERATURE

2.1 Conceptual Framework

2.1.1 Awareness

Awareness is a state of knowing that something is true or exist. According to Edu Tech Wiki (2013), awareness is a state of being aware, to be aware and sensible about certain problems and issues. Dourish & Beloti (1992) defined awareness as an understanding of the activities of other which provides a context for our own activity. In similar vein, summers (2003) defined awareness as knowledge or understanding of a particular subject or situation. According to the author, awareness is also the ability to notice something using your sense. According to Gutwin & Greenberg (1999) awareness is necessary in completing a task. The authors posited that awareness is a process that sums up the knowledge extracted from an environment and updates it through interaction between participants and their environment.

The online free Dictionary (2014) defined awareness as a state of having knowledge or discernment of something. Awareness implies knowledge gained through one's own perceptions or by means of outside information. From the foregoing, the researcher sees awareness as a state of having knowledge about a situation or existence of a thing. A state of awareness is a state devoid of any doubt about the existence of a thing or particular situations. Awareness always precipitate reaction and action is one form or the other depending on the situation or perception of an individual towards the particular occurrence or issue. Awareness is very crucial in the realization of any goal or agenda. Awareness has capacity to obliterate negative thoughts and disposition. It also has the capacity to obliterate superstition, disbelief, uncertainty, suspicion, lethargy or other negative inclinations that may mar or work against the attainment of an expected goal or objective. Awareness creation plays active role in all forms of human endeavor including politics, education, human relations, health economy, security, social life and successful execution of all government programs. It is always a tool for propagation of knowledge. With particular reference to the study titled awareness and use of institutional repository for academic purposes by postgraduate students of universities in Anambra State, awareness is needed to sensitize and make the postgraduate students of the institutions under study to be aware of the existence of this crucial information and knowledge source called institutional repository. If they are aware, it now becomes a tool to increase their knowledge and thus influence their use of it positively.

2.1.2 Institutional Repository

Institutional repository is a place where information generated in an institution by members of

an academic community of that institution through their various academic efforts are digitized and kept for use by users within or outside the institution. Association of College and Research Libraries (2018) defined institutional repository as online archives for collecting, preserving and providing open access to an institutions intellectual output and other digital assets, with emphasis on research and scholarly works. In similar vein, crow (2002) defined institutional repository as digital archive of the intellectual product created by faculty, research staff, and students of an institution with few if any barriers to access.

According to New World Encyclopedia (2018) institutional repository is an online locus for collecting, preserving and disseminating in digital form, the intellectual output of an institution, particularly a research institution. Mohammed (2013) stated that institutional repository is an electronic archive of the scholarly output of an institution, stored in a digital format where search and recovery are allowed for its national or international use. According to the author, the general idea behind institutional repository is to store, manage and preserve a university's born digital and digitized assets, making them freely available via the internet. Ridwan (2015) defined institutional repository as contemporary services which academic research institutions render its community members in form of managing and disseminating their intellectual works through a digital medium. Johnson (as cited in Manjuntha & Thandavamoorthy, 2011) posited that institutional repositories are digital archives of intellectual items created by the faculty, staff and students of an institution, accessible and users both within and outside the institution. In similar rein, Halder & Chandra (2012) explained that institutional repository is a set of services offered by a university or group of universities to members of its community for the management and dissemination of scholarly materials in digital format created by the institution and its community members. Roy, Mukhopadhyay & Biswas (2012) saw institutional repository as a place where digital content and assets are stored and can be searched and retrieved for later use. According to Alemayehu (2010) institution repository is a web-based searchable database of scholarly material that has been created by faculty and other researchers. This material is collected, stored made web accessible by an institution or group of institutions to preserve scholarly communication in a digital environment across disciplines (Alemayehu, 2010).

Institutional repository sprung up as an answer to the problem of high cost of journals which is a critical tool in research. The situation was also compounded by dividing budgets for libraries which could not guarantee the purchase of the costly journals which contain, research output of many academics and researchers and which they need for future research. The concerted effort to tackle the problem led to the establishment of open access as canvassed by the Budapest Open Access Initiative and Berlin Declaration in 2003 (Manhunatha & Thandavamoorthy, 2011; Aghwotu & Ebiere, 2016). Aghwotu & Ebiere (2016) explained that open access publications are free online resources that do not require subscription fee to access them. Expatiating further, Hixson & Cracknell (2007) said that open access allows all members of the society to freely access relevant cultural and scientific achievements in particular by encouraging the free online availability of such information. Thus, institutional repositories became modeled after this free access initiative to take care of publications and other academic and research outputs that are continually churned out in the various institutions where they are situated. Due to internet connection which is very vital in ensuring effectiveness of institutional repositories, users also have the privilege o access research outputs of other institutions. Bijan, Mukhopadhyay & Subal (2012) stressed that institutional repositories are being established to support open access movement so as to provide access to public funded research, and to provide open access to the institutions output and o support preservation. Institutional repositories play a fundamental role in centralizing, preserving and making accessible, the institutions intellectual capital (Shempa, 2012).

Halder & Chiandra (2012) stated that objectives for establishing institutional repositories are to provide open access to institutional research output by self-archiving it, create global visibility for an institutions scholarly research, to collect content in a single location, to store and preserve other institutions digital assets including unpublished or easily lost literature like theses and technical reports. According to Association of College and Research Libraries (2018) an institutional repository has many objectives as follows: opening up of the outputs of the university to the world, maximizing the visibility and impact of these outputs, showcasing the university to interested constituencies i.e. prospective staff, perspective students and other stakeholders. It also serves to collect and curate digital outputs, manages and measures research and teaching activities, provides a workspace for work scale projects. It also enables and encourages interdisciplinary approaches to research facilities the development and sharing of digital teaching materials and aids, supports student's endeavors. According to the author, it also provides access to theses and dissertations and act as a location for the development of e-portfolios. Enumerating benefits of institutional repositories, Hixsona & Cracknel (2007) stated that in addition to offering free access to scholarly output, institutional repositories also increase an institutional

profile, gives personal visibility and preserves materials that might otherwise be lost or at risk. According to the authors, institutional repository improves access to material that may be hidden or those that have limited access, and provide access to web-based resources. It also facilitates collaboration between the library, the academic units and the administrative units which ultimately leads to more cross-disciplinary collaboration on campus.

According to Jones (2006), besides archiving research output, institutional repositories can be used to perform such functions like information and knowledge management, research assessment and to showcase institutions research outputs. According to the authors, it also provides a common platform for everyone in the institution to contribute scholarly materials to promote cross-campus interdisciplinary research.

Stanton & Liew (2012) stated that archiving allows research outputs to be preserved in digital form thereby making them easier to be retrieved in preparation for funding or promotional rounds. Stanton & Liew (2012) outlined benefits accruable from institutional repository as follows: removing cost as a barrier to access, creation of opportunities for professional networking, feedback, exposure on Google scholar and ability to share work with students, other researchers and the public. Other benefit according to the author include increasing rate of citation of work, creation of opportunities for availability of work on research websites like KRIS, creating opportunity for publishing research finding more quickly, creating opportunity for preservation of digital copy of work by the university, enhancing research profile of university, enhancing personnel profile of researchers and creating opportunities for increased sharing of work with research community and helping to keep track of research work for use as curriculum vitae.

Expatiating further on the need and benefits of institutional repositories, Mohammed (2013) explained that institutional repository provide infrastructure for preservation of digital content, lowers barriers to document distribution, facilitates wider distribution of work and creates a centralized digital platform to showcase research, teachings and scholarship.

Yeates (as cited in Mohammed 2013) also added that institutional repository extends the range of knowledge sharing, boosts existing investments in information, provides more flexible ways of scholarly communication and provides opportunities for leveraging content management systems. Ridwan (2015) stated that institutional repository has many benefits including improved access to institutional research, improved citation and research impact and cost-effectiveness of information dissemination on the

part of the institutions. Crow (2002) stressed that institutions benefit a lot from institutional repository as it serve as tangible indicator of an institutions quality, thus increasing its visibility, prestige and public value. According to the author, it also increases the ranking of an institution both at local and international level, enhances learning, online teaching and research and presents the institutions intellectual capital to a whole lot of scholars.

Abderahman (2017) stressed that both the institution and contributors benefit from institutional repository. For the university, institutional repository offers increasing visibility, prestige, centralization, and serves as storage for all types of institutional output including unpublished literature. It also offers support for learning and teaching and also offers the ability to keep track of research and analyze research performance. Benefits of institutional repository to contributors include: enhancing dissemination of research creating impact of scholarship and offering storage and access to a wide range of materials in addition to getting feedback and commentary from users of such works (Abdelrahman, 2017).

In similar vein, Aneneme et al (2017) stated that institutional repository has benefits for both the university and users as follows: increased visibility, prestige, ranking and public value of both researchers and the universities. To contributors, it also increases impact of their research output, creates further research approaches and creates opportunity for self-archiving of work. It also offers increased citation of published work and moreso, researchers enjoy access to articles without hindrance and charges. It also exposes contributors to wider audience.

Extolling the capability made possible through institutional repository, Jones, Andrew & MacColl (as cited in Okorma and Abioye, 2017) posited that the faster the research in known and understood, the faster we all benefited thus emphasized that institutional repository plays effective communication tool role with remarkable speed. Okoroma & Abionye (2017) also highlighted the benefit roles of institutional repositories to both the institution and contributors as follows: encouragement of free sharing of information, encouragement of collaboration of institutional education and research activity, boosting of library resources and services.

According to the authors, it also supports faculty practice of online self-positing of research, facilities development of the university's intellectual property policies and encourages faculty and administrations perspectives on the afore-mentioned issues. Welstell (as cited in Alemayehu, 2010) posited that institutional repository helps to ensure long-term preservation of an institutions academic output, increases it's visibility and prestige and also act as an

advertisement to attract funding sources, potential faculty members and students. According to the author, it also provides a central archive of a researchers work and also increases the dissemination of such works.

Ogbenetega (2012) stressed that institutional repository which follows the doctrine of open access offers free online access to literature necessary for research work, reduces publication delay, enhances citation to published scholarly work, and offers career development and free publication for authors. The authors stated that through institutional repository much of the research output documented as grey literature stand a better chance of visibility and accessibility. Moreso, most materials such as preprints, and post prints journal articles, conference proceedings, electronic theses and dissertations, all of which remain invisible in most universities may be made available for free through the internet. Information materials available in institutional repositories are diverse, but depend on the focus of the institution.

According to Alemayehu (2010) content matters for the success of institutional repository, it is the materials that are contained in the institutional repositories that attract users to the institutional repositories unless those whose intentions are to deposited own material or get connected to works of others or other online sources through the intent. Because of the digital nature of institutional repositories, they have internet connection, and thus contain such online or information and communication technology tools like computers, modem, internet, servers, and networks, among others. It contains research works of students like theses and dissertations and research works of lecturers and other faculty staff which are made freely available for use by members of the academic community, and even those from outside the institution. Association of College and Research Libraries (2014) stated that it is not uncommon to find undergraduate and graduate theses and dissertations in institutional repositories. Aghwotn & Ebiere (2016) observed that institutional repository contain full text documents such as articles published in peer-reviewed journals with permission from the publishers. According to their authors, other materials in institutional repositories are theses, and dissertations seminar, conference and workshop papers written by academic staff and students. Barley, (as cited in Agwotu & Ebiere, 2016) stated that institutional repositories contain electronic information or other types of digital resources such as electronic reports.

Online Free Dictionary (2014) explained that deposits of institutional repository are sometimes mandated by the institution. Institutional repositories also contain materials such as monographs, e-prints of academic journal articles both before (pre-prints) and after (post-prints) undergoing peer review, as well as electronic theses and dissertations. New World Encyclopedia (2018) revealed contents of institutional repository as follows: research journal articles, peer reviews and digital versions of theses and dissertations. It also contains other digital assets generated through normal academic life such as administrative documents, course notes or learning objects. Online free Dictionary (2014) affirmed that institutional repository also contain digital assets generated by academics such as datasets, administrative documents, course notes, learning objects and conference proceedings. According to Mohammed (2013) contents of institutional repository are journal articles, conference papers, reports, theses, and dissertations, teaching materials, artworks, research notes, research data and other digital intellectual output produced in the institution.

Abdelrahamn (2017) outlined contents of institutional repository dissertations, undergraduate dissertations, e-books, and the university's archive documents. According to Manjunatha & Thandavamoorthy (2011) institutional repository contains information materials such as pre-prints and post prints of journal articles, conference papers, research reports, theses and dissertations, software, datasets, videos, audios and other scholarly items. In seminar vein, Anenene et al (2017) outlined contents of institutional repository such as theses and dissertations, datasets, projects, course notes, seminar papers, conference proceedings, administrative documents, learning objects and other forms of grey literature. Halder & Chandra also affirmed availability of e-prints, technical reports theses and dissertations, datasets, and teaching materials in institutional repositories. In similar vein Okoroma & Abioye (2017) affirmed availability of pre-prints and post-prints of journal articles, conference papers, research reports, audios, teaching and e-learning materials, e-theses, primary research data and datasets. Other contents are videos, audios, teaching and e-learning materials, e-theses, electronic records, multimedia or image materials, working papers and grey literature which are by nature usually very difficult to access and other scholarly item (Okoroma & Abioye, 2017).

2.1.3 Academic Activity

Hornby (2006) defined academic as something connected with education, especially studying in schools and universities. The same source defined activity as a situation in which something is happening or a lot of things are being done. It can therefore be inferred from the above definitions that academic activities are those thing done in schools and universities in pursuit of education. Education related activities in universities include reading, studying, teaching, research and collaboration in one form or the

other for attainment of educational objective of the institution. With reference to the study, academic activities that may be carried out by postgraduate students of the universities under study are the things which the postgraduate students do in instructional repositories or through institutional repositories in pursuit of their educational or learning objectives or those of their institutions. As a research center, the postgraduate students may go to the institutional repositories for activities such as research, consultation with colleagues, and friends, to download or to deposit work among others.

In line with the objectives for establishing institutional repositories, the academic activities in the repositories may include accessing research outputs, accessing documents, submission or archiving of work, or engaging in other educational efforts of the university that may promote or lead to their visibility and of their institutions. This is because Okoroma & Abionye (2017) explained that institutional repository enables free sharing of information, encourages collaboration and widespread communication of institutional education and research activity.

2.2 Theoretical Framework

The study titled "Awareness and Use of Institutional Repository by Postgraduate Students of Universities in Anambra State" is anchored on Rogers diffusion of innovation theory (Rogers, 1995). According to Stanton & Liew (2012), Roger's diffusion of innovation theory is appropriate in explaining student's awareness and use of open access information repositories. According to the authors, the theory provides a framework for explaining how and why innovations defined as new tools, processes or ideas come to be adopted by certain groups. Institutional repositories perfectly represent Rogers concept of an innovation as an idea, practice or object that is perceived as new by an individual or other unit of adoption (Stanton & Liew 2012).

According to Rogers (1995) diffusion is the planned and/or spontaneous spread of innovation through a process of communication. It was also defined by the author as the process by which an innovation is communicate through certain channels over time among members of a social system. The alignment of the innovation with the existing social structure plays a vital role in the process of diffusion and normative behaviour in a culture or community. The theory explained that the adoption of an innovation depends on certain conditions which include: relative change, compatibility, complexity, triability and observability. Expatiating further, Rogers (1995) explained that an innovation is more likely to be adopted if it is perceived to be more advantages than the idea or process it supersedes. It is also more likely to be easy to understand and use. The author also

explained that an innovation is more likely to be adopted if it can be experimented with during the process of adoption. It is also more likely to be adopted or at least experimented with if it is visible or being seen to be used within a particular community. With reference to theory, institutional repository is an innovation that emanated out of extensive search for alternative and lasting solution to problem of scarcity and high cost of journals needed by academics and universities for research. Libraries which resources and materials could not cope with high demand for information resources needed for research due to dwindling budgets (Alamayelu, 2010). Concerted efforts by information experts and other stakeholders thus gave birth to the innovation called institutional repository because even the contents of the scare research journals were product of the research institutions and their academic. This institutional repository solved the dual problem of scarcity of journals and perceived monopoly of publishers. It also brought visibility for the universities that own them as well as the contributors who include lecturers, faculty personnel and students (Anenene et al, 2017). As an innovation, it is possible that some stakeholders like students may not know about the institutional repositories and their benefits having been used to the older order of using the libraries alone, and as a result, may not be using them. This therefore raised the need for awareness creation which is part of the focus of the study. Drawing from Stanton & Liew (2012) institutional repository being an innovation, will be moiré likely to be adopted by postgraduate students if it is perceived to be advantageous to place of study and if it is consistent with existing publishing and research practice, easy to use, known and easy to access. This conforms to the characteristics stated by the theory for adoption of an innovation which in this study is known as institutional repository. The conditions of relative advantage, compatibility, complexity, triability and observability will be only be ascertained by the postgraduate students of universities in Anambra State through active use of the institutional repositories and this use is hoped to be facilitated through awareness creation. Hence, this study is poised to determine the awareness and use of institutional repositories by postgraduate students of universities in Anambra State.

2.3 Empirical Studies

Halder & Chandra (2012) carried out a study on users attitudes towards institutional repository in Jadavpur University. The purpose of the study was to determine the awareness of the users concerning institutional repository, to determine the users awareness of institutional repository software, to know the users source of awareness of institutional repository, to assess the users academic publishing in institutional repository, and to assess the users attitudes

towards institutional repository. The population of the study was two hundred (200) and no sampling technique was adopted in the study as the entire population was studied. The studied adopted descriptive survey research design and questionnaire was the instrument used for data collection although the method of data collection was not indicated. Data generated in the study was analyzed with descriptive statistics using tables and percentages. The study revealed that the respondents were aware of institutional repository and that they have positive attitude towards the institutional repository. It also showed that the sources of awareness of institutional repository were teachers, library website, colleagues, friends, bulletin boards and internet. The study recommended that more user awareness programmes should be carried out in the institution.

Alemayehu (2010) conducted a study on researcher's attitude in using institutional repositories: a case study of the Oslo University Institutional Repository. The purpose of the study was to determine the respondents' level of awareness of institutional repository and their attitude towards the use of the institutional repository. The population of the study was not indicated but a sample of forty three respondents, selected through purposive sampling technique was used for the study. The design of the study was qualitative survey and it was a case study. Questionnaire was the instrument adopted fort data collection and data collected through the study were analyzed with descriptive statistics using percentages. Findings from the study showed that the respondent's level of awareness of institutional repository was low. It also revealed that the respondents exhibited positive attitude towards use of institutional repository and that level of awareness of institutional repository increases with age. The study recommended more awareness creation among the university community, improving the functionality and usability of the institutions website, and provision of incentives like writing acknowledgement letters to depositors or any other form of recognition.

Abdelrahman (2017) conducted a study on use of University of Khartoum Institutional Repository by graduate students. The purpose of the study was to determine use of the institutional repository by the graduate students and to determine their awareness and attitudes towards the University of Khartoum Institutional Repository. The design of the study was descriptive survey. The population of the study was one thousand and eight hundred (1800) students. A sample of one hundred and fifty (150) students derived through convenience sampling technique was used for the study. Questionnaire was the instrument used for data collection of the study. Data generated from the study was analyzed with descriptive statistics using

tables, frequencies and percentages. Findings from the study showed that master students constituted the majority of the repository users, and that e-books are the most frequent used items. The study was revealed that the university's website and that there was low-usage frequency. The study recommended more awareness creation by the library. It also recommended advocacy about institutional repository and its benefits, as well as selective policy on what to include in the repository collection.

Manjunathan & Thandavamoorthy (2011) carried out a study on researcher's attitude towards depository in institutional repositories of Universities in Karnataka India. The study was carried in thirty-five universities in Karnataka, India. The objectives of the study were to find out the academic scholars awareness about open access, self-archiving, scholarly publishing and institutional repositories; to compare academic scholars attitudes of different disciplines, to study the factors influencing the academic scholars to deposit in institutional repositories and to find out the factors discouraging the academic scholars not to deposit in institutional repositories. The design of the study was descriptive survey and questionnaire was the instrument used for data collection. The population of the study was eight thousand, six hundred and eighty-one (8681) and a sample of two thousand (2000) was derived from the population through stratified random sampling technique. Data generated from the study was analyzed with descriptive statistics using frequency counts and percentages. The study revealed low awareness of institutional repository, high interest in contributing contents to the universities institutional repositories. It also revealed that lack of proper awareness, fear of plagiarism, preference for other publishing modes and lack of knowledge on how and what to deposit are among the factors that discourage use of institutional repository. The study recommended that universities should take a policy decision for setting up of open access institutional repositories, intensive awareness about use of institutional repository through seminars and workshops.

Dhanavandan & Tamizhchelvann (2013) carried out a research on awareness of institutional repositories and open access publishing in Annamalai University, India. The objectives of the study were to determine users awareness about institutional repository and open access publishing, determine users sources of awareness of institutional repository, identify motivating factors for using institutional repository and open access publishing and to find out strategies to develop and improve the institutional repository and open access publishing, as well as assess users satisfaction towards institutional repository and open access publishing. The descriptive survey research design and questionnaire were adopted in the study as

the design and instrument for data collection respectively. The population of the study was two hundred (200) and no sampling technique was adopted in the study. Data generated from the study were analyzed with descriptive statistics using frequency counts and percentages. Findings from the study showed that majority of the respondents were aware of institutional repository. The respondent's sources of awareness were seminars, workshops and conferences and their major reason for using the institutional repository was to get their works digitized. The study recommended more awareness creation to sustain and expand the respondent's level of awareness of institutional repository and open access publishing.

Achieng (2016) conducted a study on analysis of the usage of a digital repository in an academic institution. The purpose of the study was to investigate the usage of the digital repository resources by the various user groups in the University of Nariobi, Kenya and also determine the barriers to usage of the digital repository of the institution. The population of the study was seventy thousand (7,000) students spread across the different faculties of the university. A sample of two hundred (200) students from two user groups of undergraduate and postgraduate students were selected for the study through probability sampling technique. The design of the study was survey and questionnaire was the instrument used for data collection of the study. Data generated from the study was analyzed with descriptive statistics using percentages and arithmetic mean. Findings from the study showed that there is an under utilization of the e-resources, infrequent utilization of many products and services on the library portal. The study also revealed that independent variables of effectiveness, efficiency, satisfaction and awareness contribute to usage of the digital repository and e-resources. The study showed lack of awareness and lack of access to the computers as challenges to usage of the resources of the digital repository, more awareness creation was recommended in the study will aid the present study as it revealed challenges to usage of institutional repositories.

2.4 Summary of Review of Related Literature

During the review of related literature, books, journals, dictionaries and internet sources were consulted. The researcher looked at the concepts of awareness, institutional repository and academic activities. The review revealed that awareness is a state of having knowledge about a situation or existence of a thing. It showed that institutional repository is a place in an institution where the intellectual academic community are digitized and stored for use by end users both within and outside the institution. The review also showed that academic activity entails doing things connected to education or studies in

schools and universities. From the review of literature, it was evident that a state of awareness or having knowledge about existence of something has capacity to influence usage by those for whom it is meant for. Therefore awareness of the institutional repositories of the various institutions under study by their postgraduate students is crucial to their usage; thus justifying the concern of the researcher in carrying out the study.

It is evident from both the theoretical and empirical review of literature that there exist relevant literature on awareness and use of institutional repository for academic purposes. The review touched on awareness of institutional repository and emphasized the need for proper awareness creation to ensure adequate usage of institutional repositories of the various institutions. The review also highlighted possible sources of awareness creation or avenues through which awareness creation may be extended to users.

The review also highlighted various academic activities that may be carried out by students through institutional repositories and showed need for effective use of institutional repositories by postgraduate students. The literature review also revealed possible factors that may militate against awareness and use of institutional repositories which are partly related to lack of proper awareness creation. The theory adopted for the study also lent credence to power of proper awareness creation in accepting and using an innovation such as institutional repository which according to the literature, has not been popularized through effective use in universities in Nigeria.

The related empirical studies also highlighted importance of awareness creation in assuring effective usage. They also revealed possible sources of awareness creation, academic activities that may be carried out through institutional repositories, as well as the challenges that may work against efforts. The related empirical studies covered the period from 20-2017. The review showed that all former studies that are related to awareness and use of institutional repository for academic purpose by postgraduate students were carried out in universities outside the country. No other study known to the researcher has been carried out on awareness and use of institutional repository for academic purposes in universities in Anambra state, thus emphasizing that there is a gap in knowledge that needs to be filled hence this study.

3. METHODOLOGY

Descriptive survey research design was adopted for the study. It was considered appropriate for the study as only a proportion of the population was studied and the findings was then generalized to the entire population. The study was carried out in three universities in Anambra state that have approval from

the National Universities Commission to run postgraduate programs. They are Nnamdi Azikiwe University Awka, Chukwuemeka Odumegwu Ojukwu University Uli, and Madonna University Okija. The population of the study was comprised Three Thousand Nine Hundred and Seventeen (3917) post-graduate intakes of 2017 and 2018 academic year of the above named institutions.

The sample size of the study was selected through proportionate stratified random sampling techniques. The students were stratified based on their institutions and convenient sampling techniques was deployed in getting actual students to be used for the study. The strata were as follows:

Name of Institution   number of students selected

1. Nnamdi Azikiwe University Awka   300
2. Chukwuemeka Odumegwu Ojukwu University Igbariam   250
3. Madonna University Okija   10

Questionnaire was the instrument adopted for data collection. The data generated were presented, described and interpreted using percentages.

4. PRESENTATION AND INTERPRETATION OF QUESTIONNAIRE DATA
Table 4.1: Awareness of Institutional Repository by Postgraduate Students

| S/N	STATEMENTS	Strongly Agreed	Agreed	Disagreed	Strongly Disagreed
1	Institutional repository is a place for keeping published and unpublished academic output of an institution	91%	9%	-	-
2	Institutional repository facilities research	100%	-	-	-
3	Institutional repositories promotes the prestige and visbility of both researchers and their institutions	48%	14%	30%	8%
4	Institutional repository does not help research at all	-	-	67%	33%
5	Institutional repositories are currently administered in digital formats	69%	8%	21%	2%
6	Fees are not charged for one to publish in institutional repository	43%	20%	31%	6%
7	Students are allowed to use institutional repositories	39%	15%	33%	13%
9	Institutional repository has internet connection	76%	12%	10%	2%
10	Institutional repository is a place for keeping materials that are no more needed in the institution	22%	27%	32%	19%

From table 4.1 above, it can be deduced that Postgraduate students are aware of the existence of institutional repository. 100% of them strongly agreed that it facilitates academic research. 91% strongly agreed that institutional repository is a place for keeping published and unpublished academic output of an institution. There was a divided opinion as to if institutional repositories promotes the prestige and visibility of both researchers and their institutions, 48% strongly agreed whereas 30% disagreed. 69% of the respondents strongly agreed that institutional repositories are currently administered in digital formats. In the area of fees not being charged for publications in institutional repositories, the respondents had divided opinions (63% agreed and 37% disagreed). The same was applicable to if students were allowed to use the repository, 54% of the respondents agreed and 46% disagreed. Majority of the respondents agreed that institutional repository has internet connection and finally a divided opinion trailed the issue of if institutional repositories are a place for keeping materials that are no more needed in the institution. From the forgoing, the researcher was able to conclude that there is a great awareness of the existence of institutional repository in the Nigerian universities.

Table 4.2: Sources of Awareness of Institutional Respository

S/N	Sources of Awareness of Institutional Repository	Percentage
1	Librarians	93%
2	Colleagues	22%
3	School Bulletin Boards	9%
4	Thesis and Dissertations	17%
5	Lecturers	23%
6	Personal experience	41%
7	Observation	35%
8	Reading Documents	19%
9	Senitization programmes	14%
10	Books	17%
11	Journals	31%
12	Magazines	6%
13	Radio	7%
14	Television	7%
15	Internet	66%
16	Library Website	48%
17	Professional Bodies	34%
18	Workshops/Seminars and conferences	31%
19	Publishers	37%

Figure 4.1: Sources of Awareness of Institutional Repository
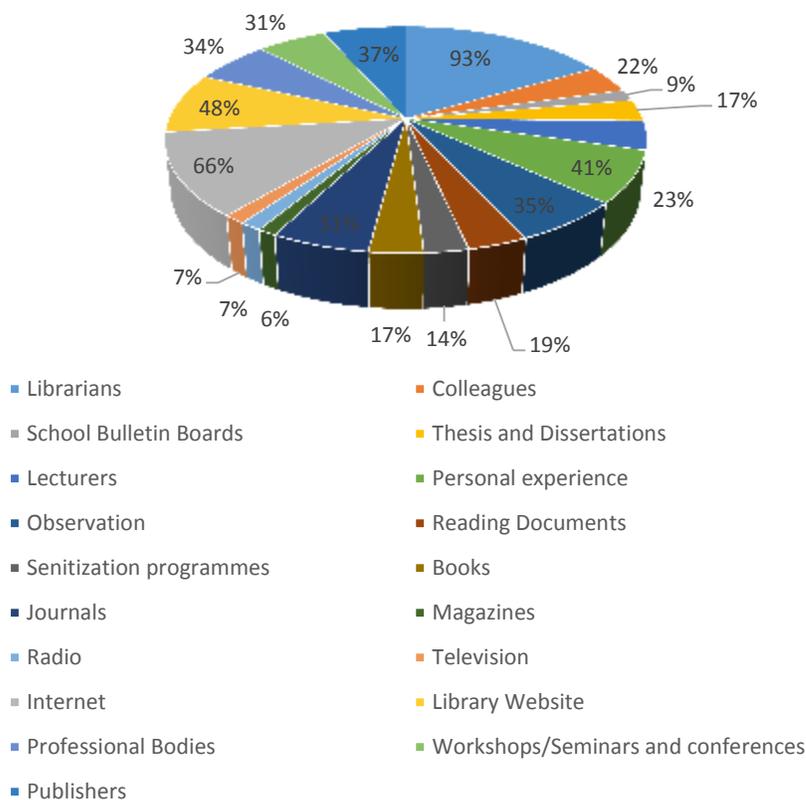
From table 4.2 and figure 4.1, it was seen that the highest source of awareness of institutional repository was through the librarians and the least was through magazines and televisions.

Table 4.3: Academic Activities carried out in Repository

S/N	Academic Activities carried out in Repository	Percentages
1	Retrieval of materials for Study	79%
2	Research Activities	84%
3	Collaboration with colleagues	41%
4	General reading activities	32%
5	Accessing Thesis/dissertations of the institution	27%
6	Accessing journal materials	58%
7	Depository research works	61%
8	Carrying out class assignments	16%
9	Accessing research works of other institutions	19%
10	Downloading of materials of interest	71%
11	To access conference papers and other documents	65%
12	To access information about the institution	81%
13	To share information	22%
14	To communicate finding of research	18%
15	To publish research works	33%

Figure 4.2: Academic Activities Carried out in Repository

- 1 Retrieval of materials for Study
- 2 Research Activity
- 3 Collaboration with colleagues
- 4 General reading activities
- 5 Accessing Thesis/dissertations of the institution
- 6 Accessing journal materials
- 7 Depository research works
- 8 Carrying out class assignments
- 9 Accessing research works of other institutions
- 10 Downloading of materials of interest
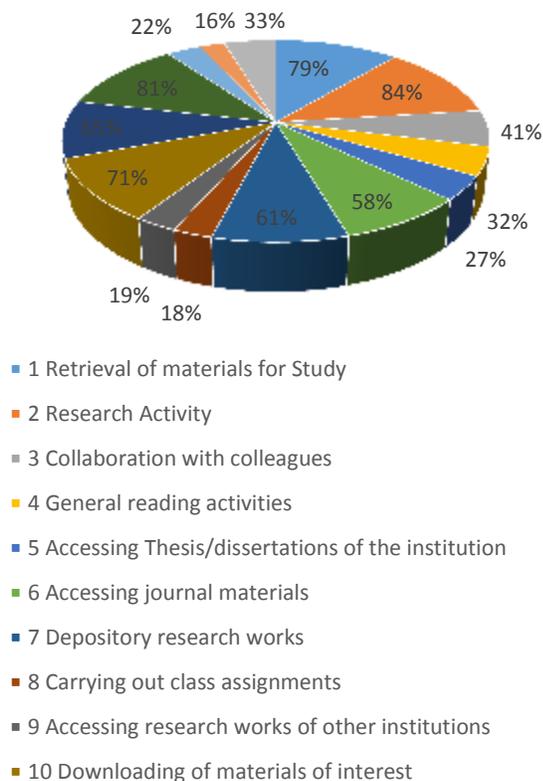
From table 4.3 and figure 4.2 showed that the activity carried out most in the repository is the research activities and the least is carrying out of class assignments.

5. CONCLUSION

The research titled Awareness and Usage of Institutional Repositories: A Panacea for Academic Research was carried to ascertain the level of awareness, sources of awareness and activities carried out in the in institutional repositories in Nigerian universities. The study found a high level of awareness of institutional repositories with librarians being the greatest source of the awareness. The study further found that institutional repositories are mostly used for academic research.

Institutional repository facilitates academic research and its being seen as a place for keeping published and unpublished academic output of an institution. It can promote the prestige and visibility of both researchers and their institutions if properly harnessed. However, some institutional repositories charge students for publications made in their repository and in some cases, students were not allowed to make use of the repository probably for the fear of being vandalized. Currently, most institutional repositories are administered in digital formats with the presence of the internet.

Finally, the study recommended that other source of awareness of institutional repository should well harnessed that greater efficiency in the creating of awareness and at the same time, the universities should work towards making accessibility and usage of repositories completely free without limiting usage to lecturers or certain class of people.

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