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Developing Institutional Repositories in University Libraries in Anambra State: Prospects and Challenges

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Abstract

The study ascertained the challenges and prospects of developing institutional repositories in University libraries in Anambra State, Nigeria using survey research design. The sample size for the study comprised 70 library staff in university libraries of Nnamdi Azikiwe University, Awka and Chukwuemeka Odumegwu Ojukwu University, Igbariam drawn using accidental sampling technique. Data were collected using Challenges to Development of Institutional Repository Questionnaire (CDIRQ) and Prospects of Development of Institutional Repository Questionnaire (PDIRQ) which were validated by three experts in Faculty of Education, Nnamdi Azikiwe University, Awka. In testing the reliability of the instrument, the Cronbach Alpha method was used. Reliability co-efficient values of 0.72 and 0.78 were obtained for CDIRQ and PDIRQ. Data were analyzed using mean. The findings of the study revealed that low bandwidth, poor funding, poor ICT skills, epileptic power supply, fear of copy right infringement, lack of IRS policy, fear of plagiarism etc are some of the challenges to the development of institutional repositories in university libraries. The findings of the study further revealed that multiple storage of institutional scholarly documents in a digital format, acceleration of dissemination of research information, increase in the use of research output of the students and teaching staff of a university, ease of editing of scholarly information, updating of scholarly information, amongst others are the prospects of the development of institutional repositories. Based on the findings of the study, it was recommended that government at all levels should provide adequate funds for the development of institutional repositories in universities in Anambra state.

Keywords

Institutional repositories, university libraries, academic libraries, libraries Anambra state

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Introduction

The trend digitization seems to have permeated every aspect of our national life so much so that interactions that used to be in the physical spaces have relocated to digital platforms. This transformation has further found expression in university libraries. In recent times within university libraries, there is an implementation of institutional repositories (IRs). Universities as institutions of higher learning place emphasis on research as one of their core functions apart from teaching and community services. Institutional Repositories (IR) are one of the technologies that developed by university libraries with a view to meeting the needs of the evolving role of the library as well as those of library patrons who are digital natives. Similarly, Aminu et al. (2022) defined institutional repositories as digital archives that provide the platform for the storage of intellectual output of universities.

Prior to the birth of institutional repositories, university libraries once collected and controlled these materials. Historically, university libraries have been institutions that have obtained monographs and journal materials to meet the researcher's needs (Digby, 2021). With the emergence of the digital age, the introduction of institutional repositories became a matter of necessity. The objective underlining the establishment of institutional repositories lies in the protection and preservation of the research outputs created by university members while aviling them for the consumption of library patrons. Bamigbola (2017) observed that "contents available in the repositories of Nigerian universities cut across many fields and include faculty lectures, inaugural lectures, guest lectures series, seminar papers, encyclopedia and dictionary, newspapers, newsletters, journals, theses and dissertations, conference proceedings, textbooks, book of abstract, bulletins, posters, realia, maps, photographs, models, banners, charts, illustrations and drawings, notebooks, patents and book chapters"

Institutional repositories keep its users abreast of recent developments in their areas of endeavor. More so, it enable them identify gaps in the existing body of knowledge while aviling them the requisite information that will enable them to carry out research in unexplored areas. Despite the relevance and prospects of developing institutional repositories in universities, Mensah and Chukwueke (2021) pointed out that not a few Nigerian universities have been grappling with management of their digital intellectual output such as journal articles, conference papers, reports, theses & dissertation, lecture notes, artworks, research notes and research data. More so, preliminary observations by the researchers as librarians showed that some public

universities in Anambra State are yet to fully explore the accruable potentials of institutional repositories in such a manner that it supports the research activities of its patrons; students and teaching staff inclusive. To this end, much as various studies have been conducted in Nigeria on challenges and benefits of the development of IRs, prominence has not been given to it in Anambra State, hence this study.

Purpose of the Study

The main purpose of the study is to ascertain the challenges and prospects of developing institutional repositories in University libraries in Anambra State. Specifically, the study sought to determine:

1. Challenges to the development of institutional repositories in University libraries in Anambra State.
2. Prospects of developing institutional repositories in University libraries in Anambra State.

Research Questions

The following research questions were formulated to guide the study:

1. What are the challenges to the development of institutional repositories in University libraries in Anambra State?
2. What are the prospects of developing institutional repositories in University libraries in Anambra State?

Literature Review

Institutional repositories are principally being used for acquiring, domesticating and disseminating scholarly pieces of information that are generated with the university intellectual environment. Thus, access to such scholarly pieces of information has the capacity to increase the usage of scientific information and authors' visibility (Ukwoma & Dicke, 2017). This is given the fact that institutional repository provides services that facilitate multiple storage and dissemination of information. Instructively, institutional repositories obviate the need for the use of wooden shelves for the storage and retrieval of vital information materials. Furthermore, it promotes swift access to digital materials both locally and globally. In this respect, universities do not have to contemplate space where library patrons will sit when they come to repository (Baro & Otiode, 2020).

Institutional repository promotes ease of editing, organizing and updating of information digitally. It reduces time and effort information managers expend on document management as well provides functions that make for authentic maintenance of document history in a way that will always meet legal requirements regardless of the

time being. Other prospects of the development of institutional repository include “the enabling of interdisciplinary approaches to research; showcasing the institution to interested constituencies – prospective staff, prospective students and other stakeholders; accelerating the dissemination of research information; allowing for collaboration with researchers around the world (Ugwunwa. & Yacob, 2023). Again, institutional repository may increase global visibility of a university. This is to the extent that publications emanating from a university increase the tendency of scoring high in web metrics rankings of universities.

The development of institutional repositories is not without its attendant challenges. Idiedo, et al (2024) observed that only few universities have successfully developed open access IRs to preserve and manage their intellectual outputs emanating from their universities. Furthermore, Idiedo, et al identified challenges such as inadequate fund, collecting contents for the IR, shortage of skilled ICT personnel and inadequate facilities. These have stood in the way of implementation of IR to the satisfaction of library patrons. Oguche (2018) and Mutsvunguma (2019) observed that the development of institutional repositories have been fraught with grave problems ranging from low Internet connectivity; software and hardware challenges; lack of highly skilled personnel; inadequate power supply; low bandwidth; legal copyright laws; poor funding; lack of organizational infrastructure and policies; project sustainability among others in many African countries. Similarly, Salau et al (2019) found that electronic theses and dissertations (ETD) initiatives in the repositories of federal government-owned universities have not made remarkable progress as digital libraries based on policy, content and system architecture. Worse still, the repositories housing the ETDs are also not compliant with the open archive initiative-protocol for metadata harvesting framework ((Aminu, et al 2022).

Studies (Mutsvunguma, 2019; Anene, et al 2020) have shown that despite the prospects of using IR, most universities in Africa have not aligned with the laudable innovation of institutional repositories (IRs). This could traceable to causative factors such as negative attitude of library managers, low level of awareness, inadequate funds, and ill-defined policy statements on submissions, matters of copyright and preservation. It further seems that the daily or weekly research outputs from universities such as inaugural lectures, projects, theses and dissertations and other valuable library information resources are not widely communicated to library patrons for their intellectual consumption. Lending credence to the afore-mentioned, Adeyemi,

et al (2017) stated that the existing institutional repositories in Nigeria have no policy that underlines their operation. Such policy document is expected to capture what to accept or reject, copyright issues, self or mediated archiving, submission and retrieval policies.

Studies have revealed that academics are not keen on self-archiving their research output without library mediation (Zhang, et al 2015; Baro, et al 2018). In other words, the research outputs of university scholars are sometimes, not deposited for public consumption. Similarly, Sambo, et al (2022) found that the major challenges to using IRs include unwillingness to deposit research materials, lack of awareness of publishers policy as regards depositing published works in IR, poor ICT skills, epileptic power supply, fear of copyrights infringement, absence of IRs policy hindering the submission of content to the IRs, financial constraints, fear of plagiarism and low bandwidth.

Collecting contents such as electronic theses, dissertations and journal articles from authors are major challenges to developing institutional repositories in Africa (Dlamini & Snyman, 2017; Anene, et al, 2020). For instance, if the submission of digital projects, theses and dissertations is a matter of obligation, Postgraduate Diploma (PGD) students, Master's and doctoral students will not be enthusiastic about the submission of their research works for use in the development of institutional repositories for fear that online access to their full-text research works will increase the chances of copyrights infringement.

Another potential challenge to the development of IRs in university libraries is lack of skilled man-power. Corroborating this, Anyaoku et al (2019), reports that more than half (12, 52.2%) of the responding institutions in their study indicated that their institutional repository lacked the requisite technical staff with the required skills to handle and manage the institutional repository. Put differently, skilled man power is key to the development of institutional repositories in universities. Sadiku, et al (2018) argued that developing and sustaining an institutional digital repository necessitates the state-of-the-art technological infrastructure, skilled manpower, and strong financial backing including ICT skilled user community.

Methodology

The current study used survey research design. The population for the study comprised 108 library staff in university libraries of Nnamdi Azikiwe University, Awka and Chukwuemeka Odumegwu Ojukwu University, Igbariam. The sample size for the study comprised 70 library staff in university libraries of Nnamdi Azikiwe University, Awka and Chukwuemeka Odumegwu Ojukwu University, Igbariam. Accidental sampling technique was used by the researcher to draw the sample for the study. Challenges to Development of Institutional Repository Questionnaire (CDIRQ) and Prospects of Development of Institutional Repository Questionnaire (PDIRQ). CDIRQ and PDIRQ are researcher-constructed sets of questionnaire with 10 items apiece. They were constructed in a way that the subjects responded in a four-point rating scale of Strong Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD). Face and content validations of CDIRQ and PDIRQ were done by three experts in Faculty of Education, Nnamdi Azikiwe University, Awka. The reliabilities of CDIRQ and PDIRQ were tested using Cronbach alpha method. This was achieved by administering 10 copies of CDIRQ and PDIRQ to 10 librarians in public libraries in Imo State. The internal consistency of the items in the CDIRQ and PDIRQ was determined using Cronbach statistics. The reliability coefficients of 0.72 and 0.78 were obtained which were high to confirm the CDIRQ and PDIRQ as reliable as they are consistent with the recommendation of Shrestha (2021) that the adequate threshold value for Cronbach alpha should be >0.70 . Data were analyzed using mean. The decision on the questionnaire items was based on item and cluster means relative to real limits of numbers as shown below:

Response	Rating Scale	Real Limit of Numbers
SA	4	3.50 - 4.00
A	3	2.50 - 3.49
D	2	1.50 - 2.49
SD	1	1.00 - 1.49

Results

Table 1

Challenges to the Development of Institutional Repositories in University Libraries

	Mean	Remark
1. Low bandwidth.	3.07	A
2. Poor funding.	3.72	SA
3. Poor ICT skills.	3.25	A
4. Epileptic power supply.	2.93	A
5. Fear of copy right infringement.	2.71	A
6. Lack of IRS policy.	2.84	A
7. Fear of plagiarism.	3.62	SA
8. Lack of awareness of publishers' policy for depositing published works in IR.	3.58	SA
9. Lack of IT infrastructure.	3.15	A
10. Lack of digital preservation plan.	3.30	A
Grand Mean	3.22	A

Data in Table 1 show that item 2 has the highest mean score of 3.72; indicating that most of the respondents are in strong agreement that poor funding is a major challenge to the development of institutional repositories in university libraries. In contrast, item 6 has the lowest mean score of 2.84; indicating that the least number of respondent agree that lack of IRS policy is a challenge to the development of institutional repositories in university libraries. The grand mean of 3.22 shows an agreement among the respondents on the above-listed items as challenges to the development of institutional repositories in university libraries.

Table 2

Prospects of the Development of Institutional Repositories in University Libraries

	Mean	Remark
1. Multiple storage of institutional scholarly documents in a digital format	3.49	A
2. Acceleration of dissemination of research information.	3.22	A

3. Increase in the use of research output of the students and teaching staff of a university.	3.65	SA
4. Ease of editing of scholarly information.	3.13	A
5. Updating of scholarly information.	2.91	A
6. Enabling of inter-disciplinary approach to research.	2.67	A
7. Increase in the global visibility of a university.	2.76	A
8. Ease of access to digital information.	2.80	A
9. Attraction of future research funding by institution.	3.56	SA
10. Enhancement of authors' images.	3.38	A
Grand Mean	3.16	A

Data in Table 2 show that item 3 has the highest mean score of 3.65; indicating that most of the respondents are in strong agreement that increase in the use of research output of the students and teaching staff of the university are the prospects of the development of institutional repositories in university libraries. In contrast, item 6 has the lowest mean score of 2.67; indicating that the least number of respondent agree that enabling of inter-disciplinary approach to research is one of the prospects of the development of institutional repositories in university libraries. The grand mean of 3.16 shows an agreement among the respondents on the above-listed items as prospects of the development of institutional repositories in university libraries.

Discussion

Challenges to the Development of Institutional Repositories in University Libraries

The findings of the study revealed that low bandwidth, poor funding, poor ICT skills, epileptic power supply, fear of copy right infringement, lack of IRS policy, fear of plagiarism, lack of awareness of publishers' policy for depositing published works in IR, lack of IT infrastructure and lack of digital preservation plan are some of the challenges to the development of institutional repositories in university libraries. Apparently, in a country like Nigeria where low bandwidth, funding and power supply

are recurring issues, the development of institutional development becomes difficult. This particularly worrisome given that an institution without functional institutional repositories will not have global visibility and can hardly attract research grants to enhance their research productivity. These have hampered the implementation of IR to the satisfaction of library users. Corroborating the findings of the current study Oguiche (2018) and Mutsvunguma (2019) observed that the development of institutional repositories have been fraught with grave problems ranging from low Internet connectivity; software and hardware challenges; lack of highly skilled personnel; inadequate power supply; low bandwidth; legal copyright laws; poor funding; lack of organizational infrastructure and policies; project sustainability among others in many African countries. Again, issues of poor legislations are rife in Nigeria which give impetus to fear of copy right infringement, lack of IRS policy, fear of plagiarism. The findings of the current study are consistent with those of Adeyemi, et al (2017) that the existing institutional repositories in Nigeria have no policy that underlines their operation.

Prospects of the Development of Institutional Repositories in University Libraries

The findings of the study revealed that multiple storage of institutional scholarly documents in a digital format, acceleration of dissemination of research information, increase in the use of research output of the students and teaching staff of a university, ease of editing of scholarly information, updating of scholarly information, enabling of inter-disciplinary approach to research, increase in the global visibility of a university, ease of access to digital information, attraction of future research funding by the university and enhancement of authors' image are the prospects of the development of institutional repositories. Apparently, the development of a thriving institutional repository by any university would guarantee them the afore-mentioned and by extension, satisfy the needs of both local and global library patrons. The findings of the study are consistent with those of Ugwunwa and Yacob (2023) that the development of institutional repositories: enables interdisciplinary approaches to research; showcases the institution to interested constituencies – prospective staff, prospective students and other stakeholders; accelerates the dissemination of research information; allows for collaboration with researchers around the world. Similarly, Ukwoma and Dicke (2017) found that IR promotes access to scholarly pieces of information and has the capacity to increase the usage of scientific information and authors' visibility.

Conclusion

The development of institutional repositories is key to institutional local and global visibility. However, it is challenged principally by poor funding, poor ICT skills, epileptic power supply, fear of copy right infringement, and lack of IRS policy among others. The implication on teaching is that prioritization of institutional repositories is an enabler in exposing lecturers to current trends in teaching that will make for effectiveness in the instructional delivery process in lie with global trend. The students will as well be exposed to blended learning in a manner that concretizes what has been learnt for global consumption. For research, the findings of the study will imply that there is vast opportunities for broadening the research horizons of students as researchers and lecturers as research supervisors.

Recommendations

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

1. Government at all levels should provide adequate funds for the development of institutional repositories in universities.
2. University authorities should organize seminars and workshops for librarians on the need to acquire the requisite skills that will enable them to key into the development of institutional repositories.
3. Ministry of Education should ensure the implementation of policies on capture what to accept or reject as well as copyright issues.
4. Government should ensure that IT infrastructure is provided for the development of institutional repositories in universities.
5. University authorities should ensure that constant power supply is provided for the development of institutional repositories in universities.

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