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Evaluating Institutional Readiness for Online Collaboration in Private University Libraries in Anambra State, Nigeria:

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ABSTRACT

This study evaluated institutional readiness for online collaboration in private university libraries in Anambra State, Nigeria, with particular attention to policy, infrastructure, and competency dimensions. The study aimed to determine the level of institutional readiness for online collaboration in terms of policies and guidelines, ICT facilities and infrastructure, skills and competencies, and training needs. The study adopted a qualitative research approach, which was appropriate given the exploratory nature of the inquiry, the study's geographical scope, and the characteristics of the study population. The study used a narrative research design, and researchers collected data from eleven purposively selected participants using a semi-structured interview guide. The researchers analysed the data using content analysis. The findings revealed that, except at Madonna University, Okija; Paul University, Awka; University of the Niger, Umunya; and Shanahan University, Onitsha, the private university libraries studied lacked explicit policies or guidelines governing the use of online collaboration tools for information resource development. The findings further established that the private university libraries studied had the requisite ICT facilities and infrastructure for online collaboration. In addition, the study found that the libraries had librarians with the skills and competencies needed to use online collaboration tools effectively for information resource development. The study concludes that while librarians demonstrated awareness of online collaboration tools and a strong disposition to adopt them, enabling policies were lacking, and persistent infrastructural and capacity constraints tempered overall institutional readiness. It further concludes that increased investment in ICT infrastructure and ongoing staff development are essential to adopt and sustain the use of online collaboration tools effectively. The study therefore recommends fostering strong collaboration among library management, university authorities, and ICT directorates to build digital capacity and support the sustainable use of online collaboration tools across library services.

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Evaluating Institutional Readiness for Online Collaboration in Private University Libraries in Anambra State, Nigeria: Policy, Infrastructure, and Competency Dimensions

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Keywords: Institutional Readiness, Online Collaboration, Policy, Infrastructure, Competency, Private University Libraries, and Anambra State.

INTRODUCTION

UNIVERSITY LIBRARIES HAVE HISTORICALLY SERVED AS INSTITUTIONAL HUBS FOR ORGANISING, PRESERVING, AN

A PARTICULARLY SIGNIFICANT DEVELOPMENT IN THIS CONTEXT IS THE ADVENT OF ONLINE COLLABORATION TOO

IN NIGERIA, PRIVATE UNIVERSITY LIBRARIES ARE INCREASINGLY PROMINENT IN THE HIGHER EDUCATION LANDSCA

ONLINE COLLABORATION TOOLS HAVE BECOME INDISPENSABLE TO CONTEMPORARY LIBRARY PRACTICE, PARTIC

DESPITE THE GROWING ADOPTION OF ONLINE COLLABORATION TOOLS IN MUCH OF THE DEVELOPING WORLD, PR

THESE CHALLENGES MAY IMPEDE READINESS TO ADOPT ONLINE COLLABORATION TOOLS, THEREBY LIMITING OP

RESEARCH QUESTIONS

- What is the level of institutional readiness for online collaboration in private universities in Anambra State, in terms of policy/guidelines?
- What is the level of institutional readiness for online collaboration in private universities in Anambra State in terms of ICT facilities/infrastructure?
- What is the level of institutional readiness for online collaborations in private universities in Anambra State in terms of skills and competencies?

PURPOSE OF THE STUDY

This study aims to assess the institutional readiness of private universities in Anambra State for online collaborations. Specifically, the study seeks to:

- Determine the level of institutional readiness for online collaborations in terms of policy/guidelines.
- Determine the level of institutional readiness for online collaborations in terms of ICT facilities/infrastructure.
- Determine the level of institutional readiness for online collaborations in terms of skills and competences.

Review of Related Literature

The literature conceptualises online collaboration as using the internet and digital tools to enable individuals to work together from different locations and devices by accessing virtual work environments and shared online workspaces (Kuhn, 2020; Lai, 2021). The rise of social networking, Web 2.0 technologies that emphasise user-generated content, and virtual technologies has driven its emergence as a significant phenomenon, with Information and Communication Technology (ICT) serving as a critical enabler. Collaboration has increasingly been recognised as an important educational outcome in its own right, not merely a means

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of developing or assessing knowledge, and is described as a skill that activates learning mechanisms such as induction, deduction, and associative learning (Dillenbourg, 2019; Hunter, 2016). Research demonstrates that collaboration exerts influential effects on learning and knowledge retention (Fall, Webb, & Chudowsky, 2017; Rojas-Drummond & Mercer, 2020; Saner et al., 2019; Webb, 2019), and the literature claims that it offers distinct advantages over individual problem-solving, including effective division of labour, incorporation of multiple sources of knowledge and perspectives, and enhanced creativity and quality of solutions (OECD, 2023).

Several influential definitions of collaboration emerge from the literature. Roschelle and Teasley (2019) define it as a coordinated, synchronous activity resulting from a continued attempt to construct and maintain a shared conception of a problem, while Dillenbourg (2019) defines it as a situation in which two or more people learn, or attempt to learn, something together. Central to these definitions is the concept of the joint problem space, in which group members enter a collaborative state they must maintain until they solve the problem or reach an outcome. A critical conceptual distinction separates collaboration from cooperation, which, although often used synonymously (Lai & Viering, 2022), differ in important respects. Cooperation typically involves a division of labour among group members, where a task is divided into individually manageable subparts that are subsequently assembled into an outcome; in cooperation, group members need not maintain a mutual understanding of task goals, as individuals focus on their subtasks, and asymmetric contributions are permitted. Collaboration, by contrast, entails inherent flexibility in roles and responsibilities across subtasks to achieve a goal (Lai, 2022). The literature further distinguishes between collaboration as process and collaboration as outcome, with the collaborative state relating to process.

The literature defines a collaboration tool as an integrated package of one or more collaboration technologies (Mittleman, 2018), while Tella (2020) describes collaboration tools as second-generation web developments designed to facilitate communication and secure information sharing, interoperability, and user-centered design. For this dissertation, collaboration tools are defined as tools that enable remote collaboration and may be hardware devices or software programmes. According to Robbins and Dustdar (2018), a collaborative tool must fulfill four basic requirements to facilitate collaborative work: connectedness, awareness, sharing, and communication. The literature also notes that the rapid emergence of new tools and the equally rapid demise of those that fail to reach a critical mass of users necessitate identifying the characteristics of effective tools, which may both uncover tools already in use within disciplines and guide developers in creating next-generation tools.

Readiness is being prepared to do something, or properly prepared and available for use (Merriam-Webster, 2023), while Weiner (2019) defines it as a condition in which individuals within an organisation are psychologically and behaviourally prepared. Readiness is a key element in implementing a new activity, programme, or policy, since implementation necessarily entails change from the old to the new or from nothing to something (Fixsen, Blasé, Friedman, & Wallace, 2015). The literature emphasises that successful implementation requires readiness from both staff and managers, and that staff and managers' attitudes towards change, along with organisational factors such as planning, resources, and leadership, shape implementation success (Helfrich et al., 2011). Kirke (2023) similarly asserts that managing change, whether small or large, is critical, and that how change is managed determines its success or failure.

Readiness for online collaboration assumes special significance in the context of university library services. Many services originated within the library to support open access, encouraging researchers to deposit copies of their publications, including journal articles, research reports, conference papers, and theses. Conceptually, institutional readiness can address long-term data preservation, but for this to happen, universities must recognise such services as integral to their data management processes and support them with ongoing funding. The literature stresses that funding generally needs to increase to support the development and purchase of appropriate equipment, and the training and employment of staff with the requisite skills. Technology readiness (TR) is defined as people's tendency to hold and use new technologies for achieving goals in home life and at work (Lai, 2017).

The literature distinguishes between different levels at which readiness processes take place: the individual, work group, and organisational levels (Rafferty, 2023), or more broadly, between the individual and organisational levels. These levels are intertwined and mutually influential. Antecedents of readiness fall into several categories: structure and culture, leadership, resources, local determinant analysis, communication, and the presence of an innovation champion or leader. The overview shows that most antecedents relate to organisational structure, culture, and leadership. In the existing literature on challenges, there is a strong focus on individual readiness for change rather than on organisational readiness, and barriers are diverse, most often falling under structure and culture, resources, and communication.

Collaboration is difficult to define and implement, and researchers often use it interchangeably with related terms such as cooperation, partnerships, alliances, joint ventures, and research consortia (IBHE, 2020). In the literature, collaboration is an umbrella term encompassing various forms and levels of collaboration. Several theoretical frameworks operationalise collaboration readiness and its tenets at the individual level, with the most commonly cited gravitating towards larger behavioural

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characteristics analysis (Camarinha-Matos, 2017). Two principal approaches emerge from the literature. The behaviour-based approach (Rosas, 2018) identifies three factors as the foundation of collaboration readiness: collaboration preparedness, competency fit, and willingness to collaborate. The competency/resources-based approach (Romero, 2019) defines collaboration readiness as evidence reflected in the provision of staff, budget, training, technology, and other resources to support collaboration, based on the quality and effectiveness of past and current collaborative activities across organisational boundaries. This approach does not exclude behavioural characteristics, and the literature notes that transferring towards more collaborative environments requires a well-developed collaborative culture encompassing openness, commitment, leadership, trust-building, self-learning, continuous training, long-term and global vision, effective communication, knowledge sharing, and innovation (Romero, 2018).

Finally, the literature identifies success factors for technology transfer, including organisational capabilities such as recognising the value of a technology, engaging in inter-organisational interactions (i.e., collaboration) (Tatikonda, 2023), and maintaining an open organisational attitude towards innovation (Heslop, 2021). Organisational factors, including leadership attitudes, staff resources, organisational stress, regulatory and financial pressures, management style, and tolerance for change, contribute to barriers to transferring research or technology into practice. Furthermore, managers' risk tolerance and positive self-concept have been found to be the strongest predictors of whether employees will accept large-scale changes within an organisation (Simpson, 2022).

In synthesis, the literature establishes that online collaboration is a multifaceted phenomenon encompassing technological, behavioural, and organisational dimensions. Readiness for online collaboration is conceptualised as a multidimensional construct involving policy, infrastructure, and competency considerations at both individual and organisational levels. While theoretical frameworks exist for operationalizing collaboration readiness, most notably the behaviour-based and competency/resources-based approaches, the literature predominantly focuses on individual readiness for change, with comparatively little attention to integrating individual and organisational readiness. Furthermore, the literature underscores that successful implementation of online collaboration tools in university libraries depends on adequate funding, appropriate infrastructure, ongoing training, supportive leadership, and a collaborative organisational culture. These insights provide the theoretical and conceptual foundation for the present study's investigation of institutional readiness for online collaboration in private university libraries in Anambra State, Nigeria.

METHODOLOGY

This study adopted a qualitative methodology grounded in the interpretive research paradigm, which holds that individuals construct social reality through the meanings and interpretations they attach to their experiences (Creswell & Poth, 2018). The qualitative approach was appropriate because the study sought to explore the multidimensional nature of institutional readiness for online collaboration, a context-dependent, value-laden phenomenon not readily amenable to quantification. Rather than measuring readiness numerically, the study sought to understand how University Librarians perceive, interpret, and articulate the policy, infrastructural, and competency conditions that shape their institutions' capacity for online collaboration.

The study employed a narrative-based research design. Narrative inquiry is a qualitative approach that seeks to understand phenomena through participants' stories, accounts, and lived experiences (Clandinin & Connelly, 2000). This design was appropriate because it enabled the researcher to elicit rich, detailed, contextualised accounts from university librarians about their institutions' readiness for online collaboration. Through narrative, participants articulated not only the objective conditions within their libraries but also the subjective meanings, challenges, and aspirations that inform their professional practice. Thus, narrative design facilitated a holistic, nuanced understanding of institutional readiness that purely descriptive or survey-based approaches would have made difficult to achieve.

The study population comprised University Librarians in the eleven (11) functional private university libraries in Anambra State, Nigeria. The study purposively selected University Librarians as the unit of analysis because they hold strategic leadership positions within their institutions and have comprehensive knowledge of institutional policies, infrastructure, and staff competencies. As chief custodians of library operations, they are uniquely positioned to provide authoritative accounts of their libraries' readiness for online collaboration. The study selected Anambra State as the geographical scope because it has a relatively high concentration of private universities in Nigeria's South-East geopolitical zone, making it a suitable context for investigating institutional readiness in private university libraries. The study used purposive sampling. Purposive sampling, also called judgmental sampling, is a non-probability sampling method in which participants are selected based on their knowledge, expertise, or relevance to the research phenomenon (Patton, 2015). In this study, the technique was used to select University Librarians who met predetermined inclusion criteria, namely: (a) serving as the substantive University Librarian of a functional private university in Anambra State; (b) possessing direct oversight of library policy, infrastructure, and personnel; and (c) demonstrating familiarity with online collaboration tools and practices. Given the small, well-defined population, purposive

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sampling ensured that only the most information-rich respondents were included, enhancing the depth and credibility of the data collected.

The data collection instrument was a semi-structured interview guide. The semi-structured format was adopted because it gave the researcher flexibility to probe emerging issues while ensuring that all key thematic areas- policy and guidelines, ICT facilities and infrastructure, and skills and competences- were systematically addressed across all interviews. The study developed the interview guide from the research questions and objectives and validated it with experts in library and information science and qualitative research methodology. Interviews were conducted in person or via video conferencing, depending on each participant's availability and preference, and were audio-recorded with the respondents' informed consent. Each interview lasted between forty-five and sixty minutes and was transcribed verbatim for analysis.

Data collected were analysed using content analysis. Content analysis is a systematic, objective method for analysing textual data by identifying, coding, and categorising patterns of meaning (Krippendorff, 2018). In this study, the transcribed interview data were subjected to thematic content analysis, which involved the following iterative steps: (a) familiarisation with the data through repeated reading of transcripts; (b) generation of initial codes based on recurring ideas and expressions; (c) grouping of codes into categories and sub-categories in alignment with the research questions; (d) identification and refinement of themes; and (e) interpretation of themes in relation to the research objectives and existing literature. Direct quotations from participants illustrated and substantiated the themes, preserving the authenticity and richness of participants' accounts.

RESULTS AND DISCUSSION

Readiness on policy on the use of online collaborative tools: Participants were asked to indicate whether there is a policy guiding the use of online collaborative tools. The results indicated that most participants reported that a policy for using online collaborative tools exists in both written and unwritten forms. In contrast, a few participants reported that no policy exists. However, a committee has been established to develop one. However, the smallest category of participants reported no policy, and some were unaware of its existence. So, according to direct quotations of the participants

P1 "Yes, there is a policy developed by the university librarian regarding the use of online collaboration tools""

P2 "There is a policy guiding the online collaboration tools for information resources development"

P3 "Yes, the library has a policy" 84

P4 "Actually, no for now, but committee members were inaugurated to start the process"

P5 "No, I am not aware of any"

P6 "There is no policy guiding the online collaboration tools for information resources development"

P7 "Not that, but efforts are being made to step up for the full implementation of online collaboration tools"

P8 "Yes, there is, but not in action"

P9 "Yes, the library is planning to adopt a policy on the use of online collaboration in order to develop the information resources of our library"

P10 "Yes, there are currently some efforts to develop a policy concerning the use of online collaboration tools for information resources development"

P11 "Currently available"

The above analysis revealed that most private university libraries in Anambra State, Nigeria, had written policies or regulations governing the use of online collaboration tools. This suggests that participants used online collaboration tools in line with these regulations or policies.

4.3.2 Readiness on infrastructure and ICT facilities

Participants were further asked about the readiness of infrastructure and ICT facilities required for using online collaboration tools for information resources development in their university libraries. The results show that most participants reported that their university libraries' readiness, in terms of available ICT facilities for information resource development using online collaborative tools, was high. Some participants' feedback on this question varied.

P1: "Sure they are readily available"

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P2: "Yes, they are"

P3: "There are"

P4: "We have available resources"

P5: "Yes, resources are available"

P6: "There are"

P7: "There is abundant infrastructure"

P8: "Of course there is availability of the infrastructure"

P9: "Yes, they are"

P10: "Presence of infrastructure"

P11: "We have enough infrastructure that supports online collaboration tools for resource development"

On the readiness of infrastructure and ICT facilities at their university libraries, all participants 1-11 indicated that infrastructure supporting online collaboration tools for resource development is available. The analysis revealed that ICT infrastructure facilities supporting online collaboration tools are available in private university libraries in Anambra State, Nigeria.

Similarly, participants were asked about the skills and competencies required to adopt and use online collaboration tools. Participants' feedback on this question varied. On the skills and competencies for effective use of online collaboration tools at their university,

P1 "We have librarians with technical skills with different types of online collaboration tools""

P2 "We have librarians who are good at communication skills in order to communicate the idea or knowledge effectively"

P3 ""We have skills that help us work effectively in another virtual environment""

P4 ""Our librarians are good in internet skills, ability to use computer effectively""

P6 "Indicated that their librarians were research, library services, and ICT-oriented.

P7 ""We have librarians that have basic computer knowledge, i.e., to know how to receive and send emails, WhatsApp messenger, and searching techniques""

P8 and 10: Our librarians have ICT skills and related technology for effective digital resource development.

P9 "Our librarians have Knowledge of e-resources/databases skills and participation"

P11 "We have librarians that have online communication/interviewing skills, social media skills""

The above analysis clearly indicates that university librarians possess the skills and competencies to use online collaboration tools effectively. This shows that Librarians were capable of using online collaboration tools for effective resource development in the private universities in Anambra State, Nigeria

DISCUSSION OF THE FINDINGS

INSTITUTIONAL READINESS FOR ADOPTION OF ONLINE COLLABORATION TOOLS

The findings revealed that private university libraries in Anambra State, Nigeria, except Madonna University, Okija; Paul University, Awka; University of the Niger, Umunya; and Shanahan University, Onitsha, have policies or guidelines that guide the use of online collaboration tools for information resources development in those university libraries. The findings corroborate Cassel (2023), who suggests that libraries should establish an online collaboration tool policy for information resources development to determine service parameters. These guidelines include the library's decision on how much time a staff member should spend on a question and what the user should be told once the library determines that the search is extensive. It also acknowledged Uutoni (2024), who found that policies and guidelines provide direction and recommendations for effectively implementing and managing online collaboration tools for information resources development.

The general findings revealed that ICT infrastructure facilities are available and required for using online collaboration tools for information resources development in private university libraries in Anambra State, Nigeria. The findings of this study

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corroborated the work of Saffady (2015), who noted that in order to develop online collaboration tools for information resources in academic libraries, various online databases, information products, computer storage devices on which information repositories reside, computerised networked library systems, the Internet, compact disk ROM, information products, database servers, online catalogues, and collections of computers and adequate technical support are technologies that are needed for the establishment of successful online collaboration tools for information resources in academic libraries. This study's findings concur with Yonus (2020), who found that libraries must develop and maintain strong ICT infrastructure to improve performance.

This study's findings contradicted Johnson Dei (2020), who found strong awareness and deep appreciation for m-tech library services among library management and students; however, libraries have not implemented m-tech-based services for various reasons. These include inadequate ICT infrastructure, a skills gap due to limited training, a lack of a policy framework for adopting the technology, and the challenge of convincing university management to accept it. As a result, the study recommended that libraries invest more in ICT infrastructure, specifically m-tech infrastructure, and build their human resource base through recruitment and professional training in emerging technologies.

The study's findings align with Rodwell (2017), who notes that as library services and the digital environment change, librarians must develop the technological skills required by current practices. Rodwell further states that sound, up-to-date subject expertise, in the broad sense, allows the librarian to be a 'dynamo' in the information-gathering process. Subject expertise required for good service needs to be analysed. Such expertise goes beyond mere broad- or narrow-subject knowledge. It involves an understanding of the dynamics of production and dissemination of information in a particular field and how it is received and accessed by clients.

The general findings further established that private university libraries in Anambra State, Nigeria, have skilled and competent librarians who can effectively use online collaboration tools for information resources in their university libraries. This study's findings contradicted Moyo (2016), who found that online innovation in libraries is labor-intensive because helping a library user takes a lot of time. Sometimes a librarian must search for the user or compile documents, then send them to the user. As a result, many libraries opt to hire more staff or collaborate with other libraries to share these services. Uutoni (2018) argues that staffing is an important factor in the digital age because new services, such as virtual services, require additional staff. Libraries could hire new staff, or ask existing staff to take on additional responsibilities. He supports this by stating that training is important because new technology-driven innovations in libraries require specific skills.

CONCLUSION

Based on this study's findings, private university libraries in Anambra State, Nigeria, demonstrate a discernible level of readiness to adopt and use online collaboration tools for information resource development. This readiness is evidenced by the availability and deployment of a variety of digital collaboration platforms, including shared workspaces, communication applications, web conferencing tools, and cloud-based resource-sharing systems, which University Librarians reported using to varying degrees in their professional practice. The study further concludes that while dispositions toward online collaboration are generally positive, a constellation of interrelated challenges significantly constrains the effective and sustained use of these tools. These include inadequate ICT infrastructure, limited technical support, pervasive training gaps among library personnel, and other institutional barriers-such as insufficient funding, absent or poorly articulated policies, and limited management commitment that collectively impede the successful implementation of online collaboration tools.

The study therefore concludes that readiness for online collaboration in private university libraries in Anambra State is best characterised as emergent rather than fully established. While the foundational elements of readiness-awareness, willingness, and partial infrastructure-are present, the institutional conditions needed for optimal, sustainable use remain underdeveloped. This conclusion underscores the imperative for deliberate, strategic, and multidimensional interventions if private university libraries are to harness the full potential of online collaboration tools for information resource development.

Recommendations

Based on the findings of this study and in alignment with the research questions, the following recommendations are made to enhance institutional readiness and the adoption of online collaboration tools for information resource development in private university libraries in Anambra State, Nigeria:

1. Library management, in collaboration with university management and ICT directorates, should strengthen institutional policies that support and regulate online collaboration. Such policies should set clear objectives, define roles and responsibilities, establish data security and intellectual property protocols, and provide a framework for systematically integrating online collaboration tools into library operations. At the same time, there is an urgent need for increased, sustained investment in ICT

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infrastructure, including reliable internet connectivity, adequate hardware and software resources, and dedicated technical support services.

2. There is a need to promote continuous professional training and capacity-building programmes to enhance librarians' digital skills and competencies required for the effective utilisation of online collaboration tools. Such programmes should be systematic, needs-based, and tailored to the specific technological and professional contexts of private university libraries. They should cover not only technical skills, such as operating collaboration platforms and managing digital resources, but also higher-order competencies, including digital literacy, online communication etiquette, collaborative project management, and the ethical use of digital tools. Training should be delivered through a combination of in-house workshops, external professional development opportunities, and peer-learning initiatives, and institutionalised as a regular feature of library staff development rather than a one-off intervention.

3. University management and ICT directorates should establish dedicated technical support structures for library personnel. The lack of prompt, reliable technical assistance was identified as a major barrier to effectively using online collaboration tools. A dedicated support unit, staffed by personnel with both technical expertise and an understanding of library operations, would reduce downtime, boost user confidence, and help integrate collaboration technologies more smoothly into daily workflows. Such a unit should also periodically maintain, upgrade, and evaluate collaboration platforms.

4. Given the resource constraints that characterise many private university libraries, there is considerable merit in fostering inter-institutional collaboration among private universities in Anambra State and beyond. Consortia arrangements, shared purchasing agreements, and joint training programmes can help libraries pool resources, share expertise, and achieve economies of scale that would be unattainable individually. University Librarians should therefore explore formal and informal collaborative partnerships with counterparts in other institutions, and management should support such initiatives as a strategic way to enhance collective readiness for online collaboration.

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Not applicable. No human participants or vertebrate animals were involved in this computational study.

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