

Information Technology Self-Efficacy and Library Portal Use in Nigerian Universities

Adenike Elizabeth Ajisebutu¹, Adebowale Adetayo^{2*}, Oyekanmi Gabriel Okediji³, Augustine I. Enamudu⁴

¹Tai Solarin University of Education, Ogun State, Nigeria

²Adeleke University, Osun State, Nigeria

³Federal College of Education Iwo, Osun State, Nigeria

⁴Afe Babalola University, Ekiti State, Nigeria

*Corresponding Author: adebowale.adetayo@adelekeuniversity.edu.ng

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Abstract: This descriptive cross-sectional survey aimed to investigate the relationship between information technology self-efficacy and the use of library portal services among undergraduate students in selected universities in South-West Nigeria. A cross-sectional survey used stratified sampling to select 658 undergraduates from three Nigerian universities: University of Ibadan, University of Lagos, and Babcock University. The results revealed a high level of IT self-efficacy among respondents (mean=3.48) and significant use of library portals, particularly for research needs like finding scholarly materials (mean=3.50), accessing indexing services (mean=3.43), and seeking reference assistance (mean=3.39). Library computers were the most preferred access point (mean=3.11). A strong, significant positive correlation was found between IT self-efficacy and library portal use ($r=0.609$, $p<0.05$), indicating that greater self-efficacy in using IT corresponded with higher utilization of library portals and their services. The findings highlight the importance of fostering IT skills and self-confidence among students to facilitate effective use of digital library resources.

Keywords: Information Technology Self-Efficacy, Library Portal Services, Undergraduates, Nigeria, Digital Resources

INTRODUCTION

The advent of the digital age has revolutionized the landscape of academia, transforming the way information is accessed, disseminated, and utilized. University libraries, once predominantly physical repositories of knowledge, have undergone a remarkable transformation, embraced the digital realm and adapted to the evolving needs of students and researchers. At the forefront of this paradigm shift lies the development of comprehensive online library portals, serving as gateways to a vast expanse of electronic resources and services.

While the development of comprehensive online library portals has opened up new horizons for academic exploration, the effective utilization of these resources may be influenced by users' self-efficacy in navigating and leveraging information and communication technologies (ICTs). Self-efficacy, a concept rooted in Bandura's Social Cognitive Theory, refers to an individual's belief in their capabilities to organize and execute courses of action required to attain desired outcomes (Bandura, 1977). In the context of library portal services, information technology (IT) self-efficacy could potentially play a role in empowering students to confidently navigate digital interfaces, locate relevant resources, and leverage the plethora of services offered through these online platforms.

Previous studies have suggested a link between IT self-efficacy and the successful adoption and use of technology-based systems (Sendogdu & Koyuncuoglu, 2022; Shih, 2006). Individuals with higher levels of computer self-efficacy have been found to positively relate to learning performance and engagement (Chen, 2017). However, the extent to which this relationship holds true in the context of library portal services, particularly in the Nigerian higher education landscape, warrants further investigation.

In Nigeria, where universities are actively investing in the development and enhancement of digital library infrastructures, understanding the interplay between students' IT self-efficacy and their utilization of library portal services becomes crucial. This understanding can inform strategies to enhance digital literacy, foster an environment conducive to the effective exploitation of these invaluable resources, and ultimately contribute to the advancement of knowledge and academic excellence within the nation's higher education institutions. By exploring the relationship between IT self-efficacy and the use of library portal services in selected universities in South-West Nigeria, this study aims to shed light on the factors influencing students' adoption and utilization of these digital platforms.

Statement of Problem

Despite significant investments in digital library resources and online portals by Nigerian universities, there is a concerning underutilization of these valuable academic tools among undergraduate students (Ogunbodede & Oribhabor, 2022). This underutilization represents a critical problem, as it hampers students' access to crucial information resources, potentially impacting their academic performance and research capabilities. Moreover, it signifies an inefficient use of limited institutional resources in a country where educational funding is often constrained. The root cause of this underutilization remains unclear, but it may be linked to students' levels of information technology self-efficacy. While studies in other contexts have shown correlations between IT self-efficacy and technology adoption (Sendogdu & Koyuncuoglu, 2022; Shih, 2006), the specific dynamics within Nigerian universities are not well understood. This lack of understanding prevents institutions from developing targeted strategies to improve students' engagement with library portals and digital resources.

Furthermore, the unique challenges faced by Nigerian students, such as inconsistent internet access, varying levels of prior exposure to technology, and potential cultural factors influencing technology use, may complicate the relationship between IT self-efficacy and library portal utilization. Without a clear understanding of these factors, universities struggle to implement effective interventions to boost digital resource usage. This study aims to address this problem by investigating the relationship between IT self-efficacy and library portal use among Nigerian undergraduates. By uncovering the factors influencing students' utilization of these resources, the research will provide valuable insights for developing strategies to enhance digital literacy, improve the design and accessibility of library portals, and ultimately increase the effective use of digital academic resources in Nigerian universities.

Objectives

The present study sought to investigate the relationship between IT self-efficacy and the use of library portal services among undergraduate students in selected universities in South-West Nigeria. Specifically, the objectives were to: assess the level of IT self-efficacy among undergraduates; examine the extent to which they use library portal services; identify their preferred access points for these services; and determine the relationship between IT self-efficacy and library portal utilization.

Research Questions

1. What is the level of information technology self-efficacy among undergraduate students in selected Nigerian universities?

2. To what extent do undergraduate students in these universities use library portal services?
3. What are the preferred access points for library portal services among undergraduate students in the selected Nigerian universities?

Hypothesis

H₀: There is no significant relationship between information technology self-efficacy and use of library portal services among undergraduates in selected universities in South-West, Nigeria.

LITERATURE REVIEW

Introduction to Library Portal Services

Academic libraries have traditionally provided computers for students to access their collections and facilitate various aspects of studying (Thompson, 2012). However, with the advent of mobile devices and the personalization of the internet, many colleges and universities have redirected their traditional campus websites toward marketing while developing web portals for their students, faculty, and staff (Cunningham & Stoffel, 2004). These web portals offer new and promising ways to access a variety of campus services, including library resources and services. Library portal services have become increasingly important in academic institutions as they provide a centralized platform for students, faculty, and staff to access a wide range of library resources and services. These portals serve as gateways to digital collections, databases, e-journals, e-books, and research tools, making it easier for users to navigate and locate the information they need.

Library portals typically offer a range of functions and features to support academic research and learning. One of the primary functions is providing access to various databases, e-journals, and e-books subscribed to by the library. These digital resources are essential for students and researchers to access up-to-date and scholarly information in their respective fields. Additionally, library portals often include research tools such as citation managers, subject guides, and online tutorials to assist users in their research process. Some portals may also feature personalization options, allowing users to create customized accounts, save their search histories, and receive notifications about new resources or services. Furthermore, library portals can serve as a communication platform, providing news and updates about library events, services, and resources. They may also offer virtual reference services, allowing users to ask questions and receive assistance from librarians online.

Despite the increased ownership of mobile technology by students, research has shown that they still prefer to use desktop computers in the library (Thompson, 2012). This finding suggests that library portal services accessed through desktop computers remain relevant and valuable to students. Moreover, studies have indicated that students who use computers in the library are more likely to utilize other library services and physical collections (Thompson, 2012). This highlights the importance of library portal services in encouraging the overall engagement and utilization of library resources by students.

While library portals aim to enhance access, their adoption and effective utilization remain an ongoing challenge. Chen & Chengalur-Smith (2015) conducted a longitudinal study examining undergraduate usage of a university library portal before and after an intervention involving information literacy training. They found that user satisfaction positively influenced portal usage after the intervention, while the impact of voluntariness became less significant. Nonetheless, the availability of competing resources continued to negatively affect portal adoption. Importantly, current portal use was associated with increased user satisfaction and likelihood of continued future use. Coates (2016) also assessed students' perceptions and behaviors related to library portals through surveys and interviews. The study involved a course that integrated information literacy concepts, indicating potential benefits of targeted training. Chen (2019) specifically explored undergraduates' experiences using mobile apps for searching library catalogs, finding them efficient despite limited prior adoption among students. Adeyinka (2019) focused specifically on university library websites, revealing that undergraduates were generally satisfied with the

content, accuracy, layout, and navigability, though less satisfied with the aesthetic design. Students visited these websites to access e-resources, interact with librarians through social media, and find discipline-specific information. Beyond portals, researchers have examined how mobile technologies more broadly influence students' information-seeking behaviors in academic libraries. [Anyanwu et al. \(2012\)](#) found that polytechnic students in Nigeria occasionally used mobile phones for research due to factors like lack of current resources and internet access in libraries.

Information Technology (IT) Self-Efficacy

Self-efficacy, an individual's belief in their capability to perform a specific task or behavior, plays a crucial role in the learning process ([Thinakaran et al., 2018](#)). In the context of Information Technology (IT), self-efficacy, or computer self-efficacy, refers to an individual's perceived ability to use and navigate computer technologies effectively.

Numerous studies have explored the concept of computer self-efficacy among students, particularly in higher education settings. [Roney et al. \(2017\)](#) investigated faculty responses regarding the use of technology in teaching undergraduate nursing students. Their study revealed that faculty who taught both didactic and clinical/laboratory content reported higher levels of technology use compared to those who only taught didactic content. Additionally, a weak positive relationship was found between age and technological self-efficacy, suggesting that younger faculty members may have higher levels of self-efficacy when it comes to using technology. In the context of distance education, [Şendoğdu & Koyuncuoğlu \(2022\)](#) examined the relationship between university students' views of the distance education system and their computer self-efficacy. Utilizing the Information Systems Success Model (ISSM) and Technology Acceptance Model (TAM), they found that students' computer self-efficacy was correlated with their achievement levels and acceptance of the distance education system.

[Cheewaparakobkit \(2016\)](#) explored the factors influencing computer self-efficacy among undergraduate students in an Asian education environment. The results showed that advanced computer knowledge, internet usage, knowledge of basic software, knowledge of computer operation, and self-confidence were significant predictors of students' computer self-efficacy, explaining 67.24% of the variance. [McCoy \(2010\)](#) investigated the relationship between self-efficacy and technological proficiency among undergraduate college students. The study found that having a computer at home was associated with enhanced computer skills and increased self-efficacy. Additionally, students aged 18-25 reported higher levels of technological proficiency and self-efficacy compared to older students.

[Abulibdeh & Hassan \(2011\)](#) validated a model of student interactions (student-content, student-instructor, student-student, and vicarious interaction), IT self-efficacy, and student achievement in an e-learning environment. While they found that student interactions could predict student achievement, IT self-efficacy could only promote student achievement through its influence on student interactions. [Kass \(2014\)](#) examined instructor and student computer self-efficacy related to learning and using computer technologies in a university setting. The study revealed that students had higher levels of computer self-efficacy when using new technologies with specific support resources, such as product manuals or watching others before trying it themselves. Additionally, students reported higher self-efficacy in using social media, creating engaging presentations, and using new applications on smartphones or tablets.

[Morgan et al. \(2022\)](#) provided a conceptual framework for digital literacy and investigated students' perceptions of their digital literacy proficiency. The study found that students reported the lowest proficiency in using digital information, specifically in evaluating and determining the bias and quality of information. However, they reported higher proficiency in social literacy skills, such as appropriate online communication. [Rodrigues et al. \(2021\)](#) explored the development of technological skills among higher education students in Portugal. Their study highlighted the importance of integrating digital technologies in academic work, relationships between learners, teachers, and institutions, and new ways of teaching and learning to foster the balanced development of students' technological skills.

From the literature, various factors, such as advanced computer knowledge, internet usage, self-confidence, age, and exposure to technology, have been identified as influencing computer self-efficacy among students. Additionally, the integration of digital technologies and the development of technological skills are recognized as crucial for students' personal, social, and professional futures.

Research Gap and Significance

While the existing literature provides valuable insights into library portal services, students' IT self-efficacy, and the relationships between these factors, several research gaps remain. Firstly, the majority of prior studies have focused on specific aspects such as user satisfaction, adoption, or information literacy training related to library portals. However, there is a need for more comprehensive research investigating the interplay between students' IT self-efficacy and their utilization of library portal services across various access points (e.g., desktop computers, mobile devices). Secondly, although the concept of IT self-efficacy has been explored in different educational contexts, its direct relationship with the use of library portal services remains understudied, particularly in the Nigerian context. Understanding this relationship is crucial, as it can inform strategies to enhance students' engagement with library resources and services, ultimately improving their academic performance and research capabilities. Thirdly, while some studies have examined students' preferred access points for library resources, there is a lack of specific research investigating their preferred access points for library portal services. This knowledge is essential for academic libraries to optimize the delivery and accessibility of their portal services across different devices and platforms. Therefore, this study aims to address these research gaps by investigating the relationship between IT self-efficacy and the use of library portal services among undergraduate students in selected universities in South-West Nigeria. By assessing the level of IT self-efficacy, examining the extent of library portal utilization, identifying preferred access points, and determining the relationship between these factors, the study can provide valuable insights for academic libraries and higher education institutions.

The findings of this research can inform strategies to enhance students' IT self-efficacy, promote the effective utilization of library portal services, and optimize the delivery of these services across various access points. Additionally, it can contribute to the broader understanding of the role of IT self-efficacy in facilitating students' engagement with digital resources and tools in academic settings. Ultimately, this study has the potential to improve the accessibility and usability of library portal services, thereby supporting students' academic success and lifelong learning.

METHOD

Research Design

A descriptive cross-sectional survey research design was employed in this study. This approach allowed for the collection of data on information technology self-efficacy and usage of library portal services from undergraduate students across multiple universities in South-West Nigeria at a single point in time.

Participants and Sampling

The target population comprised undergraduate students from the oldest federal (University of Ibadan), state (University of Lagos), and private (Babcock University) universities in South-West Nigeria. These institutions were purposively selected based on their historical significance as pioneers in their respective categories within the region. The total population of undergraduates across these six universities was 323,521. A multi-stage sampling technique was utilized. First, six faculties/colleges with similar academic profiles were purposively selected from each institution. Next, two academic departments were randomly selected from each faculty through balloting to ensure equal representation. The faculties with the highest undergraduate enrollment across the six universities were then identified. Finally, a sample of 658 undergraduate students (2% of the

total undergraduate population in the selected faculties) was randomly drawn through proportionate stratified sampling from each department within those high-enrollment faculties.

Instrumentation

A self-designed, validated questionnaire was used for data collection. It had four sections: 1) Demographics (gender, age range); 2) 15 items on IT self-efficacy using a 4-point Likert scale; 3) 30 items on library portal service usage frequency using a 4-point scale; 4) 10 items on preferred library access points using a 4-point Likert scale. To ensure the instrument's validity and reliability, a multi-pronged approach was undertaken. Two experienced library science experts reviewed the questionnaire, providing their judgments on face and content validity. Their feedback was carefully incorporated to refine the instrument further. Additionally, a pilot test was conducted with 30 undergraduate students from Covenant University, yielding a highly satisfactory Cronbach's alpha coefficient of 0.88, confirming the questionnaire's reliability and internal consistency.

Procedures

The researcher and two research assistants personally administered the questionnaires to the selected universities within two weeks to ensure a high response rate. A letter of introduction was obtained from the Department of Library and Information Science at Tai Solarin University of Education. Respondents were instructed to provide sincere and honest responses and were assured of confidentiality. A total of 658 questionnaires were distributed, and 597 completed copies were retrieved from the undergraduates after an hour, representing a response rate of 90.7%.

Data Analysis

Descriptive statistics, including frequency counts, percentages, means, and standard deviations, were used to summarize and describe the collected data. Frequency counts were employed to analyze the demographic information of the respondents, while means and standard deviations were used to address the research questions. Pearson's Product Moment Correlation (PPMC) was used to test the hypothesis.

Ethical Considerations

The study was conducted with utmost ethical considerations regarding anonymity, confidentiality, conflict of interest, and benefits to the respondents. The research instrument was designed to maintain the anonymity of the respondents by not capturing their names. Respondents participated voluntarily and were not compensated. The respondents' biodata was treated with extreme secrecy and confidentiality.

RESULTS

This section presents the key findings from the survey investigating the relationship between information technology self-efficacy and usage of library portal services from undergraduate students across multiple universities in South-West Nigeria.

Table 1. Demographic Distribution of the Respondents

Demographic Information	Categories	N	%
Gender	Male	249	41.7
	Female	349	58.3
	Total	597	100
Age Range	18-20 years	121	20.3
	21-25 years	403	67.5
	26 years & above	73	12.2
	Total	597	100
TOTAL		597	100.0

[Table 1](#) presents the demographic distribution of the 597 respondents in the study. In terms of gender, the majority of respondents were female, comprising 58.3% (349 respondents), while male respondents accounted for 41.7% (249 respondents). Regarding age, the largest group of respondents fell within the 21-25 years age range, representing 67.5% (403 respondents) of the total sample. The second-largest group was the 18-20 years age range, making up 20.3% (121 respondents), followed by those aged 26 years and above, constituting 12.2% (73 respondents) of the respondents.

The Level of Information Technology Self-Efficacy Among Undergraduate Students in Nigerian Universities

Table 2. Level of information technology self-efficacy by undergraduates

Information technology self-efficacy	Mean \bar{x}	Std. Dev.	Decision
I feel confident using a printer to make a "hardcopy" of my work	3.64	.514	Sig.
I feel confident working on a personal computer (microcomputer)	3.62	.485	Sig.
I feel confident moving the cursor around the monitor screen	3.60	.526	Sig.
I feel confident copying an individual file	3.55	.498	Sig.
I feel confident entering and saving data (numbers or words) into a file	3.55	.678	Sig.
I feel confident getting software up and running	3.52	.566	Sig.
I feel confident organizing and managing files	3.49	.672	Sig.
I feel confident using the computer to write a letter or essay	3.43	.532	Sig.
I feel confident getting rid of files when they are no longer a data file	3.43	.616	Sig.
I feel confident escaping/exiting from a programme or software	3.43	.619	Sig.
I feel confident adding and deleting information to and from a data file	3.43	.496	Sig.
I feel confident calling up a data file to view on a monitor screen	3.40	.667	Sig.
I feel confident making selections from an on-screen menu	3.38	.518	Sig.
I feel confident understanding terms/words relating to computer software	3.31	.648	Sig.
Average Mean	3.48	.574	High

Decision rule: It has been adjudged that criterion mean score of 2.50 and above is Significant.

[Table 2](#) presents the level of information technology self-efficacy among undergraduates, as measured by their mean scores and standard deviations on various items. The results show that all the items had mean scores above 3.00, indicating a high level of information technology self-efficacy among the undergraduates. The item with the highest mean score of 3.64 (std. dev. = 0.514) was "I feel confident using a printer to make a hardcopy of my work." This was followed by "I feel confident working on a personal computer (microcomputer)" with a mean of 3.62 (std. dev. = 0.485). The item with the lowest mean score, although still above the significance criterion, was "I feel confident understanding terms/words relating to computer software" with a mean of 3.31 (std. dev. = 0.648). The average mean score across all items was 3.48 with a standard deviation of 0.574, indicating an overall high level of information technology self-efficacy among the undergraduate respondents.

The Use of Library Portal Services Among Undergraduate Students in Nigerian Universities

[Table 3](#) shows that the top use of the library portal by undergraduates were to find resources related to their research needs like academic papers and scholarly materials (mean = 3.50), to access indexing and abstracting services for locating information in databases (mean =

3.43), and to request assistance with compiling bibliographies for research (mean = 3.40). Other prominent usage included accessing the library catalog (mean = 3.39), seeking reference services (mean = 3.39), accessing translation services (mean = 3.38), viewing account information (mean = 3.37), accessing bibliographic data and citations (mean = 3.36), and searching specific databases (mean = 3.36).

Table 3. Use of library's portal among undergraduates

Indicators	Mean \bar{x}	Std. Dev.	Decision
I use the library portal to find resources related to my research needs, including academic papers and scholarly materials.	3.50	.500	Sig.
I use the library portal to access indexing and abstracting services for locating information in large databases.	3.43	.749	Sig.
I use the library portal to request assistance with compiling bibliographies for research purposes.	3.40	.789	Sig.
I use the library portal to access the library catalogue for finding books and other physical resources available in the library.	3.39	.588	Sig.
I use the library portal to seek reference services and receive help with finding reliable sources for research.	3.39	.671	Sig.
I use the library portal to access translation services for understanding materials in other languages.	3.38	.786	Sig.
I use the library portal to view my account information, such as borrowing history and due dates for checked-out items.	3.37	.608	Sig.
I use the library portal to access bibliographic data and citation details for academic works.	3.36	.717	Sig.
I use the library portal to access specific databases containing valuable academic information and data.	3.36	.738	Sig.
I use the library portal to perform a journal search and access online academic journals and articles.	3.34	.512	Sig.
I use the library portal to access specialized software and tools available on the library portal, which are essential for data analysis, academic writing, and other research-related tasks.	3.33	.709	Sig.
I use the library portal to participate in virtual academic events, webinars, and workshops hosted by the library, which provide valuable insights and support for research and academic growth.	3.31	.771	Sig.
I use the library portal to address non-research needs such as seeking assistance with Information Management and Production (IMP), printing documents, paying fines, renewing materials, and getting directions within the library.	3.31	.676	Sig.
I use the library portal to receive information and referrals on various academic and research-related topics.	3.31	.731	Sig.
I use the library portal to receive referrals to other relevant services within or outside the library.	3.31	.727	Sig.
I use the library portal to utilize the citation management tools and resources offered on the portal, assisting students in organizing and formatting references for their research papers.	3.30	.751	Sig.
I use the library portal to receive updates through the Selective Dissemination of Information service on topics of interest.	3.29	.745	Sig.
I use the library portal to access the library's virtual study rooms and collaborative spaces, fostering group work and knowledge exchange among students.	3.29	.745	Sig.
I use the library portal to stay informed about current developments and news through current awareness services.	3.26	.735	Sig.
I use the library portal to access the library's institutional repository, which contains student theses, research papers, and faculty publications	3.26	.759	Sig.

Indicators	Mean \bar{x}	Std. Dev.	Decision
I use the library portal to view and book appointments with subject librarians for personalized research assistance and guidance	3.25	.757	Sig.
I use the library portal to access e-reserves for my courses, which provide online access to course readings and materials	3.24	.730	Sig.
I use the library portal to gain access to online resources like e-books, e-journals, and digital databases.	3.22	.649	Sig.
I use the library portal to attend library orientation and instruction sessions to familiarize myself with library resources and services.	3.22	.697	Sig.
I use the library portal to communicate with a librarian through the chat service for inquiries and assistance.	3.21	.848	Sig.
I use the library portal to access online citation generators that help me create accurate citations and bibliographies for my academic papers	3.20	.667	Sig.
I use the library portal to access resources for special projects, group assignments, and collaborative research with classmates	3.19	.802	Sig.
I use the library portal to access the newly introduced online tutorials and learning resources that assist students in enhancing their research and information literacy skills.	3.17	.792	Sig.
I use the library portal to utilize the interlibrary loan service for accessing materials not available in the local library.	3.17	.747	Sig.
I use the library portal to explore library services such as attending workshops, events, and receiving research support from library staff.	3.05	.708	Sig.
Average Mean	3.29	.713	Sig.

Decision rule: It has been adjudged that criterion mean score of 2.50 and above is Significant.

Moderately usage was performing journal searches (mean = 3.34), accessing specialized software tools (mean = 3.33), gaining access to e-resources (mean = 3.22), attending library instruction sessions (mean = 3.22), and communicating via chat/email with librarians (mean = 3.21). The least usage was accessing the institutional repository (mean = 3.26), current awareness services (mean = 3.26), booking appointments with librarians (mean = 3.25), accessing e-reserves (mean = 3.24), and utilizing interlibrary loan services (mean = 3.17).

The Preferred Access Points for Library Portal Services Among Undergraduate Students in The Nigerian Universities

The results in [Table 4](#) indicate a clear preference among undergraduates for accessing the library portal through institutionally provided computers and facilities. Library computers emerged as the most preferred access point, with 41.7% rating them as "highly preferred" (mean = 3.11). School ICT center PCs (mean = 2.97), university computer labs (mean = 2.85), and campus Wi-Fi hotspots (mean = 2.84) were also highly favored options, falling in the "somewhat preferred" range. Departmental library computers (mean = 2.76), cyber cafés/business centers (mean = 2.73), and desktop computers (mean = 2.51) were moderately preferred access points. Tablets (mean = 2.41) were the lowest-ranked option among the "somewhat preferred" alternatives. In contrast, personal devices like smartphones (mean = 2.12) and laptops (mean = 1.61) were the least preferred means of accessing the library portal, with mean scores indicating they were generally "not preferred." With an overall average mean of 2.59 across all access points, the findings suggest that undergraduates somewhat preferred most of the available options for accessing the library portal. However, they exhibited a clear inclination towards institutional computing resources, such as library computers, university facilities, and campus networks, over personal devices like smartphones and laptops.

Table 4. Most preferred point of accessing the library portal among undergraduates

Most preferred point of accessing the library portal	Not Preferred	Somewhat Preferred	Preferred	Highly Preferred	Mean \bar{x}	Std. Dev.
Library computer	31 (5.2%)	123 (20.6%)	194 (32.5%)	249 (41.7%)	3.11	.906
School ICT centre PC	71 (11.9%)	164 (27.5%)	72 (12.1%)	290 (48.6%)	2.97	1.112
University computer labs	31 (5.2%)	184 (30.8%)	228 (38.2%)	154 (25.8%)	2.85	.867
Campus Wi-Fi hotspots	141 (23.6%)	137 (22.9%)	174 (29.1%)	145 (24.3%)	2.84	2.727
Departmental library computer	51 (8.5%)	164 (27.5%)	257 (43.0%)	125 (20.9%)	2.76	.878
Cyber cafés / business centres	124 (20.8%)	238 (39.9%)	183 (30.7%)	52 (8.7%)	2.73	.888
Desktop computer	72 (12.1%)	280 (46.9%)	112 (18.8%)	133 (22.3%)	2.51	.969
Tablets	103 (17.3%)	247 (41.4%)	145 (24.3%)	102 (17.1%)	2.41	.965
Smart phones	163 (27.3%)	259 (43.4%)	114 (19.1%)	61 (10.2%)	2.12	.927
Laptop	328 (54.9%)	207 (34.7%)	30 (5.0%)	32 (5.4%)	1.61	.813
Average Mean					2.59	1.105

Decision rule: It has been adjudged that criterion mean score of 2.50 and above is Significant.

Hypothesis

H₀: There is no significant relationship between information technology self-efficacy and use of library portal services among undergraduates in selected universities in South-West, Nigeria.

Table 5. Relationship between information technology self-efficacy and use of library portal services

		IT self-efficacy	Use of library portal services
IT Self-efficacy	Pearson Correlation		1
	Sig. (2-tailed)		.609
	N	597	597
Use of library portal services	Pearson Correlation	.609	1
	Sig. (2-tailed)	.000	
	N	597	597

[Table 5](#) presents the relationship between information technology self-efficacy and use of library portal services among undergraduates. The table shows that a strong relationship exists between information technology self-efficacy and use of library portal services ($r = .609$). The relationship between the two variables is however revealed to be significant ($p < .05$). Thus, null hypothesis was rejected. Hence, there is significant relationship between information technology self-efficacy and use of library portal services among undergraduates in selected universities in South-West, Nigeria.

DISCUSSION

The study found a high level of information technology self-efficacy among undergraduates, which aligns with previous research highlighting students having higher levels of computer self-efficacy when using new technologies and higher proficiency in social literacy skills (Kass, 2014; Morgan et al., 2022). The item with the highest mean score, "I feel confident using a

printer to make a hardcopy of my work," likely reflects the ubiquity and familiarity of printing as a basic computer task for students. Similarly, the second-highest item, "I feel confident working on a personal computer (microcomputer)," suggests a general comfort level with using computers, which is unsurprising given the widespread adoption of technology in educational settings. However, the item with the lowest mean score, "I feel confident understanding terms/words relating to computer software," may indicate a gap in students' understanding of more technical terminology or concepts. While students may be proficient in using common software and applications, comprehending the underlying terminology and principles could be an area for further development. For instance, [Morgan et al. \(2022\)](#) reported the lowest proficiency of student in using digital information, specifically in evaluating and determining the bias and quality of information.

The study's findings that undergraduates primarily use the library portal to find resources for research, access indexing and abstracting services, request bibliography assistance, and search the library catalog align well with previous research emphasizing the importance of library resources and services in supporting undergraduate research and learning needs. This highlights the crucial role that library portals play in facilitating access to a comprehensive array of resources, services, and support mechanisms that foster the development of essential research and information literacy skills among undergraduates. The use of library portals for finding research resources resonates with [Adeyinka's \(2019\)](#) study, which found that undergraduates find university library websites useful for locating materials to support their research endeavors and accessing electronic resources. This underscores the significance of library portals in providing a centralized gateway for students to access a diverse range of scholarly resources, enabling them to effectively conduct research and meet their academic needs. Moreover, the study's findings regarding the use of library portals for accessing indexing and abstracting services, as well as requesting bibliography assistance, underscore undergraduates' need for guidance in effectively searching academic literature and properly citing sources, skills are central to developing research competency ([Bodemer, 2012](#); [Greek & Jonsmoen, 2018](#)). By offering access to indexing and abstracting tools, as well as providing bibliographic support services, library portals play a vital role in equipping undergraduates with the necessary skills to navigate the complex landscape of academic literature and engage in scholarly discourse.

Library portals serve as comprehensive gateways, granting students, including undergraduates, access to a wide array of campus services, resources, and library offerings ([Cox, 2003](#); [Cunningham & Stoffel, 2004](#)). These portals not only provide access to informational resources but also offer support services that foster the development of essential information literacy skills. By integrating various resources, tools, and services into a single platform, library portals streamline the research process and empower undergraduates to become more self-sufficient and competent in their academic pursuits.

The finding that library computers were the most preferred point of access for the library portal, followed by school ICT center computers, university computer labs, and campus Wi-Fi hotspots, aligns with prior research highlighting students' reliance on institutional IT infrastructure when using academic online resources ([Thompson, 2012](#)). This preference likely stems from the availability of specialized software, higher bandwidth, better connectivity, and the general expectation that on-campus IT facilities are geared towards supporting academic needs.

The lower preferences for personal devices like laptops, tablets, and smartphones corroborate findings by [Thompson \(2012\)](#), who observed that while portable device ownership is high among students, many still opt for university-provided desktop computers when engaging with scholarly online systems and content. However, an interesting counterpoint is provided by [Anyanwu et al. \(2012\)](#), who found that mobile phones were frequently used for research among undergraduates in Nigerian polytechnic libraries due to factors such as lack of current resources, time and cost savings, and internet access. The divergence in findings could potentially be explained by differences in study focus, as [Anyanwu et al. \(2012\)](#) did not make direct comparisons

with desktop computer usage. Additionally, the demographic profiles of the student populations differed, as the former assessed university students while the latter assessed polytechnic students.

This finding of a strong and significant positive correlation ($r = .609$, $p < .05$) between information technology self-efficacy and the use of library portal services among undergraduates is noteworthy. In the context of using library portal services, students with higher information technology self-efficacy may be more willing to explore and navigate the various digital resources and tools available, and may be better equipped to troubleshoot or seek assistance when encountering difficulties. This finding highlights the importance of fostering information technology self-efficacy among students as a means of promoting the adoption and optimal utilization of digital library resources and services. Interventions such as targeted training programs, guided hands-on experiences, and opportunities for mastery experiences could be beneficial in enhancing students' technology self-efficacy and, consequently, their engagement with library portal services.

The present study has certain limitations that should be acknowledged. First, the research was conducted within the regional context of South-West Nigeria, and the findings may not be directly transferable to libraries in other cultural contexts. Sociocultural factors, such as cultural norms, attitudes towards technology, and the digital divide, can potentially influence information technology self-efficacy and the use of library portal services. These factors may vary across different regions and cultures, thereby affecting the generalizability of the results. Second, the study did not explicitly examine the role of specific sociocultural factors that could potentially impact the variables under investigation. Cultural values, beliefs, and attitudes towards technology adoption and information-seeking behavior may play a significant role in shaping individuals' information technology self-efficacy and their propensity to utilize library portal services. Without accounting for these sociocultural influences, the interpretation of the findings may be limited.

CONCLUSION

The present study investigated the relationship between information technology self-efficacy and the use of library portal services among undergraduates in selected universities in South-West Nigeria. The findings revealed a high level of information technology self-efficacy among the respondents, with the majority expressing confidence in performing various computer-related tasks. Furthermore, the results indicated that undergraduates extensively utilized the library portal services for a range of academic and research purposes, such as finding resources, accessing databases, seeking reference assistance, and utilizing specialized tools and software. The clear preference for accessing portals via on-campus IT facilities like library computers, school ICT centers, and university labs suggests undergraduates value the infrastructure tailored to academic needs.

Notably, a strong and significant positive relationship was observed between information technology self-efficacy and the use of library portal services. This suggests that as students' confidence in their ability to use information technology increases, their propensity to utilize the library portal services also rises. Undergraduates with higher levels of information technology self-efficacy are more likely to leverage the resources and services available through the library portal, thereby enhancing their research and academic pursuits. Based on the findings, the following recommendations are made:

1. Universities should continue to invest in initiatives that enhance information technology skills and self-efficacy among undergraduates, as these competencies are essential for effectively utilizing digital resources and services, including library portals.
2. Library staff should work closely with faculty members to integrate library portal services into course curricula and assignments, ensuring that students understand the value and relevance of these resources for their academic success.
3. Libraries should regularly evaluate and update their portal services to align with the evolving needs and preferences of undergraduates, ensuring that the services remain relevant and user-friendly.

4. Efforts should be made to promote awareness and provide training on the various features and functionalities of the library portal, as some services (e.g., interlibrary loan, institutional repository) were found to be underutilized.

Implications for Policy and Practice

The findings of this study have several implications for policy and practice:

1. Institutions should prioritize the development and implementation of policies that support the integration of information technology skills into the curriculum, ensuring that all students have access to training and resources to enhance their self-efficacy.
2. Libraries should develop and implement policies that promote the effective use of library portal services, including guidelines for faculty members to encourage the use of these resources in their courses.
3. Professional development programs should be offered to library staff to ensure they are equipped with the necessary knowledge and skills to effectively support and promote the use of library portal services among undergraduates.

Directions for Future Research

To address the limitations mentioned earlier and further advance the understanding of information technology self-efficacy and the use of library portal services, several directions for future research can be proposed:

1. Conduct similar studies in diverse cultural settings, including different regions within Nigeria, other African countries, and international contexts. This would allow for an assessment of the potential impact of sociocultural factors on the variables under investigation and enhance the generalizability of the findings.
2. Incorporate measures or qualitative inquiries to capture the influence of specific sociocultural factors, such as cultural values, attitudes, and beliefs, on information technology self-efficacy and the use of library portal services. This could provide valuable insights into the interplay between sociocultural factors and the variables of interest.
3. Undertake comparative studies across different cultural contexts to identify potential similarities and differences in the relationship between information technology self-efficacy and the use of library portal services. Such comparisons could enhance the understanding of the phenomenon from a global perspective and shed light on the role of cultural diversity in shaping this relationship.
4. Explore the potential moderating or mediating effects of sociocultural factors on the relationship between information technology self-efficacy and the use of library portal services. This could unravel the underlying mechanisms through which sociocultural factors influence this relationship and inform tailored interventions or strategies for different cultural contexts.

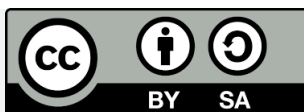
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