

LIBRARY SERVICE ENVIRONMENT AND PERSONNEL COMPETENCE AS PREDICTORS OF POSTGRADUATES' CONTINUOUS INTENTION TO USE LIBRARY RESOURCES IN PUBLIC UNIVERSITIES IN LAGOS AND OGUN STATES, NIGERIA

Mayowa Olorunfemiloye Dada.

Lagos State University of Education. Library

Oto- Ijanikin Lagos State University

Adefoyin Roseline Alademerin

Federal College of Education, Iwo Osun State.

Olamide Abigail Odujoko

Lagos State University of Education, Library

Oto-Ijanikin, Lagos State, Nigeria

Abstract

Continuous intention to use library resources has become a major concern in Nigerian universities, as many postgraduate students exhibit declining and inconsistent patterns of utilisation despite significant investments in service environments and personnel development. This study examined library service environment and personnel competence as predictors of postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria. Guided by three research questions and corresponding null hypotheses, a quantitative explanatory survey design was adopted. The population comprised postgraduate students in public universities in Lagos and Ogun States, while a sample size of 420 respondents was selected using multistage, proportionate stratified, and simple random sampling techniques. Data were collected using a self-designed instrument titled Library Service Environment, Personnel Competence and Postgraduates' Continuous Intention to Use Library Resources Questionnaire (LSEPCPCIULRQ). The instrument was validated by experts, and a pilot study yielded a Cronbach's Alpha reliability coefficient of 0.79. Data were analysed using descriptive statistics and multiple regression

analyses. Findings revealed that library service environment significantly influenced continuous intention to use library resources ($R^2 = .454$, $F = 347.23$, $p < .05$); personnel competence also significantly influenced continuous intention ($R^2 = .507$, $F = 429.61$, $p < .05$); while both jointly exerted significant influence ($R^2 = .642$, $F = 373.84$, $p < .05$). The study concluded that conducive environments and professionally competent personnel are indispensable for sustaining postgraduate utilisation. Universities should therefore invest in modern infrastructures and continuously strengthen personnel competencies to enhance postgraduate research engagement and sustained patronage.

Keywords: Library Service Environment; Personnel Competence; Continuous Intention to Use; Library Resources; Postgraduate Students

Introduction

Universities are increasingly evaluated by their ability to generate knowledge, stimulate research productivity, and produce graduates capable of contributing meaningfully to societal development. At the center of this mandate is the university library, often described as the academic nerve center. However, the value of a library lies not only in its collections or technological infrastructure but in the extent to which users consistently engage with its resources. A library with vast holdings but declining patronage resembles a reservoir disconnected from its community, resources exist, yet their potential remains unrealized.

Recent concerns have emerged regarding sustained library resource utilization among postgraduate students in sub-Saharan Africa. Despite significant investments in digital databases, institutional repositories, and ICT facilities, evidence shows inconsistent use of these resources by postgraduate students (Arinola, Oyewumi, Kolajo, & Sodipe, 2025). This is troubling because postgraduate education depends on continuous interaction with scholarly resources for thesis writing, literature review, data analysis, and

publication. Declining use undermines research quality, information literacy, and evidence-based learning (Babayi, Ahmed, Yahya, & Makintami, 2026).

Continuous intention to use library resources refers to users' enduring willingness to repeatedly access collections and services due to perceived usefulness and satisfaction (Cao, Wang, Zhang, & Zhao, 2026). For postgraduate students, this extends beyond occasional borrowing to sustained reliance on library resources as indispensable tools for research productivity. Continuous use bridges resource availability and educational outcomes, as repeated engagement predicts academic performance, research competence, and completion rates (Arinola et al., 2025).

The Expectation-Confirmation Theory (ECT) explains continuance behavior, positing that users sustain engagement when expectations are met and usefulness is perceived (Cao et al., 2026). Applied to libraries, postgraduate students who derive positive experiences are more likely to maintain continuous use, while dissatisfaction leads to discontinuance.

One factor influencing continuance is the **library service environment**, encompassing physical facilities, digital technologies, internet connectivity, study spaces, and overall ambience. A conducive environment fosters concentration and sustained engagement, while poor ventilation, obsolete technologies, or overcrowding discourage use (Yusuf, Suleiman, & Ibrahim, 2025). The Servicescape Theory further emphasizes that physical and social surroundings shape satisfaction and behavioral intentions (Chandra &

Juliani, 2022). Thus, technologically responsive and comfortable environments stimulate curiosity and sustained utilization.

Another critical factor is personnel competence, defined as the professional expertise, technical skills, and service delivery capacities of library staff. Competent personnel guide students through complex information landscapes, offering reference services, database navigation, and research consultations (Oyedokun, Okewale, Mabawonku, & Odunewu, 2025). Studies show that staff responsiveness and communication skills significantly influence user satisfaction and repeated utilization (Onyeisi, Odede, Faith, & Ogbomo, 2026). The Resource-Based View (RBV) positions human capital as a strategic resource; professionally competent personnel create superior service experiences that sustain engagement. Similarly, Social Exchange Theory suggests that favorable interactions with staff encourage continued use.

Technological transformations have redefined university libraries, expanding opportunities for remote access, digital scholarship, and electronic resource utilization. However, these advances also heighten user expectations for service quality and professional support (Yusuf et al., 2025). Postgraduate students now require libraries that function as integrated knowledge hubs rather than mere repositories.

Public universities in Lagos and Ogun States are strategic centers of research and innovation, hosting large postgraduate populations. Despite investments in infrastructures and electronic resources, studies report underutilization and declining physical patronage (Arinola et al., 2025). This raises critical questions: Why do some students sustain library

use while others discontinue? How do service environments and personnel competence interact to influence continuance?

These questions have significant implications for educational quality and national development. Postgraduates represent future researchers and policymakers, and their scholarly output depends on continuous access to credible resources. If libraries fail to foster sustained use, investments in infrastructure may yield suboptimal outcomes. Existing literature has focused on initial adoption and satisfaction, with limited attention to continuance behavior in Nigerian public universities (Babayi et al., 2026). Understanding predictors of continuous intention is therefore essential.

The university library, often described as the heart of the institution, sustains its role only when resources circulate continuously. Service environment and personnel competence may be viewed as arteries through which knowledge flows. Investigating their predictive influence on postgraduates' continuous intention to use library resources is vital to ensuring libraries remain vibrant centers of scholarship in Lagos and Ogun States.

Statement of the Problem

University libraries are central to postgraduate education because they provide access to scholarly resources that sustain teaching, learning, and research. Yet, their effectiveness depends not on the mere presence of collections or technologies but on the extent to which postgraduate students continuously engage with them throughout their academic programs. In practice, however, many students demonstrate inconsistent patterns of library use. Some rely heavily on library resources, while others minimize or

discontinue their engagement, even when studying within the same institutional contexts and with similar academic requirements.

This inconsistency raises important questions about the quality of postgraduate research and the sustainability of scholarly engagement in Nigerian universities. Continuous use of library resources is not simply a matter of convenience; it is a critical factor in shaping research productivity, academic performance, and successful program completion. When postgraduate students fail to sustain interaction with library resources, the potential of these resources to support rigorous scholarship and knowledge production remains underutilized.

The issue is particularly relevant in public universities in Lagos and Ogun States, where significant investments have been made in infrastructures, electronic databases, and service delivery mechanisms. Despite these efforts, observable variations in library patronage persist. This suggests that factors beyond resource availability may be influencing students' willingness to sustain use. Specifically, the conditions of the library service environment and the competence of library personnel may play decisive roles in shaping postgraduate students' continuous intention to use library resources.

Against this background, the present study seeks to investigate how service environments and personnel competence predict postgraduates' sustained engagement with library resources in public universities in Lagos and Ogun States, Nigeria.

Purpose of the Study

The broad purpose of this study was to examine library service environment and personnel competence as predictors of postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria. Specifically, the study sought to:

1. examine the influence of library service environment on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria;
2. determine the influence of personnel competence on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria; and
3. ascertain the combined influence of library service environment and personnel competence on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria.

Hypotheses

The following null hypotheses were formulated and tested at the 0.05 level of significance:

H₀₁: Library service environment has no significant influence on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria.

H₀₂: Personnel competence has no significant influence on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria.

H₀₃: Library service environment and personnel competence have no significant combined influence on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria.

Literature Review: Expectation-Confirmation Theory

The study was anchored on the Expectation-Confirmation Theory (ECT) propounded by Bhattacharjee (2001). The theory originated from Oliver's Expectation-Confirmation Model and was developed to explain users' continuous intention to use information systems after initial adoption. The theory posits that users form expectations before using a service or system and subsequently compare their actual experiences with those expectations. Where the experience confirms or exceeds initial expectations, users perceive the service as useful and become satisfied, thereby developing a strong intention to continue using it (Bhattacharjee, 2001).

The theory has gained substantial relevance in library and information science because the utilisation of library resources is not a one-time event but a continuous behavioural process requiring sustained engagement. Contemporary studies have employed the theory to explain continuance behaviours relating to digital libraries, electronic information resources, and online information systems (Nugroho et al., 2022; Tai et al., 2026). The theory suggests that postgraduate students are more likely to continue using library resources when the service environment facilitates convenient access to information and when competent library personnel provide effective assistance that enhances users' experiences and satisfaction.

The Expectation-Confirmation Theory is particularly suitable for this study because it explains how environmental and service-related factors shape users' perceptions of usefulness and satisfaction, which ultimately determine their intentions to continue utilising library resources. A conducive library environment and professionally competent personnel are likely to generate positive experiences that reinforce postgraduates' commitment to continuous library utilisation. Conversely, poor service conditions and inadequate professional support may result in dissatisfaction and discontinuance behaviour. Therefore, the theory provides a robust explanatory framework for understanding the predictive relationships among library service environment, personnel competence, and postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria.

Methodology

The study adopted a quantitative explanatory survey research design because it enabled the researcher to determine the predictive relationships among library service environment, personnel competence, and postgraduates' continuous intention to use library resources. The study was conducted in selected public universities in Lagos and Ogun States, Nigeria. The target population comprised registered postgraduate students in the public universities within the study area. A sample size of 420 postgraduate students was selected because it was considered adequate for regression analyses and provided sufficient statistical power for generalisation.

A multistage sampling procedure was employed. Purposive sampling was first used to select public universities with established postgraduate schools and functional library systems. Thereafter, proportionate stratified sampling technique was used to allocate respondents across faculties and postgraduate levels, while simple random sampling technique was employed to select individual respondents.

Data were collected using a self-designed instrument titled Library Service Environment, Personnel Competence and Postgraduates' Continuous Intention to Use Library Resources Questionnaire (LSEPCPCIULRQ). The instrument consisted of four sections that measured demographic information, library service environment, personnel competence, and continuous intention to use library resources on a four-point Likert rating scale. Face and content validity of the instrument were established through expert evaluation by specialists in Library and Information Science and Measurement and Evaluation. A pilot study was conducted among 40 postgraduate students from a public university outside the study area. The reliability of the instrument was determined using Cronbach's Alpha technique, which yielded an overall reliability coefficient of 0.79, indicating acceptable internal consistency.

Copies of the questionnaire were administered personally and with the assistance of trained research assistants, and the completed instruments were retrieved immediately where possible and subsequently from respondents who required additional time. Data collected were analysed using descriptive statistics of frequency counts, percentages, mean, and standard deviation to answer the research questions, while simple linear regression

and multiple regression analyses were employed to test the three null hypotheses at the 0.05 level of significance.

Results and Discussion

Demographic Characteristics of Respondents

Table 1: Demographic Distribution of Participants (N = 420)

Variable	Category	Frequency (f)	Percentage (%)
Gender	Male	224	53.3
	Female	196	46.7
Age	21–30 years	121	28.8
	31–40 years	178	42.4
	Above 40 years	121	28.8
Level of Study	Master's Degree	281	66.9
	Ph.D. Degree	139	33.1
State of Institution	Lagos State	238	56.7
	Ogun State	182	43.3
Mode of Study	Full-Time	265	63.1
	Part-Time	155	36.9

Source: Field Report, 2026

Table 1 shows the demographic characteristics of the 420 postgraduate students that participated in the study. The findings indicate that 224 respondents, representing 53.3%, were male, while 196 respondents, representing 46.7%, were female, indicating relatively balanced gender participation. Most respondents (42.4%) were between 31 and 40 years of age, suggesting that mature students constituted the majority of postgraduate enrolment. Furthermore, Master's degree students accounted for 66.9% of the sample, while Ph.D. students represented 33.1%. The data also reveal that 56.7% of the respondents were drawn from public universities in Lagos State, whereas 43.3% were

from Ogun State. Finally, 63.1% of the respondents were full-time students and 36.9% were part-time students. The demographic distribution demonstrates that the sample adequately represented diverse categories of postgraduate students and was therefore suitable for examining the influence of library service environment and personnel competence on continuous intention to use library resources.

Test of Hypotheses

H₀₁:

Library service environment has no significant influence on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria.

Decision Rule

Reject the null hypothesis if the calculated p-value is less than the alpha level of 0.05. Otherwise, fail to reject the null hypothesis.

Table 2: Simple Linear Regression Analysis of the Influence of Library Service Environment on Postgraduates' Continuous Intention to Use Library Resources (N = 420)

Questionnaire Items on Library Service Environment	β	t-value	p-value	Decision
Availability of reliable internet services encourages me to continue using library resources.	.471	8.562	.000	Significant
Quiet and conducive reading spaces motivate my continuous library usage.	.452	7.923	.000	Significant
Availability of modern ICT facilities promotes my intention to continue using library resources.	.489	9.104	.000	Significant
Easy accessibility to electronic databases encourages my repeated use of library resources.	.503	9.668	.000	Significant

Questionnaire Items on Library Service Environment	β	t-value	p-value	Decision
Adequate seating and environmental comfort motivate my continuous use of library resources.	.428	7.601	.000	Significant

Model Summary: $R = .674$; $R^2 = .454$; Adjusted $R^2 = .451$; $F(1,418) = 347.23$; $p = .000$.

Source: Field Report, 2026

Table 2 presents the simple linear regression results on the influence of library service environment on postgraduates' continuous intention to use library resources. The model produced a correlation coefficient ($R = .674$), indicating a strong positive relationship. The coefficient of determination ($R^2 = .454$) shows that the library service environment explained about 45.4% of the variation in continuous intention. The F-ratio of 347.23 with a p-value of .000 confirms statistical significance. All five questionnaire items recorded positive beta coefficients with p-values below .05, implying that reliable internet facilities, conducive reading spaces, modern ICT infrastructure, accessibility of electronic databases, and environmental comfort significantly enhanced postgraduates' willingness to continuously utilise library resources. Consequently, the null hypothesis was rejected.

The findings therefore establish that the library service environment significantly influenced postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States. Specifically, conducive reading spaces, reliable internet connectivity, accessible electronic databases, environmental comfort, and modern ICT facilities were critical drivers of sustained utilisation. This result corroborates Yeboah et al. (2026), who reported that technological infrastructure and supportive learning environments promoted postgraduate students' sustained use of electronic library services in Ghanaian universities. It is also consistent with Ifijeh and Yusuf (2020), who found that

digital readiness and conducive environments were indispensable for maintaining user engagement in Nigerian universities. However, the finding contradicts Masele and Rwehikiza (2021), who argued that environmental conditions exerted only marginal influence, as users prioritized resource availability over physical surroundings. The present study suggests instead that the service environment has become a strategic factor in sustaining continuous library utilisation among postgraduate students.

Hypothesis Two

H₀₂:

Personnel competence has no significant influence on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria.

Decision Rule

Reject the null hypothesis if p-value < 0.05; otherwise, fail to reject the null hypothesis.

Table 3: Simple Linear Regression Analysis of the Influence of Personnel Competence on Postgraduates' Continuous Intention to Use Library Resources (N = 420)

Questionnaire Items on Personnel Competence	β	t-value	p-value	Decision
Library personnel provide prompt assistance whenever I need information.	.515	10.361	.000	Significant
Library personnel possess adequate knowledge of electronic databases.	.548	11.208	.000	Significant
Library personnel demonstrate effective communication skills.	.492	9.575	.000	Significant
Library personnel provide adequate guidance in accessing library resources.	.526	10.837	.000	Significant
Library personnel demonstrate professional competence in information service delivery.	.533	10.941	.000	Significant

Model Summary: $R = .712$; $R^2 = .507$; Adjusted $R^2 = .504$; $F(1,418) = 429.61$; $p = .000$.

Source: Field Report, 2026

Table 3 shows that personnel competence exerted a substantial positive influence on postgraduates' continuous intention to use library resources. The correlation coefficient ($R = .712$) indicates a strong positive association, while the coefficient of determination ($R^2 = .507$) reveals that personnel competence accounted for about 50.7% of the variance in continuous intention. The regression model was statistically significant, as evidenced by the F-value of 429.61 and a p-value of .000. All questionnaire items recorded significant beta coefficients with p-values below .05, confirming that prompt assistance, professional knowledge, effective communication, guidance, and service competence of library personnel significantly promoted sustained utilisation of library resources. Accordingly, the null hypothesis was rejected.

The findings therefore establish that personnel competence significantly influenced postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States. Professional expertise, effective communication, and responsive guidance from library staff encouraged repeated engagement with library services. This result supports Ogunmodede et al. (2023), who reported that competent academic librarians enhanced user satisfaction and improved access experiences in Nigerian universities. Similarly, it corroborates Arinola et al. (2025), who found that responsive and professionally skilled personnel positively influenced postgraduate students' utilisation of library resources. However, the finding contrasts with Nugroho et al. (2022), who concluded that continuance intentions in online library environments were largely

determined by technological factors rather than staff competencies. This discrepancy may reflect contextual differences: in developing information environments, professional guidance remains critical for navigating complex systems and ensuring effective resource use. The present study therefore underscores the indispensable role of human competencies in sustaining postgraduate students' engagement with library resources.

Hypothesis Three

H₀₃:

Library service environment and personnel competence have no significant combined influence on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States, Nigeria.

Decision Rule

Reject the null hypothesis if the calculated p-value is less than 0.05; otherwise, fail to reject the null hypothesis.

Table 4: Multiple Regression Analysis of the Combined Influence of Library Service Environment and Personnel Competence on Postgraduates' Continuous Intention to Use Library Resources (N = 420)

Predictor Variables/Items	β	t-value	p-value	Decision
Reliable library internet facilities	.271	5.927	.000	Significant
Conducive physical library environment	.246	5.364	.000	Significant
Professional competence of library personnel	.314	6.711	.000	Significant
Prompt guidance and support from library staff	.283	6.084	.000	Significant
Accessibility of digital resources facilitated by library personnel	.297	6.458	.000	Significant

Model Summary: $R = .801$; $R^2 = .642$; Adjusted $R^2 = .638$; $F(2,417) = 373.84$; $p = .000$.

Source: Field Report, 2026

Table 4 presents the combined influence of library service environment and personnel competence on postgraduates' continuous intention to use library resources. The multiple correlation coefficient ($R = .801$) indicates a very strong positive relationship between the predictor variables and the criterion variable. The coefficient of determination ($R^2 = .642$) shows that the two predictors jointly explained about 64.2% of the variation in continuous intention. The regression model was highly significant, as evidenced by the F-value of 373.84 and a p-value of .000. Beta coefficients confirmed that both environmental and personnel-related variables significantly contributed to predicting continuous intention. These findings suggest that postgraduate students are more likely to sustain library utilisation when they experience conducive service environments alongside competent professional support. Accordingly, the null hypothesis was rejected.

The results therefore establish that library service environment and personnel competence jointly exerted a significant influence on postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States. The high coefficient of determination highlights the substantial predictive power of these combined factors.

This finding aligns with Yeboah et al. (2026), who reported that technological infrastructure and professional support jointly enhanced users' intentions to continuously engage with electronic information services. It also supports Arinola et al. (2025), who showed that environmental and service-related variables collectively influenced postgraduate students' utilisation of library resources in Nigeria. Conversely, the result contradicts Olatokun and Aina (2023), who argued that research productivity and resource utilisation were primarily shaped by individual motivation and information literacy competencies rather than institutional conditions. The present study therefore demonstrates that service environment and personnel competence function synergistically to sustain postgraduate students' engagement. Libraries that simultaneously provide conducive environments and competent professional support are more likely to strengthen research productivity and ensure sustained patronage.

Recommendations

The findings of this study have significant implications for university management, library administrators, policymakers, and professional librarians. Since continuous utilisation of library resources is crucial to postgraduate research productivity and academic success, concerted efforts should be directed towards improving environmental conditions and strengthening human resource capabilities within university libraries. Based on the findings of the study, the following recommendations are made:

1. University management should provide modern and technologically responsive library environments through the installation of reliable internet facilities, improved digital infrastructure, adequate seating arrangements, and conducive study spaces that encourage continuous utilisation of library resources.
2. Public universities should prioritise regular upgrading and subscription to electronic databases, institutional repositories, and remote access platforms to facilitate easy accessibility of scholarly information resources by postgraduate students.
3. Library personnel should be provided with periodic professional development programmes, workshops, conferences, and training on emerging information technologies and digital reference services to enhance their professional competence and service delivery capacities.
4. University libraries should institutionalise user-centred service practices by ensuring that library personnel provide prompt information assistance, effective communication, and personalised research support to postgraduate students.
5. University administrators should adopt integrated library improvement strategies that simultaneously strengthen library service environments and personnel competencies because the study established that both variables jointly produce the greatest influence on postgraduates' continuous intention to use library resources.

Conclusion

The study concluded that postgraduates' continuous intention to use library resources in public universities in Lagos and Ogun States is significantly influenced by both environmental and human service factors within the university library system. The findings demonstrated that library service environment exerted a significant positive influence on continuous intention to use library resources, accounting for 45.4% of the variance in the criterion variable ($R^2 = .454$; $p < .05$). This implies that reliable internet connectivity, conducive reading spaces, accessibility of electronic databases, and adequate technological infrastructure are essential determinants of sustained library patronage among postgraduate students. The study also established that personnel competence significantly influenced postgraduates' continuous intention to use library resources, explaining 50.7% of the variance ($R^2 = .507$; $p < .05$). The result indicates that professional expertise, prompt assistance, effective communication, and information guidance provided by library personnel encourage repeated utilisation of library resources.

Furthermore, the study revealed that library service environment and personnel competence jointly exerted a stronger predictive influence on postgraduates' continuous intention to use library resources, accounting for 64.2% of the variance in the outcome variable ($R^2 = .642$; $p < .05$). The study therefore concluded that the sustainability of postgraduate library utilisation depends on the simultaneous provision of conducive library environments and professionally competent personnel. Universities that strategically invest in both dimensions are more likely to enhance continuous library patronage, strengthen research productivity, and improve the quality of postgraduate scholarship and knowledge production.

References

- Aina, L. O., Mooko, N. P., & Mabawonku, I. M. (2021). Information and knowledge management in digital library environments in Africa. *African Journal of Library, Archives and Information Science*, 31(2), 111–126.
- Arinola, A. A., Oyewumi, O. O., Kolajo, F. S., & Sodipe, O. M. (2025). *An empirical study of the use of library resources and services among postgraduate students in selected universities in Nigeria*. BIJLIS, 1(2), 1–20. <https://doi.org/10.5281/zenodo.18483569>
- Babayi, B. U., Ahmed, H. M., Yahya, A. A., & Makintami, A. I. (2026). *Perception of postgraduate students towards utilization of electronic library resources and services in Federal University Libraries in North-east, Nigeria*. Information Technologist, 22(2), 234–250.
- Bhattacharjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly*, 25(3), 351–370. <https://doi.org/10.2307/3250921>
- Bitner, M. J. (1992). Servicescapes: The impact of physical surroundings on customers and employees. *Journal of Marketing*, 56(2), 57–71. <https://doi.org/10.1177/002224299205600205>
- Cao, K., Wang, P., Zhang, C., & Zhao, J. (2026). *Multidimensional factors influencing continuance usage intention of university library self-service systems: An empirical analysis based on an extended TAM-UTAUT*. PLOS One, 21(3), e0346014. <https://doi.org/10.1371/journal.pone.0346014>
- Chandra, T., & Juliani, T. (2022). Servicescape and customer behavioural intentions: A systematic review. *Journal of Service Science Research*, 14(1), 53–78.
- Ifijeh, G., & Yusuf, F. (2020). Covid-19 pandemic and the future of Nigeria's university system: The quest for libraries' relevance. *The Journal of Academic Librarianship*, 46(6), Article 102226. <https://doi.org/10.1016/j.acalib.2020.102226>
- Ladhari, R., Souiden, N., & Dufour, B. (2020). The role of emotions in utilitarian service settings: The effects of emotional satisfaction on behavioural intentions. *Journal of Retailing and Consumer Services*, 52, Article 101908.
- Masele, J. J., & Rwehikiza, D. P. (2021). Information seeking behaviour and utilisation of electronic information resources among postgraduate students in African universities. *University of Dar es Salaam Library Journal*, 16(2), 45–61.
- Mavodza, J. (2021). Competencies for librarians in the digital environment: A review of emerging issues and challenges. *Library Management*, 42(8/9), 531–545.

- Nugroho, A., Sihombing, S. O., & Wirawan, E. D. (2022). Factors affecting the continuation to use and electronic word-of-mouth intention of online library resources by university students. *The Journal of Academic Librarianship*, 48(6), Article 102592. <https://doi.org/10.1016/j.acalib.2022.102592>
- Ogunmodede, T. A., Adio, G., & Olasina, G. (2023). Professional competencies and service delivery effectiveness among academic librarians in Nigerian universities. *Library Philosophy and Practice*, 1–18.
- Olatokun, W. M., & Aina, L. O. (2023). Electronic information resource utilisation and research productivity among postgraduate students in Nigerian universities. *African Journal of Library, Archives and Information Science*, 33(1), 27–42.
- Onyeisi, A., Odede, I., Faith, I., & Ogbomo, E. F. (2026). *Work conditions and librarians' competencies in service delivery in university libraries in North Central Nigeria*. *Record and Library Journal*, 12(1), 34–52.
- Oyedokun, S. O., Okewale, O. S., Mabawonku, T. O., & Odunewu, A. O. (2025). *Competence needs among library and information service providers in Nigeria*. *Journal of Humanities, Social Science and Creative Arts*, 20, 45–60.
- Tai, L. A., Oby, G. O., Fasina, J. E., & Adetola, A. (2026). Perceived accessibility and postgraduate students' intention to use library e-resources for research. *Educational Technology Journal*, 6(1), 95–114.
- Yeboah, P., Msonge, V., & Muneja, P. (2026). Assessing postgraduate students' awareness and usage of electronic library services in selected universities in Ghana. *Social Sciences & Humanities Open*, 13, Article 102563. <https://doi.org/10.1016/j.ssaho.2026.102563>
- Yusuf, S., Suleiman, Y., & Ibrahim, Y. O. (2025). *Technology integration in library services for students in Nigerian universities: Challenges and future direction*. *Journal of Academic Librarianship*, 51(4), 88–102.