



**UNDERGRADUATE STUDENTS' PERCEPTIONS OF AND SATISFACTION WITH LIBRARY SERVICES AND ENVIRONMENT: A CASE STUDY OF THE UNIVERSITY OF ILORIN, KWARA STATE, NIGERIA.**

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**Abstract**

*This study examined undergraduate students' perceptions of and satisfaction with library services and the library environment at the University of Ilorin, Kwara State, Nigeria. A survey research design was adopted, targeting registered undergraduate students during the 2023/2024 academic session. Using the Yamane formula, a sample size of 398 students was determined, out of which 380 valid questionnaires were returned and analyzed. Data were collected using a structured questionnaire titled Library Services, Environment and Users' Satisfaction Questionnaire (LSEUSQ) and analyzed using descriptive statistics and Pearson Product Moment Correlation at a 0.05 level of significance. Findings revealed that undergraduate students generally have positive perceptions of the library services, particularly the adequacy of resources, ease of using the catalogue, staff helpfulness, and accessibility of online resources. The physical and digital library environment was also rated favorably, with cleanliness, safety, seating arrangement, lighting, and ventilation contributing to a conducive learning atmosphere. Overall, students expressed a high level of satisfaction with library services and the environment. However, areas such as internet connectivity, availability of up-to-date materials, staff responsiveness, and provision of charging points require improvement. The study concludes that effective library services and a supportive environment significantly enhance undergraduate students' satisfaction*

*at the University of Ilorin. It recommends continuous upgrading of library resources, improvement of ICT infrastructure, enhanced staff-user relations, and regular assessment of users' needs to sustain and improve satisfaction levels.*

**Keywords:** Library Services, Environment, University, User's Satisfaction, Undergraduates

## Introduction

In the modern world, user satisfaction has emerged as one of the most crucial metrics for assessing a service's efficacy and utility. It is frequently used in library and information science to gauge how successfully a library serves its patrons' requirements. According to Zeithaml, Bitner, and Gremler (2018), contentment is the result of contrasting expectations with actual experiences. Users are happy when their expectations are fulfilled; when they are not, they become dissatisfied (Kotler & Keller, 2019). According to Baker and Wallace (2020), contentment in a library context is the extent to which patrons believe that the materials, services, and atmosphere offered satisfy their information demands.

The availability, usability, and accessibility of resources are used to evaluate the quality of library services. Lending, reference aid, interlibrary loans, user education, and even online help are all examples of good library services. Users are more satisfied when these services are delivered effectively. However, discontent arises when materials are out-of-date, access is challenging, or services are delayed (Ogunmodede, Adio & Odunola, 2011). But in addition to service quality, the library setting has a big impact on patron satisfaction.

Bennett (2020), clarified that physical elements including lighting, ventilation, noise reduction, space, and furnishings are all part of the library environment. A tidy, peaceful, and cosy library encourages learning and draws more patrons. According to Lawson and Potter (2021), well-maintained facilities increase student satisfaction. According to Hernandez and Murphy (2019), crowding and loudness might irritate consumers and lower their level of happiness.

The library environment is both physical and virtual in the current digital era. The digital library environment, which includes websites, online databases, and mobile access, is crucial to patron satisfaction, according to Choi and Rasmussen (2021). Users are more likely to have a favourable opinion of the library if the platforms are easy to use and the resources are accessible from a distance. However, students may lose patience with websites that are unresponsive, difficult to use, or badly designed.

Several studies in Nigeria have investigated satisfaction in university libraries. Popoola and Haliso (2009), discovered that how academic staff use resources and services influences their

teaching performance. Adeniran (2011), found that satisfaction influences how frequently students use library resources. Ani and Edem (2012), emphasised the importance of ICT in increasing access and satisfaction. Oyewumi and Adenike (2018), discovered that both environment and resources influence students' experiences in Oyo State universities. Despite these studies, difficulties persist, such as inadequate seating, unreliable internet, outdated collections, and unpleasant digital platforms.

At the University of Ilorin, Kwara State, the library is one of the largest in Nigeria and serves a large population of students. As enrolment increases each year, there is greater pressure on services and facilities. This raises the question of whether students are truly satisfied with what the library offers. Although some studies have examined satisfaction with library services in other Nigerian universities (Ogunmodede, Adio & Odunola, 2011; Ibrahim & Salisu, 2019; Akinbode & Osinulu, 2020), few have focused on the combined effect of both library services and environment in Kwara State.

This study therefore aims to fill that gap by examining how both library services and the environment influence satisfaction among undergraduate students of the University of Ilorin. By considering both factors together, the research will provide a more complete picture of what drives satisfaction and where improvements are needed. The results will guide the library management in planning better services, improving facilities, and meeting the rising expectations of students. In doing so, the library will be better positioned to support teaching, learning, and research in the university.

### **Statement of the Problem**

University libraries remain critical to academic success, particularly for undergraduate students who rely on them for study resources, research materials, and academic support. However, despite increasing investments in library infrastructure and services, many students continue to express dissatisfaction with their experiences. This raises questions about whether current library services and environments are meeting user needs. Poor lighting, inadequate seating, noise disturbances, limited access to digital resources, and inefficient service delivery can all impact the quality of the library experience. In this context, it is important to assess how library services and the environment (physical and digital) influence user satisfaction among undergraduate students particularly at the University of Ilorin.

While previous studies have explored user satisfaction in university libraries across Nigeria, few have specifically focused on the context of the University of Ilorin. This study addresses that gap by providing a detailed assessment of undergraduate students' satisfaction with the existing library services and environment. Without such empirical data on student perceptions, it is difficult for library administrators and university management to identify key

areas for intervention or to improve service delivery in a way that is responsive to student needs. Therefore, this study aims to describe the current levels of user satisfaction among undergraduate students at the University of Ilorin. The outcome will provide a clearer understanding of user expectations and experiences, thereby guiding evidence-based improvements to enhance the effectiveness of the university library.

### **Objectives of the Study**

The main objective of this study is to assess the perceptions and satisfaction levels of undergraduate students with the library services and environment at the University of Ilorin, Kwara State.

The specific objectives are to:

- I. examine the quality of library services provided to undergraduate students of University of Ilorin;
- II. evaluate undergraduate students' perceptions of the environment (physical and digital) of the university library at University of Ilorin; and
- III. determine the level of satisfaction of undergraduate students with library services and environment at University of Ilorin.

### **Review of Related Literature**

The academic library remains the intellectual hub of the university, supporting teaching, learning, and research through the provision of information resources and services. In recent years, university libraries have evolved beyond traditional print collections to include electronic databases, institutional repositories, online reference services, and technology-enabled learning spaces. The effectiveness of an academic library is increasingly measured not only by the size of its collections but by users' perceptions and satisfaction with its services and environment (Afolabi, 2019; Ajala & Ogunmodede, 2020).

Library services such as circulation, reference services, electronic resources, user education, and internet access play a crucial role in enhancing students' academic performance. Recent studies have shown that access to current and relevant information resources significantly improves learning outcomes and research productivity among undergraduates (Ogbene, 2018; Afolabi, 2019). Ajala and Ogunmodede (2020) reported that the introduction of electronic catalogues, online reference services, and library orientation programmes has improved users' satisfaction in Nigerian university libraries. Similarly, Lawal and Babatunde (2021) found that students' satisfaction was strongly influenced by the availability of e-resources, staff responsiveness, and ease of information retrieval.

User satisfaction is also shaped by the integration of information and communication technology (ICT) in library operations. Studies conducted by Aina, Omeluzor, and Oyovwe-Tinuoye (2021) revealed that ICT-driven services enhance efficiency, reduce waiting time, and promote positive user perceptions. In the same vein, Ogunrombi and Dipeolu (2022) emphasized that digital literacy support and effective user education programmes enable students to maximize the use of library resources, thereby increasing satisfaction levels.

Beyond services, the library environment has been identified as a critical determinant of user satisfaction. The physical environment including lighting, ventilation, seating arrangement, noise control, cleanliness, and aesthetic appeal plays a significant role in shaping students' perceptions of the library (Ogbene, 2018; Momodu & Aiyebilehin, 2020). Studies by Okiy (2019) and Echezona and Ugwuanyi (2020) showed that a conducive and well-organized library environment encourages prolonged use, concentration, and positive learning experiences. Modern facilities such as air-conditioned reading rooms, reliable power supply, and ICT-equipped spaces have been found to enhance students' comfort and satisfaction.

However, several challenges continue to affect user satisfaction in Nigerian university libraries. Afolabi (2019) identified inadequate funding, poor maintenance of facilities, unstable electricity supply, limited internet connectivity, and insufficient ICT infrastructure as major constraints. More recently, Olatokun and Ifijeh (2021) observed that overcrowding, outdated materials, and slow service delivery negatively influence undergraduates' perceptions of library effectiveness. These challenges, if not addressed, reduce the quality of service delivery and the overall library experience.

User education and staff-user relationships have also been recognized as important factors influencing satisfaction. Studies by Popoola and Haliso (2019) and Ogunrombi (2022) revealed that undergraduates who receive proper library orientation and information literacy training demonstrate higher satisfaction and more effective use of resources. Furthermore, courteous staff attitude, prompt assistance, and effective communication were found to strengthen users' confidence in library services (Ajala & Ogunmodede, 2020; Lawal & Babatunde, 2021).

In summary, recent literature indicates that undergraduate students' satisfaction with university libraries is influenced by a combination of service quality, ICT integration, user education, staff responsiveness, and the physical environment. While several studies have examined these variables independently, there is limited empirical evidence on their combined influence on user satisfaction, particularly among undergraduates of the University of Ilorin. Therefore, this study seeks to bridge this gap by examining undergraduates' perceptions of and satisfaction with library services and the library environment at the University of Ilorin, Kwara State, Nigeria.

## Methodology

A survey research design was adopted for this study due to its suitability for gathering data through questionnaires. The population comprised all registered undergraduate students of the University of Ilorin, Kwara State, Nigeria, during the 2023/2024 academic session. The total population of undergraduates was 48,835 (Academic Planning Unit, 2024). Using the Yamane (1967) formula at a 95% confidence level and 0.05 margin of error, a sample size of 398 respondents was determined. A convenient sampling technique was used to select respondents from different faculties based on their availability and willingness to participate.

Data were collected using a structured questionnaire titled Library Services, Environment and Users' Satisfaction Questionnaire (LSEUSQ), A pilot test using 30 students from Kwara State College of Education, Ilorin, yielded a Cronbach's Alpha coefficient of 0.87, confirming reliability.

Of the 398 questionnaires distributed, 380 were returned, representing a 95.5% response rate. Data were analyzed using SPSS (Version 25), applying descriptive statistics (frequency, percentage, mean, and standard deviation) to answer research questions, and Pearson Product Moment Correlation (PPMC) to test hypotheses at a 0.05 significance level.

## Presentation of Data

**Research Question 1:** What types of library services are available to undergraduate students at University of Ilorin?

**Table 4.4.1:** Types of library services are available to undergraduate students at University of Ilorin

Items	SA		A		D		SD		M	SD
	F	%	F	%	F	%	F	%		
The library provides access to useful academic databases	74	19.4	216	56.5	68	17.8	24	6.3	2.1	0.8
The library's borrowing and returning process is efficient	107	28.0	214	56.0	49	12.8	18	3.1	2.1	0.7
I receive adequate assistance in locating study materials	88	23.0	226	59.2	62	16.3	16	1.6	2.0	0.7
The library's online resources are easily accessible and reliable	91	23.8	231	60.5	54	14.3	16	1.6	1.9	0.6
Library staff are helpful	102	26.7	204	53.4	69	18.0	17	1.8	1.9	0.7
The library provides effective orientation and user education sessions	77	20.2	219	57.3	64	16.8	20	5.7	1.9	0.7

The library's catalogue or OPAC system is easy to use	111	29.1	222	58.1	4.0	10.5	9	2.4	1.86	0.68
The library has adequate resources	166	43.4	180	47.1	2.7	7.6	8	2.8	1.67	0.69

**Source:** Researcher's Field Survey, 2025

Table 4.4.1 shows that undergraduate students at the University of Ilorin have access to various library services rated positively. The library's resources (mean = 1.67) and catalogue system (mean = 1.86) were well received, indicating satisfaction with core operations. Students also expressed favourable views on staff helpfulness (mean = 1.95), borrowing efficiency (mean = 2.11), and online resources (mean = 1.96). However, assistance in locating materials (mean = 2.07) and user education (mean = 1.91) require improvement. Overall, the library provides effective, user-friendly services that support students' academic needs.

**Research Question 2:** How do undergraduate students perceive the physical and digital environment of the library at University of Ilorin?

**Table 4.4.2:** How undergraduate students perceived the physical and digital environment of the library at University of Ilorin

Items	SA		A		D		SD		M	SD
	F	%	F	%	F	%	F	%		
The library layout makes it easy to locate different sections	107	28.0	203	53.1	5.8	15.2	1	3.6	2.04	0.78
The library provides adequate safety (e.g. CCTV, security personnel)	126	33.0	205	53.7	4.3	11.3	8	2.1	1.98	0.68
The library furniture (chairs, tables, shelves) is comfortable	125	32.7	215	56.3	3.6	9.4	6	1.6	1.93	0.75
The library's Internet/Wi-Fi access is satisfactory	94	24.6	193	50.5	8.0	20.9	1	4.0	1.87	0.76
There is adequate seating space	115	30.1	226	59.2	2.6	6.8	1	4.0	1.83	0.69
The noise level in the library is appropriately controlled	120	31.4	218	57.1	3.7	9.7	7	1.8	1.83	0.69
The library's opening hours are convenient for my study schedule	121	31.7	219	57.3	3.4	8.9	8	2.1	1.82	0.71
Lighting in the library is adequate for reading	127	33.2	190	49.7	5.2	13.6	1	3.4	1.82	0.67
The library is clean	129	33.8	218	57.1	2.7	7.1	8	2.1	1.80	0.67

The library is free from distractions	130	34.0	208	54.5	3	4	8.9	1	0	2.6	1.7	0.6
The ICT section (if available) enhances the learning experience	83	21.7	232	60.7	5	5	14.4	1	2	3.1	1.7	0.6
The library is well-ventilated	157	41.1	193	50.5	2	4	6.3	8	2.1	2.1	1.6	0.6

**Source:** Researcher's Field Survey, 2025

Table 4.4.2 shows that undergraduate students perceive the University of Ilorin Library environment positively. High ratings were recorded for layout (mean = 2.04), safety (mean = 1.98), and furniture comfort (mean = 1.93), indicating an accessible and secure setting. Cleanliness (mean = 1.80), ventilation (mean = 1.69), and lighting (mean = 1.82) further enhanced satisfaction. Seating space, quietness, and convenient opening hours also contributed to a conducive atmosphere. The ICT section (mean = 1.77) and Wi-Fi access (mean = 1.87) were rated fairly well, though connectivity varied. Overall, the physical and digital environments effectively support students' learning, with minor improvements needed in internet consistency.

**Research Question 3:** What is the level of satisfaction among undergraduate students regarding library services and environment at University of Ilorin?

**Table 4.4.3:** Level of satisfaction among undergraduate students regarding library services and environment at University of Ilorin

Items	VHS		HS		MS		LS		M	SD
	F	%	F	%	F	%	F	%		
Your overall satisfaction with the library services	161	42.1	151	39.5	6	16.2	8	2.1	1.7	0.7
Satisfaction with how the library supports your academic work	63	16.5	235	61.5	7	18.0	1	3.7	2.0	0.6
Satisfaction with the variety of library resources	84	22.0	178	46.6	1	28.0	1	2.6	2.1	0.6
Satisfaction with library staff assistance	58	15.2	189	49.5	1	30.7	1	4.7	2.2	0.7
Satisfaction with the conduciveness of the library environment	74	19.4	202	52.9	9	25.6	1	2.6	2.1	0.7
Availability of up-to-date academic materials	75	19.6	194	50.8	9	25.6	1	4.4	2.1	0.7
Ease of finding books and other resources in the library	60	15.7	222	58.1	8	23.8	1	3.1	2.1	0.6
The effectiveness of the library's online catalog/search system	75	19.6	208	54.5	7	20.9	2	5.2	2.1	0.7



Your satisfaction with internet/Wi-Fi services within the library	87	22.8	192	50.3	8.7	22.8	1.6	3.7	2.0	0.7
Adequacy of power supply	102	26.7	195	51.0	7.1	18.6	1.4	3.6	1.9	0.7
Availability of charging points for devices	64	16.8	186	48.7	1.4	29.8	1.8	4.7	2.2	0.7
Your willingness to continue using the library regularly	87	22.8	205	53.7	7.4	19.4	1.6	4.2	2.0	0.7

**Source:** Researcher's Field Survey, 2025

Table 4.4.3 indicates that undergraduate students at the University of Ilorin are generally satisfied with library services and the environment. Overall satisfaction was high (mean = 1.78), with strong ratings for academic support (mean = 2.08) and power supply (mean = 1.98). Moderate satisfaction was recorded for resource variety (mean = 2.10), environment (mean = 2.11), and online catalogue (mean = 2.11). Lower ratings for staff assistance (mean = 2.24) and charging points (mean = 2.21) suggest areas needing improvement. Although Wi-Fi services (mean = 2.07) showed some inconsistency, findings overall reflect positive user experiences, with recommendations for enhanced staff support and technological infrastructure.

### Discussion of the Findings

The findings reveal that the University of Ilorin Library offers a wide range of services that are generally well received by undergraduate students. Most respondents expressed positive perceptions, with mean scores ranging between 1.67 and 2.12, indicating favourable responses. The adequacy of library resources recorded the highest rating, suggesting that students perceive the library's collections as relevant and sufficient for their academic needs. This finding is consistent with studies by Afolabi (2019) and Akinbode and Osinulu (2020), who reported that the availability of relevant and adequate resources significantly enhances students' perception of library effectiveness. Similarly, the ease of using the library catalogue and the effectiveness of user education programmes align with findings by Ajala and Ogunmodede (2020), who observed that user-friendly catalogues and orientation programmes improve information retrieval skills and overall satisfaction among undergraduates.

Staff helpfulness and accessibility of online resources were also positively rated, confirming earlier findings by Baker and Wallace (2020), who noted that responsive library staff and access to digital resources positively influence user perceptions in academic libraries. However, relatively higher mean scores for access to academic databases and circulation efficiency indicate areas requiring improvement. This supports the observations of Ibrahim and Salisu (2019), who found

that challenges such as limited database subscriptions and delays in circulation services can reduce users' perceived service quality in Nigerian tertiary institutions.

The physical and digital environment of the library was similarly viewed favourably by respondents. Students agreed that the library layout is easy to navigate and that factors such as safety, furniture, lighting, and cleanliness are satisfactory. These findings corroborate the studies of Hernandez and Murphy (2019) and Lawson and Potter (2021), which established that well-organized library spaces, adequate furniture, and good lighting enhance comfort, usability, and prolonged library use. Although internet connectivity received mixed responses, ventilation emerged as the lowest-rated environmental factor. This finding aligns with Bennett (2020), who emphasized that environmental comfort, including proper ventilation, is critical to sustaining positive user experiences in academic libraries.

Regarding satisfaction levels, students expressed generally high satisfaction with library services and facilities. Overall satisfaction and power supply were ranked highest, suggesting that the library meets students' basic academic and infrastructural expectations. This finding is consistent with Zeithaml, Bitner, and Gremler (2018), who argued that user satisfaction reflects the extent to which services meet or exceed expectations. Moderate satisfaction with staff assistance and charging points, however, suggests the need for improved staff responsiveness and better technological support. Similar concerns were reported by Choi and Rasmussen (2021), who found that inadequate technological infrastructure and limited staff support can negatively affect users' digital library experiences.

In summary, the University of Ilorin Library provides comprehensive services and a supportive environment that contribute to high levels of undergraduate student satisfaction. These findings align with earlier studies indicating that quality services, conducive environments, and effective ICT integration are key determinants of user satisfaction in academic libraries (Afolabi, 2019; Baker & Wallace, 2020). Nonetheless, issues related to consistent internet access, improved ventilation, updated collections, and enhanced staff responsiveness remain critical areas requiring attention to sustain and further improve students' library experiences.

## **Conclusion**

This study examined undergraduate students' perceptions of and satisfaction with library services and the library environment at the University of Ilorin, Kwara State, Nigeria. Findings from the study indicate that the University of Ilorin Library plays a significant role in supporting students' academic activities by providing a wide range of information resources, services, and a conducive learning environment. Overall, undergraduate students demonstrated positive

perceptions and a high level of satisfaction with both library services and the physical and digital environment of the library.

Specifically, students expressed satisfaction with the adequacy of library resources, ease of using the online catalogue, effectiveness of user education programmes, and the helpfulness of library staff. The physical environment of the library—including cleanliness, safety, seating arrangement, lighting, and ventilation—was also rated favourably, contributing to a comfortable and supportive study atmosphere. These findings confirm that quality service delivery and a well-maintained library environment are key determinants of user satisfaction in academic libraries.

Despite the generally positive outcomes, the study identified some areas requiring improvement. Issues such as inconsistent internet connectivity, limited access to up-to-date academic materials, moderate staff responsiveness, and insufficient charging points were highlighted by students. These challenges, if not addressed, may negatively affect users' experiences and long-term satisfaction.

In conclusion, the study establishes that undergraduate students' satisfaction with the University of Ilorin Library is largely influenced by the combined effect of library services and the library environment. Continuous improvement and strategic planning are therefore necessary to sustain user satisfaction and enhance the library's contribution to teaching, learning, and research in the university.

## **Recommendations**

Based on the findings of this study, the following recommendations are proposed:

### **1. Improvement of Internet and ICT Infrastructure**

The University of Ilorin Library management should improve the reliability and speed of internet connectivity within the library. Expanding Wi-Fi coverage and upgrading ICT facilities will enhance access to electronic resources and support students' digital learning needs.

### **2. Regular Updating of Library Resources**

Efforts should be made to acquire current textbooks, journals, and electronic databases in line with students' academic programmes. Regular review and updating of collections will ensure continued relevance and improve user satisfaction.

### **3. Enhancement of Staff Responsiveness and User Support**

Library staff should receive continuous training in customer service, ICT skills, and user engagement to improve responsiveness and professionalism. Prompt assistance and positive staff-user interactions will further enhance students' library experiences.

#### **4. Provision of Adequate Charging Points and Power Support**

Additional charging points should be provided across library sections to accommodate the growing use of laptops and mobile devices. This will encourage longer study hours and improve convenience for users.

#### **5. Sustenance of a Conducive Library Environment**

The library should maintain its clean, safe, and quiet environment while addressing issues related to ventilation and overcrowding. Regular maintenance of furniture and facilities will ensure continued comfort and usability.

## References

- Afolabi, A. F. (2019). *Assessment of users' satisfaction with academic library services in Nigerian universities*. *Library Philosophy and Practice*.
- Aina, A. J., Omeluzor, S. U., & Oyovwe-Tinuoye, G. O. (2021). ICT application and user satisfaction in university libraries in Nigeria. *Information Development*, 37(3), 456–468.
- Ajala, E. B., & Ogunmodede, T. A. (2020). User satisfaction with electronic library services in Nigerian university libraries. *Journal of Academic Librarianship*, 46(4), 1–8.
- Akinbode, J., & Osinulu, I. (2020). Assessment of user satisfaction with library services in selected Nigerian universities. *Journal of Applied Information Science and Technology*, 13(1), 45–57.
- Ani, O. E., & Edem, N. (2012). ICT application in academic libraries in Nigeria: Prospects and problems. *International Journal of Library and Information Science*, 4(4), 82–89.
- Baker, S., & Wallace, R. (2020). Understanding library user satisfaction in the digital era. *The Journal of Academic Librarianship*, 46(5), 102176. <https://doi.org/10.1016/j.acalib.2020.102176>
- Bennett, S. (2020). Designing academic libraries for student success. *Libraries and the Academy*, 20(2), 219–232. <https://doi.org/10.1353/pla.2020.0015>
- Choi, Y., & Rasmussen, E. (2021). The impact of digital library environments on user satisfaction. *Online Information Review*, 45(3), 451–469. <https://doi.org/10.1108/OIR-09-2020-0408>
- Echezona, R. I., & Ugwuanyi, C. F. (2020). Library environment and students' use of academic libraries in Nigeria. *Library Management*, 41(6/7), 457–470.
- Ezeala, L. O., & Yusufu, B. (2011). User satisfaction with library resources and services in Nigerian universities. *Library Philosophy and Practice*.
- Hernandez, K., & Murphy, C. (2019). Environmental factors affecting user satisfaction in university libraries. *Library Management*, 40(8/9), 527–540. <https://doi.org/10.1108/LM-03-2019-0026>
- Ibrahim, A., & Salisu, A. (2019). Users' satisfaction with library services in Nigerian tertiary institutions. *International Journal of Academic Library and Information Science*, 7(5), 145–153.
- Kotler, P., & Keller, K. L. (2019). *Marketing management* (15th ed.). Pearson Education.

- Lawal, V. O., & Babatunde, S. O. (2021). Undergraduate students' perception of library services in Nigerian universities. *African Journal of Library, Archives and Information Science*, 31(2), 115–128.
- Lawson, J., & Potter, T. (2021). Physical space and library satisfaction: Evidence from university libraries. *College & Research Libraries*, 82(4), 603–617. <https://doi.org/10.5860/crl.82.4.603>
- Momodu, M. A. (2013). Library environment and its influence on academic performance of users in Nigerian universities. *Nigerian Libraries*, 46(1), 37–51.
- Momodu, M. O., & Aiyebilehin, J. A. (2020). Influence of library facilities on students' satisfaction in university libraries. *International Journal of Library and Information Science*, 12(3), 25–34.
- Ogbene, S. O. (2018). Library environment and users' satisfaction in academic libraries. *Library Philosophy and Practice*.
- Ogunrombi, S. A. (2022). Information literacy programmes and students' satisfaction with university libraries in Nigeria. *Library Management*, 43(1/2), 89–103.
- Ojo, R. A. (2012). Impact of service delivery on user satisfaction in university libraries. *International Journal of Academic Research in Business and Social Sciences*, 2(8), 250–256.
- Okiy, R. B. (2014). The role of library environment on the use of information resources in Nigerian universities. *Library Management*, 35(8/9), 648–661. <https://doi.org/10.1108/LM-06-2014-0068>
- Okiy, R. B. (2019). Physical facilities and users' satisfaction in Nigerian academic libraries. *Journal of Library and Information Sciences*, 7(1), 1–10.
- Olatokun, W. M., & Ifijeh, G. I. (2021). Challenges affecting service quality in Nigerian academic libraries. *Global Knowledge, Memory and Communication*, 70(8/9), 701–716.
- Oni, O. (2010). User satisfaction and library performance in Nigerian academic libraries. *Nigerian Library Journal*, 43(2), 54–67.
- Opara, U. N. (2008). The quality of library services and users' satisfaction in Nigerian university libraries. *Library Philosophy and Practice*.
- Oyewumi, O., & Adenike, T. (2018). Library environment and user satisfaction in selected universities in Oyo State, Nigeria. *Library Philosophy and Practice*.

Zeithaml, V. A., Bitner, M. J., & Gremler, D. D. (2018). Services marketing: *Integrating customer focus across the firm* (7th ed.). McGraw-Hill Education.

