

## Work design, ICT use and service delivery of librarians in private universities in Oyo State, Nigeria

**Ogungbade, Aderonke Ayobami**

Mountain Top University Library,  
Km 12, Lagos-Ibadan Expressway, Ogun State  
[aderonkeayobami3@gmail.com](mailto:aderonkeayobami3@gmail.com)

**Oloyede, Oluwayemisi Eunice**

Mountain Top University Library,  
Km 12, Lagos-Ibadan Expressway, Ogun State  
[ooloyede@mtu.edu.ng](mailto:ooloyede@mtu.edu.ng)

**Ozonuwe, Opene**

Crawford University, Igbesa, Ogun State, Nigeria  
[opozonuwe@gmail.com](mailto:opozonuwe@gmail.com)

### Abstract

The study investigated the influence of work design and ICT Use on the service delivery of librarians in private universities in Oyo State. A survey research design was adopted and data was collected from 374 undergraduates selected from a total population of 15,095 using simple random sampling. The method of data analysis used in the study is descriptive and inferential statistics, specifically simple linear regression and multiple linear regression at a 5% level of significance. Findings revealed that work design ( $\text{Adj } R^2 = 0.177$ ,  $F(1, 356) = 77.866$ ,  $p < 0.05$ ) and ICT Use ( $\text{Adj } R^2 = 0.055$ ,  $F(1, 356) = 21.839$ ,  $p < 0.05$ ) significantly influence service delivery of librarians in private university in Oyo state respectively and jointly ( $\text{Adj } R^2 = 0.176$ ,  $F(2, 356) = 39.121$ ,  $p < 0.05$ ). The study concludes that work design and ICT Use contribute to the quality service delivery of librarians in private universities in Oyo State. Recommendation includes the provision of ICT tools and the implementation of user feedback for quality service delivery.

**Keywords:** ICT Use, Libraries, Oyo State, Private University, Service delivery, Work design

### Introduction

Libraries are essential as long as humans seek new knowledge of the changing world. Libraries are service-oriented units offering professional services, including organization and provision of access to information resources in support of research, teaching, and learning (Soyemi & Oloyede, 2022). To enhance service delivery, libraries are exploring innovative ways to provide high-quality, efficient, and effective services to users. According to Uwanyiligira (2020), service delivery is the process of providing a service to an organization's users or internal clients. Service delivery in libraries involves the provision of relevant information resources, adequate infrastructure, and manpower to enhance user experience. For librarians who are at the forefront of service delivery, effective service delivery is a vital endeavour as it is crucial for maintaining user satisfaction and the library's reputation, as well as the survival and success of service organizations (Agbonifoh & Osifo, 2017).

From existing literature, there are indications of inadequate quality of service delivery in private university libraries in Nigeria (Basil, Josiah & Eghwubare, 2016), primarily due to factors such as unreliable power supply, lack of trained staff, and poor work design among librarians. The absence of a well-designed service delivery process is also a challenge for university libraries in Nigeria

(Vera & Ufuoma, 2021). However, using Information and Communication Technology (ICT) can facilitate prompt service delivery, ensuring minimal delays and contributing to user retention.

ICT and Work design play a crucial role in enhancing quality service delivery (Arinda, 2022). Work design involves the conscious efforts to organize tasks, duties and responsibilities into a unit of work to achieve certain objectives. It answers questions such as the specific duties to be performed, who should perform them, the appropriate methods, and the designated location. An effective work design involves engaging employees in tasks that contribute to productivity, performance, and overall organizational success. Munyiri (2018) emphasized the significance of work design in the performance of librarians. Appropriate work design, as guided by the job characteristics model, is crucial for improving librarians' performance (Parvin & Kabir, 2011). Implementing flexible work arrangements and suitable job roles can meet employers' demands while enhancing librarians' work-life balance, job satisfaction, and overall performance (Ebikebina & Nwimana, 2020).

Quality of service delivery is enhanced by Information and Communication Technology (ICT) through the management, processing, and communication of information. Libraries are adapting to the digital age by harnessing ICT to enhance traditional services and engage users electronically, particularly via social media. The application of ICT in university libraries has facilitated timely and rapid access to information, significantly transforming information service delivery (Essien, Lu, Abredu, & Zotoo, 2022). New web-based services, such as virtual reference services, online reservation systems, Internet services and Online Public Access Catalogs (OPAC), have been introduced to respond to the changing information-seeking pattern of library users (Boachie, 2018). ICT is invaluable in the current information era and its utilization in libraries ranges from routine tasks like user registration to more complex activities like cataloguing and digital institutional repositories (Gakibayo, Ikoja-Odongo & Okello-Obura, 2018).

Studies on the quality service delivery of librarians in academic libraries in Oyo state are few and are centred on government-owned universities. This study aims to investigate the influence of work design and ICT Use on the quality service delivery of librarians in private universities in Oyo state, Nigeria.

### **Statement of the Problem**

Library service delivery is crucial for users to access information quickly and easily. However, challenges such as lack of efficiency, inadequate resources, inadequate energy supplies and inadequate work design can hinder the quality-of-service delivery. In developed countries, there are rare cases of poor service delivery, perhaps this is due to the consciousness of users' satisfaction among librarians. However, in developing countries, poor service delivery is evident with attendant challenges such as inadequate facilities, ineffective communication, limited user input strategies, staff incompetence, and a dearth of ICT skills among library staff (Ameyaw, Kwakye & Asante, 2014; Amaechi, Enweani & Eke, 2018). Patronage at libraries has declined as a result of poor service delivery and declining customer satisfaction. Understanding the factors that influence service delivery in these libraries will help identify areas for improvement and enable the development of strategies to enhance the quality of library services, thereby attracting more patrons and meeting their information needs effectively. Therefore, this study investigates the influence of work design and information communication technology use on the service delivery of librarians in private universities in Oyo State, Nigeria.

### **Objectives of the Study**

The main objective of the study is to investigate the influence of work design and ICT use on the quality service delivery of librarians in private universities in Oyo State, Nigeria. The specific objectives of the study are to;

1. ascertain the level of quality service delivery of librarians in private universities in Oyo State, Nigeria;
2. determine the prevalent work design of librarians in private universities in Oyo State, Nigeria;
3. determine the level of ICT use of librarians in private universities in Oyo State, Nigeria;
4. determine the influence of work design on quality service delivery of librarians in private university libraries in Oyo State, Nigeria;
5. find out the influence of ICT use on quality service delivery of librarians in private universities in Oyo state, Nigeria;
6. ascertain the combined significant influence of work design and ICT use on quality service delivery of librarians in private universities in Oyo State, Nigeria and

### **Hypotheses**

- H<sub>01</sub>: Work design has no significant influence on the quality service delivery of librarians in private universities in Oyo State, Nigeria.
- H<sub>02</sub>: ICT use has no significant influence on the quality service delivery of librarians in private universities in Oyo State, Nigeria.
- H<sub>03</sub>: Work design and ICT use have no significant combined influence on the quality service delivery of librarians in private universities in Oyo State, Nigeria.

### **Review of Literature**

#### **Concept of Quality Service Delivery**

Service delivery is vital in libraries, ensuring patron satisfaction by managing the acquisition, processing, and cataloguing of resources, as well as providing loan services and disseminating information. Key indicators include quality services, quick response, and accountability. In academic libraries, contemporary technology plays a crucial role in delivering timely and relevant information to customers (Uwanyiligira, 2020; Popoola & Haliso, 2011; Justina et al., 2020; Kotterman, 2010).

Uganneya (2011) underscores the importance of library activities synergizing for timely and quality services, aligning with Ranganatan's fifth law, "save the users time." Service delivery aims to meet users' information needs promptly, enhancing productivity. ICT integration has transformed librarians' roles from traditional distribution to facilitating round-the-clock access. Modern technology, including online catalogues, ensures accurate and timely information, revolutionizing library services for improved patron experience (Agbo, 2015).

Nwamarah (2002) observes that effective service delivery in Nigerian universities depends to a large extent on how university managers have used the available human and material resources to make the library functional by effectively providing information sources and services that support the programmes of their institutions. The quality and quantity of a university library's collections and knowledge sharing are major indicators of effective service delivery (Tahleho, 2016). Also, occasional training for librarians to improve their skills in disseminating appropriate information materials is another dimension of service delivery (Agoh, Annune & Idachaba, 2021; Igbokwe-Ibeto, 2019).

Five dimensions of service delivery reviewed in the study are tangibles, reliability, responsiveness, assurance and empathy (Zeithaml, Parasuraman and Berry, 1988). These dimensions are what patrons consider for evaluating the quality of services rendered. For this research, four of the five dimensions will be discussed as indicators for service delivery. The four dimensions of service quality adapted for this research are tangibles, responsiveness, reliability and assurance.

**Tangibles:** Tangibles reflect the physical aspects of the library, including physical facilities, equipment, personnel, and communication materials and it focuses on the impact of these elements on users (Sureshchandar, Rajendran & Anantharaman, 2002). Tangibles in the context of this study are the availability of physical facilities, equipment, print and non-print resources and other resources present in the library environment to facilitate quality service delivery to users.

**Reliability:** This involves the ability of an organization to deliver the promised service dependably and accurately. Reliability is the act of providing library service accurately, timely and credibly (Zeithaml, Parasuraman and Berry, 1988).

**Responsiveness:** is the willingness of employees in an organization to provide rapid service. Parasuraman and Berry (1988) underline the significance of responsiveness in delivering timely service and improving the library user experience.

**Empathy:** It has to do with the caring, individualized attention the organization can provide its users. Library service quality is influenced by the interaction between users and service providers, with empathy and approachability being key factors.

**Assurance:** It is the knowledge, competence and courtesy of employees which are essential in fostering trust and confidence in customers. Assurance in the library deals with the ability of the library staff to improve users' experience by providing relevant information promptly to meet the users' information needs as such creating confidence in the users of the service.

### **Concept of Work Design in Organizations**

Work design involves structuring job content, methods, and organizational relationships to efficiently utilize skills, enhance service delivery, and boost productivity and worker satisfaction. Armstrong emphasizes starting with task analysis, considering motivation factors, and designing roles for optimal employee performance. Properly designed jobs play a crucial role in uplifting employees. The work characteristics model identifies skill variety, task identity, task significance, feedback, and autonomy as key dimensions. Brown and McIntosh's research underscores workplace characteristics' impact on employee performance, with controlled factors positively affecting job satisfaction and simplification leading to improved performance. This research informs models isolating job aspects influencing satisfaction and performance, utilizing techniques like skill variety and autonomy in work design (Armstrong 2018; Brown & McIntosh, 2018).

**Skill variety** refers to the diverse skills an employee uses while completing a task which influences employees' engagement, motivation and satisfaction (Hackman & Oldham). For instance, assigning additional duties like stocking or display changes for sales clerks broadens skill variety. It's crucial to differentiate skill variety from task variety, the latter involving various tasks but potentially increasing the risk of work overload (Humphrey et al., 2007).

**Task identity** refers to an employee's ability to recognize and complete specific job outcomes, such as completing a project or meeting customer needs. It is influenced by specialization and division of labour.

**Task significance** refers to the impact of the job on the employee as well as other members of the organization. Grant's (2008) field experiments showed that task significance significantly improved service delivery for fundraisers and lifeguards while maintaining other task characteristics.

**Feedback** refers to the degree to which employees can tell how well they are doing based on direct sensory information from the job itself. Humphrey et al (2007) highlight the importance of feedback in determining an individual's performance in a job.

### **Concept of ICT Use in Libraries**

Information Communication Technology (ICT) encompasses diverse tools like radio, TV, cell phones, computers, and services such as video conferencing. In libraries, ICT employs Internet and computer-based technologies, enhancing information services through efficient gathering, storage, organization, and transmission of information. ICT significantly impacts modern life, contributing to progress in communication, education, business, and healthcare, transforming organizational functions and boosting productivity through global communication and collaboration. The internet, a core ICT component, enables global data transfer, facilitating instantaneous communication, international library access, and resource availability. In libraries, ICT adoption includes technologies like Library Automation Systems, Digital Libraries, Online Public Access Catalogue (OPAC), Library Websites, E-Resources, RFID, and social media. Academic libraries use ICT for archiving, preservation, digital repositories, resource sharing, and automation in functions like acquisition, cataloguing, circulation, database search guides, and current awareness services. Acceptance of ICT in libraries revolutionizes operations, improving service quality and resource accessibility. The technological acceptance model identifies types, purposes, and frequency of ICT use as crucial factors influencing its integration in library settings.

### **Work Design and Service Delivery by Librarians**

Work design, involving job structure and responsibilities, profoundly impacts individual, group, and organizational outcomes across sectors. Well-designed work correlates with improved employee performance, engagement, service delivery, and well-being. Various industries, including manufacturing, healthcare, ICT, academia, banking, hospitality, tourism, and libraries, recognize the importance of work design. Empirical evidence underscores its role in quality service delivery (Manufacturing firms (Opara & Opara, 2017), health care sector (Hamba, 2019), ICT (Uruthirapathy & Grant, 2015), Academia (Opara & Perpetua, 2021), Banking sector (Teryima & Abubakar, 2018), hospitality and tourism (Kukoyi & Iwuagwu, 2015), and even libraries (Badmus & Ogunlana, 2020). Studies reveal factors like task identity, skill variety, and autonomy influence employee satisfaction, with autonomy being highly valued. Librarians face challenges in achieving a balanced work design, including work attitude, career growth, supervisory relationships, organizational climate, communication, and feedback. Despite these challenges, only a few librarians' express willingness to leave for better work design. In academic libraries, constant role changes and complexities pose challenges. Technological advancements influence library assistants' work design, enhancing job roles and service delivery. Workplace quality and communication networks impact employee attitudes and service delivery across industries.

Studies in various sectors, including commercial banks, emphasize the statistical connection between work design and employee performance, highlighting its positive correlation with service delivery, profitability, staff motivation, and autonomy. The way work is designed impacts how employees perceive their roles and, subsequently, how they carry out their duties, influencing employee attitudes and motivation.

## ICT Use and Quality Service Delivery by Librarians

The integration of recent technologies for information service delivery in Nigerian libraries faces challenges, including short lifecycles, potential obsolescence, financial constraints, inadequate technical skills, erratic electricity supply, and user reluctance. Librarians' aversion to technology and lack of computer familiarity also impact productivity. Studies reveal that there is a correlation between ICT use and service delivery, emphasizing higher correlations in Reference, Digital, and Circulation services compared to social media (Essien, Lu, Abredu & Zotoo, 2022; Adebayo, Ahmed, & Adeniran, 2018). Conflicting reports suggest the central role of social media in quick information dissemination (Bhoi, 2017). Academic libraries in Nigeria experience a shift to ICT-based processes, but challenges persist, hindering services like selective dissemination of information (SDI). Despite challenges, studies highlight the positive impact of ICT on library service delivery, enhancing loan services, reader advisory, and internet services. Embracing diverse digital strategies, libraries provide 24/7 services through tailored collections, SMS notifications, online reference, social networks, websites, mailing lists, and OPACs (Mommoh & Emmanuel, 2019; Aiyebelehin, Ikenwe & Okpetu, 2017).

ICT's advancement in libraries significantly improves service quality, necessitating librarians to develop diverse skills for 21st-century demands. Studies emphasize the critical role of ICT in Nigerian libraries for effective service delivery, correlating ICT use with job performance (Abu & Okafor, 2023). However, more focused studies are needed on ICT use and service delivery in the librarianship profession, particularly in Oyo State, where the perceived usefulness and attitude of library staff significantly influence ICT utilization for service delivery, while perceived ease of use may not have a significant impact in some cases.

### Methodology

The survey research design was adopted for this study. The population of the study consists of 15,095 students in seven (7) private universities in South-west, Nigeria. A sample size of 374 was determined using Krejcie and Morgan formula and selected using random sampling. 374 structured questionnaires were distributed for data collection. 368 completed questionnaires were retrieved, however, only 358 were found useable, yielding a response rate of 92%. The collected data was analyzed using descriptive statistics as well as multiple linear regression statistics. Ethical consideration was sorted and received from the institutions that participated in this study.

### Population

The population of undergraduates in private universities in Oyo State, Nigeria, was 15,095. This included Ajayi Crowther University, Oyo, with 4,532 undergraduates; Lead City University, Ibadan, with 5,324 undergraduates; Kola-Daisi University, Ibadan, with 785 undergraduates; Dominican University, Ibadan, with 225 undergraduates; Precious Cornerstone University, Ibadan, with 3,152 undergraduates; Atiba University, Oyo, with 364 undergraduates; and Dominion University, Ibadan, with 713 undergraduates.

### Table 2: Sample Size of Undergraduates in Private Universities in Oyo State, Nigeria Using Krejcie and Morgan Formula

The sample size for each university was calculated based on the total undergraduate population. For Ajayi Crowther University, Oyo, with a population of 4,532, the sample size was 112. Lead City University, Ibadan, with a population of 5,324, had a sample size of 132. Kola-Daisi University, Ibadan, with a population of 775, had a sample size of 19. Dominican University, Ibadan, with a population of 225, had a sample size of 6. Precious Cornerstone University, Ibadan, with a population of 3,142, had a sample size of 78. Atiba University, Oyo, with a population of

364, had a sample size of 9. Dominion University, Ibadan, with a population of 713, had a sample size of 18. In total, the sample size across all institutions was 374.

## Result and Discussion of Findings

### Analysis of Research Questions

**Research Question One:** What is the level of quality service delivery by librarians in private universities in Oyo State?

Service Delivery	SA Fre q. (%)	A Fre q. (%)	D Fre q. (%)	SD Freq. (%)	Mea n( $\bar{x}$ )	Standar d Deviation (SD)
<b>Tangible</b>					<b>3.07</b>	<b>0.76</b>
The physical facilities of the library, such as seating arrangement, lighting, and ventilation, are conducive to a comfortable and pleasant experience for me.	116 (32.4)	205 (57.3)	25 (7.0)	12 (3.4)	3.1 9	0.70
The library resources, such as books, journals, databases, and digital materials, are easily accessible and well-organized for me to find and use.	89 (29.1)	212 (59.2)	44 (12.3)	13 (3.6)	3.0 5	0.72
The library equipment, such as computers, printers, scanners, and copiers, are functional to support my needs	99 (27.7)	187 (52.2)	58 (16.2)	14 (3.9)	3.0 4	0.77
The library displays, exhibits, and promotional materials are attractive, up-to-date, and informative, enhancing the visual appeal and user experience of the library.	95 (26.5)	194 (54.2)	40 (11.2)	29 (8.1)	3.0 0	0.84
<b>Reliability: Librarians</b>					<b>2.98</b>	<b>0.74</b>
are consistently meet my expectations in terms of providing reliable services	128 (35.8)	214 (59.8)	10 (2.8)	6 (1.7)	3.30	0.60
are proactive in identifying and resolving any issues or problems related to service delivery	73 (20.4)	225 (62.8)	34 (6.7)	36 (10.1)	2.94	0.82
are prompt in responding to my requests or inquiries.	74 (20.7)	198 (55.3)	72 (20.1)	14 (3.9)	2.9 3	0.75
are consistent in their service Delivery, regardless of the time or day of the week	62 (17.3)	221 (61.7)	41 (11.5)	34 (9.5)	2.8 7	0.81
<b>Responsiveness: Librarians</b>					<b>3.01</b>	<b>0.75</b>
are readily available and approachable for my questions or inquiries.	101 (28.2)	206 (57.5)	34 (9.5)	17 (4.7)	3.0 9	0.75
actively listen to my needs and concerns and provide appropriate solutions or recommendations.	83 (23.2)	207 (57.8)	43 (12.0)	25 (7.0)	3.0 3	0.74
Provides timely updates and notifications about changes or disruptions to library services or resources.	83 (23.2)	207 (57.8)	43 (12.0)	25 (7.0)	3.0 0	0.81

shows a willingness to go the extra mile to provide assistance or resolve issues for library users.	62 (17.3)	227 (63.4)	50 (14.0)	19 (5.3)	2.93	0.72
<b>Assurance: Librarians</b>					<b>3.01</b>	<b>0.74</b>
adhere to professional ethics and standards such as confidentiality and impartiality, in their service delivery	94 (26.3)	218 (60.9)	33 (9.2)	13 (3.6)	3.10	0.70
are trained and updated on the latest tools, and resources to enhance their service delivery	79 (22.1)	208 (58.1)	52 (14.5)	19 (5.3)	3.01	0.76
take ownership and accountability for their actions and decisions in delivering library services.	74 (24.9)	228 (63.7)	36 (10.1)	20 (5.6)	3.00	0.73
maintains a clean, organized, and well-maintained library environment to ensure efficient and effective service delivery.	78 (21.8)	190 (53.1)	77 (21.5)	13 (3.6)	2.93	0.76
<b>Average Mean</b>					<b>3.02</b>	<b>0.75</b>

Table 4. shows that on a scale of 4, librarians delivered quality services to users in private university libraries in Oyo State, Nigeria to a high level ( $\bar{x} = 3.02$ ,  $SD = 0.75$ ), in terms of tangibles ( $\bar{x} = 3.07$ ,  $SD = 0.76$ ), responsiveness ( $\bar{x} = 3.01$ ,  $SD = 0.75$ ), assurance ( $\bar{x} = 3.01$ ,  $SD = 0.74$ ) and reliability ( $\bar{x} = 2.98$ ,  $SD = 0.74$ ). This suggests that librarians deliver quality services to users in private university libraries in Oyo State more in terms of tangibles, responsiveness and assurance; and slightly lower in the aspect of reliability.

**Research Question Two:** What are the prevalent work designs of librarians in the private universities in Oyo State?

Work Design	SA Freq. (%)	A Fre q. (%)	D Fre q. (%)	SD Freq. (%)	Mea n( $\bar{x}$ )	Standard Deviation (SD)
<b>Skill Variety: the level at which librarians</b>					<b>3.02</b>	<b>0.71</b>
have a diverse range of skills and abilities that enable them to perform various tasks and responsibilities effectively	80 (22.3)	230 (64.2)	41 (11.5)	7 (4.7)	3.07	0.64
possesses strong organizational and time management skills that enable them to manage and prioritize library tasks and responsibilities efficiently.	77 (21.5)	212 (59.2)	51 (14.2)	18 (5.0)	3.05	0.75
are proficient in using different types of library resources, such as books, journals, databases, and digital materials to support my information needs.	88 (24.6)	196 (54.7)	62 (17.3)	11 (3.4)	3.01	0.75
possesses a wide array of technical, informational and communication skills that are essential for delivering high-quality library services.	62 (17.3)	227 (63.4)	50 (14.0)	19 (5.3)	3.01	0.65
<b>Task Identity: The task performed by librarians</b>					<b>2.97</b>	<b>0.73</b>
are easily Identifiable	98 (27.4)	220 (61.5)	27 (7.5)	13 (3.6)	3.13	0.69

are aligned with the needs and expectations of students	76 (21.2)	213 (59.5)	54 (15.1)	15 (4.2)	3.00	0.73
are an essential part of my experience in accessing and utilizing library services	67 (18.7)	212 (59.2)	65 (18.2)	14 (3.9)	2.93	0.72
Contributes to my learning and academic success.	58 (16.2)	213 (59.5)	55 (15.4)	32 (8.9)	2.83	0.80
<b>Task Significance: The tasks performed by librarians</b>					<b>2.98</b>	<b>0.72</b>
are important for supporting my academic success and learning.	79 (22.1)	230 (64.2)	37 (10.3)	12 (3.4)	3.05	0.68
are crucial in helping me develop effective research strategies.	81 (22.6)	205 (57.3)	61 (17.0)	11 (3.1)	3.00	0.73
play a significant role in helping me access relevant information for my research and assignments.	69 (19.3)	214 (59.8)	57 (15.9)	18 (5.0)	2.93	0.74
are valuable in facilitating my academic excellence.	68 (19.0)	213 (63.7)	61 (17.0)	16 (4.5)	2.93	0.73
<b>Feedback: my librarians</b>					<b>2.81</b>	<b>0.84</b>
takes student feedback into consideration when designing or modifying library services, programs, and initiatives.	62 (17.3)	164 (45.8)	68 (19.0)	64 (17.9)	3.17	0.67
actively seeks feedback from students on their work and services.	70 (19.6)	185 (51.7)	78 (21.8)	25 (7.1)	2.84	0.82
use feedback from students to make changes designed to better meet the needs and expectations of students.	59 (16.5)	148 (41.3)	101 (28.2)	50 (14.0)	2.62	0.97
are responsive to feedback provided by students on their work and services.	55 (15.4)	161 (45.0)	94 (26.3)	48 (13.4)	2.62	0.90
<b>AVERAGE MEAN</b>					<b>2.97</b>	<b>0.75</b>

Table 4. depicts that respondent generally agreed that there is suitable work design in private universities in Oyo State ( $\bar{x} = 2.97$ ,  $SD = 0.75$ ) on a scale of four.

**Research Question Three:** What is the level of ICT use of libraries in private universities in Oyo State, Nigeria?

Level of ICT Use	VO Freq.(%)	O Freq. (%)	S Freq. (%)	N Freq. (%)	Mean( $\bar{x}$ )	Standard Deviation (SD)
<b>Frequency of ICT use:</b>					<b>2.92</b>	<b>0.79</b>
<b>The level at which librarians</b>						
often use ICT tools to assist students in finding and accessing information, resources, or services.	52 (14.5)	174 (48.6)	99 (27.7)	52 (14.5)	3.17	0.67
often use ICT tools or technologies for library services, programs, or events for students, such as through social media, digital signage, or online announcements.	61 (17.0)	139 (38.8)	82 (22.9)	76 (21.2)	2.95	0.80
often use ICT tools or technologies to communicate with students, such as through email, chat, or social media, to	54 (14.8)	113 (31.6)	111 (31.0)	81 (22.6)	2.93	0.70

provide information, support, or assistance.

often use technologies, such as computer 75 200 65 18 2.63 0.97  
online databases, electronic resources, (209) (55.9) (18.2) (5.0)  
and digital devices, during my visits to  
the library.

	SA Freq. (%)	A Freq. (%)	D Freq. (%)	SD Freq. (%)	Mean( $\bar{x}$ )	Standard Deviation (SD)
<b>Purpose of ICT Use</b>					<b>2.93</b>	<b>0.76</b>
The use of ICT tools by the library staff enhances my ability to find and use library resources effectively for my academic needs.	61 (17.0)	225 (61.5)	58 (16.2)	14 (3.4)	3.01	0.72
The use of ICT tools or technologies by librarians enhances my ability to communicate with librarians for inquiries, requests, or feedback.	61 (17.0)	220 (61.5)	48 (13.4)	29 (8.1)	2.95	0.80
Librarians possess strong organizational and time management skills that enable them to manage and prioritize library tasks and responsibilities efficiently.	80 (22.3)	188 (52.5)	70 (19.6)	20 (5.6)	2.90	0.72
The use of ICT tools by librarians helps me to access information resources or services more easily and conveniently.	100 (28.2)	227 (63.4)	19 (5.3)	12 (3.4)	2.87	0.78
<b>Types of ICT Use: My librarians</b>					<b>2.73</b>	<b>0.85</b>
use online reference tools, such as virtual reference desks, chat services, or email, to provide reference assistance to me.	54 (15.1)	227 (64.4)	58 (16.2)	19 (5.3)	2.93	0.76
use online databases, e-journals, or e-books to provide access to digital resources for library users.	79 (22.1)	222 (62.0)	40 (11.2)	17 (4.7)	2.90	0.80
use social media platforms, such as Facebook, Twitter or Instagram, to promote library resources, events, or services to students	86 (24.0)	189 (52.8)	62 (17.3)	21 (5.9)	2.68	0.83
use online communication tools, such as email, chat, or video conferencing, to communicate with students for inquiries, requests, or consultations	68 (19.0)	211 (58.9)	49 (13.7)	30 (8.4)	2.39	0.99
<b>Average Mean</b>					<b>2.86</b>	<b>0.80</b>

Table 4. shows that ICT tools were utilized in private universities in Oyo State to a moderately high level, ( $\bar{x} = 2.86$ ,  $SD = 0.80$ ) on a four-point scale. Respondents rated the purpose of ICT use sub-construct highly ( $\bar{x} = 2.93$ ,  $SD = 0.76$ ), indicating a strong belief that ICT enhances undergraduates' ability to find and use library resources, communicate with librarians, receive timely support in research, and access information conveniently. The analysis suggests a high level of ICT application in private university libraries in Oyo State concerning the purpose, frequency, and types of ICT use.

## Test of Hypotheses

The pre-set level of significance for this study is 0.05. the hypotheses presumed that there was no significant influence between the variables under consideration. If the P-value which indicates the significance or the probability value exceeded the pre-set level of significance ( $P > 0.05$ ), the hypothesis stated in the null form was accepted, however, if the P-value was less than or equal to 0.05 ( $P \leq 0.05$ ), the null hypothesis was rejected.

**H<sub>01</sub>:** Work design has no significant influence on the quality service delivery of librarians in private universities in Oyo State, Nigeria.

**Table 5: Influence of Work Design on Quality Service Delivery in University Libraries**

Variable				p	Adj. R <sup>2</sup>	R <sup>2</sup>	ANO VA Sig	F	df
	B	Std. Error	Beta (β)	T					
(Constant)	6.89	0.667		10.25 4	0.000	0.177	0.179	0.000	77.86 6
<b>Work Design</b>	0.13	0.015	0.424	8.824	0.000				356

### Dependent Variable: Service Delivery

Table 5. revealed a significant influence of work design on the service delivery of librarians in private universities in Oyo State, Nigeria (Adj R<sup>2</sup> = 0.177, F (1, 356) = 77.866,  $p < 0.05$ ), accounting for 17.9% of the variation. The null hypothesis, suggesting no significant impact, was rejected. The model indicates a moderate positive influence of work design on service delivery. The regression model establishes work design as a predictor of service delivery in private university libraries in Oyo State. This implies that enhancing the work design for librarians in private universities would positively impact service delivery, while unfavorable work design might lead to poorer service delivery.

**H<sub>02</sub>:** ICT Use has no significant influence on service delivery in private universities influence on service delivery in private universities in Oyo State, Nigeria.

**Table 6: Influence of ICT Use on Quality Service Delivery in Universities Libraries**

Variable				p	Adj. R <sup>2</sup>	R <sup>2</sup>	F	ANO VA Sig	df
	B	Std. Error	Beta (β)	T					
(Constant )	9.721	0.639		15.225	.000	0.055	0.058	21.839	1
<b>ICT Use</b>	0.86	0.018	0.240	4.673	.000				356

### Dependent Variable: Service Delivery

Table 6. depicts that ICT Use has a significant influence on the service delivery of librarians in private universities in Oyo State, Nigeria (Adj. R<sup>2</sup> = 0.055, F (1,356) = 21.839,  $p < 0.05$ ). The model shows that ICT Use could explain 0.58% variation ( $R^2 = 0.058$ ) in service delivery of librarians at private university in Oyo State. Therefore, the null hypotheses which state that ICT Use has no significant influence on service delivery of librarians in private university in Oyo State, Nigeria was rejected. The model further shows that ICT Use has a moderate positive (F (1,356) =

21.839,  $p < 0.05$ ) significant influence on service delivery. This result shows that ICT Use determines the quality-of-service delivery of librarians in private university libraries in Oyo State. This suggests that increased application of ICT Use for service delivery would improve service delivery in university libraries in Oyo State; while reduction in the application of ICT Use for service delivery would lead to inadequate service delivery of librarians in private universities in Oyo state.

**H03:** Work design and ICT Use have no combined influence on service delivery in private university libraries in Oyo State, Nigeria.

**Table 7: Combined Influence of Work Design and ICT Use on Service Delivery in Private University Libraries**

Variable	B	Std. Error	Beta ( $\beta$ )	t	P	R <sup>2</sup>	Adj. R <sup>2</sup>	F	Df	P
(Constant)	6.629	0.732		9.061	0.000					
Work design	0.014	0.020	0.039	0.699	0.485	0.181	0.176	39.121	2	0.000
ICT Use	0.127	0.017	0.404	7.294	0.000				355	

**Dependent Variable: Service Delivery**

Table 7 indicates that work design and ICT Use have a combined significant influence on service delivery (Adj.  $R^2 = 0.176$ ,  $F(2, 355) = 39.121$ ,  $p < 0.05$ ) and could jointly explain 17.6% variation (Adj.  $R^2 = 0.176$ ) in service delivery of librarians in private universities in Oyo State, Nigeria. ICT Use contributed more to the service delivery of librarians in private universities in Oyo State. However, work design had no significant influence on service delivery. Therefore, the null hypothesis was rejected. It therefore follows that for librarians in private universities in Oyo State to succeed in achieving quality service delivery, the two factors should be put into consideration. Nonetheless, the result suggests that giving priority to ICT Use since it had almost a perfect correlation with (0.404) with service delivery

**H04a:** Work design indicators do not relatively significantly contribute to the service delivery of librarians in private universities in Oyo State, Nigeria.

**Table 8: Influence of Work design indicators on service delivery of librarians in private universities libraries**

Variable	B	Std. Error	Beta ( $\beta$ )	T	P	Adj. R <sup>2</sup>	R	F	Df	P
(Constant)	6.101	0.659		9.254	0.000	0.236	0.245	28.631	4	0.000
Skill variety	0.273	0.057	0.274	4.771	0.000				353	

<b>Task Significance</b>	0.290	0.064	0.252	4.552	0.000
<b>Task Identity</b>	0.098	0.054	0.104	1.806	0.072
<b>Feedback</b>	-0.046	0.039	-0.061	-1.195	0.233

#### Dependent Variable: Service Delivery

Table 8. depicts that work design indicators jointly significantly contribute to service delivery (Adj.  $R^2 = 0.236$ ,  $F(4, 353) = 28.66311$ ,  $p < 0.05$ ) and could jointly explain 23.6% variation (Adj.  $R^2 = 0.236$ ) in service delivery of librarians in private universities in Oyo State. This implies that joint improvement in service delivery in terms of Skill variety, Task Significance, Task Identity and feedback could lead to enhanced service delivery of librarians in private universities in Oyo State. From the relative perspective, Skill variety ( $\beta = 0.149$ ,  $t = 2.879$ ,  $p < 0.05$ ), Task Significance ( $\beta = 0.294$ ,  $t = 5.762$ ,  $p < 0.05$ ), task identity ( $\beta = 0.165$ ,  $t = 3.333$ ,  $p < 0.05$ ) and feedback ( $\beta = 0.064$ ,  $t = 1.293$ ,  $p > 0.05$ ) positively significantly influenced service delivery of librarians in private universities in Oyo State. Therefore, the null hypothesis which states that work design does not have a relatively significant influence on service delivery of librarians in private universities in Oyo State was rejected.

**H<sub>04b</sub>:** ICT Use indicators do not relatively significantly contribute to the service delivery of libraries in private universities in Oyo State, Nigeria.

**Table 9: influence of ICT Use indicators on service delivery of librarians in private universities libraries**

Variable	B	Std. Error	Beta ( $\beta$ )	T	P	$R^2$	Adj. $R^2$	F	Df	P
(Constant)	9.480	0.640		14.816	0.000	0.083	0.075	10.705	3	0.000
<b>Purpose of ICT Use</b>	0.249	0.056	0.273	4.491	0.000				354	
<b>Types of ICT Use</b>	0.006	0.056	0.007	0.111	0.912					
<b>Frequency of ICT Use</b>	0.020	0.047	0.025	0.429	0.668					

#### Dependent Variable: Service Delivery

Table 9 depicts that ICT use indicators collectively and significantly contribute to the service delivery of librarians in private universities in Oyo State, Nigeria (Adj.  $R^2 = 0.75$ ,  $F(3, 354) = 10.705$ ,  $p < 0.05$ ). The model suggests that the Purpose of ICT Use, Types of ICT Use, and Frequency of ICT Use together explain 7.5% of the variation in librarians' service delivery. Purpose of ICT Use had a positive and significant influence ( $\beta = 0.249$ ,  $t = 4.491$ ,  $p < 0.05$ ), while Types of ICT Use and Frequency of ICT Use did not show a significant impact. Consequently, the null hypothesis, suggesting no relative significant influence of ICT Use on service delivery, was rejected. The analysis emphasizes that improving librarians' service delivery in private universities in Oyo State can be achieved through enhancing the Purpose of ICT Use.

## Discussion of Findings

Research question one revealed that librarians in private universities in Oyo State, Nigeria generally provide quality service delivery to users, particularly in terms of tangibles and reliability. However, there were relatively lower ratings in the aspects of responsiveness and assurance. This is in line with previous studies by Baharuddin and Ariff (2015); Ikonne, Madukoma and Akanmidu (2021) emphasized the importance of librarians' reliability in service delivery. These studies found that librarians' failure to meet promises and provide ICT-related services negatively impacted user satisfaction. On the other hand, the tangible aspects of the library, including physical facilities, resources, and equipment, received positive ratings. Users expressed satisfaction with seating arrangements, lighting, ventilation, accessibility of resources, and functionality of equipment. These findings align with the idea of Obi (2023) and Adegoke, Akor, and Abubakar (2023) that a conducive environment plays a significant role in user satisfaction. Librarians need to provide proper lighting and ventilation to attract users and create a pleasant atmosphere. However, there are also instances where the service delivery of librarians is negatively affected by unfavourable work environments. Edmond and Anthony (2022) reported low service delivery in Ambrose Alli University Library, Ekpoma, Edo State, due to the lack of a conducive work environment. This shows that the quality-of-service delivery can vary depending on the specific library.

The findings indicate that librarians should focus on meeting promises and providing timely updates to users regarding changes or disruptions in library services or resources. Additionally, librarians should strive to be readily available and approachable for user inquiries and concerns. These findings imply that private university libraries need to enhance their communication and customer service skills to improve responsiveness and assurance.

Research question two sheds light on the work design of librarians in private universities in Oyo State, Nigeria. The study revealed that undergraduates in these universities hold positive perceptions regarding the skills, abilities, and tasks performed by librarians, with an average mean score of 2.97 on a 4-point scale. This indicates that students recognize the expertise of librarians and value the importance of their work, which aligns with their needs and expectations. The recognition of librarians' skills and their ability to support academic success and learning emphasizes their crucial role in delivering high-quality library services. The significance of work design in service delivery is supported by previous studies in various sectors, including manufacturing firms, healthcare, ICT, academia, banking, hospitality, tourism, and libraries. These studies, such as those conducted by Badmus and Ogunlana (2020) highlight the importance of work design in ensuring effective service delivery. In the context of private university libraries in Oyo State, undergraduates perceive librarians as possessing a diverse range of technical, informational, and communication skills, which are essential for delivering quality library services. This perception reflects the students' trust in librarians to provide the necessary support and assistance in accessing and utilizing information resources effectively. The findings of this study are consistent with the research conducted by Abid, Sarwar, Imran, Jabbar, and Hannan (2013), which emphasized the significance of task identity and skill variety in influencing employee satisfaction. Employees value skill variety in carrying out their duties and appreciate feedback from users. Task identity and feedback are critical dimensions of work design that positively impact service delivery, as supported by Ahmad (2018), Abid, Sarwar, Imran, Jabbar, and Hannan (2013), and Tsuma (2015).

The study indicates the positive perceptions of undergraduates in private universities in Oyo State towards the skills, abilities, and tasks performed by librarians. This indicates that students recognize and appreciate the expertise of librarians, emphasizing their crucial role in delivering high-quality

library services. These findings suggest that the work design of librarians is aligned with the needs and expectations of students, which can contribute to a positive user experience.

Research question three was formulated to examine the level of ICT Use of librarians in private universities in Oyo State, Nigeria. The study reveals the level of ICT adoption by librarians in private universities in Oyo State, Nigeria, addressing research question three. The moderate level of ICT adoption aligns with the findings of previous studies by Mommoh and Emmanuel (2019); and Aiyebelehin, Ikenwe & Okpetu (2017) which emphasize the strong influence of ICT on library service delivery. The study suggests that by expanding the integration of ICT tools and exploring more innovative uses of technology, librarians can enhance students' access to information resources, improve communication channels, and promote library services more effectively. This finding corresponds with the research conducted by Okuonghae, Ijeh, and Erhabor (2018) in University Libraries in Ekiti and Ondo State, which highlights the need for improvement in the use of ICT in delivering certain library services. Chukwueke and Onuoha (2019) also confirm that some academic libraries have yet to fully adopt ICT in their services. The study's findings align with the assertion made by Wawu (2019) that libraries can now provide services around the clock due to the redefinition and revamping of operations and services through ICT. Additionally, Okike (2020) highlights existing digital strategies for delivering information to the public and anticipates the development of new opportunities in this regard. The implications of this discussion indicate the need for librarians in private universities in Oyo State to enhance their adoption of ICT tools, explore innovative uses of technology, and embrace emerging technologies. This will result in improved access to information resources, enhanced communication channels, and the provision of high-quality services to meet the evolving needs of library users in the digital age.

## **Conclusion**

The study affirmed that librarians in private universities in Oyo State, Nigeria, provided quality service, particularly in the tangibles and reliability aspects. It found that librarians had suitable work designs, including diverse skills, identifiable tasks, and active engagement with user feedback. While ICT use was moderate, the study indicated that work design could predict the quality-of-service delivery by librarians.

## **Recommendation**

- Develop effective strategies to enhance library staff motivation.
- Encourage regular patron feedback to improve library services.
- Provide adequate ICT tools to support librarians in delivering quality services.
- Ensure that work design standards are appropriate and align with best practices for enhancing service delivery in private university libraries in Oyo State.

## References

- Abid, A., Sarwar, A., Imran, K., Jabbar, A. & Hannan, A. (2013). Effect of job design on employee satisfaction: A Study of fertilizer companies listed in Lahore stock exchange. *International Knowledge Sharing Platform*, 5(19), 1-14.
- Abu, H. & Okafor, C.J. (2023). Influence of information and communication technology (ICT) use on staff job performance in university libraries in Benue State, Nigeria. *Library Philosophy and Practice (E-Journal)*. 7264. <https://Digitalcommons.Unl.Edu/Libphilprac/7264>
- Adebayo, O., Ahmed, Y. & Adeniran, T. (2018). The role of ICT in provision of library services: A panacea for sustainable development in Nigeria, *Library Philosophy and Practice (e-journal)*. 1951, 1-13.
- Adegoke, K.A., Akor, P.U. & Abubakar, M.B. (2023). Determinants of users' satisfaction with electronic resources and services provision in federal university libraries in Nigeria. *International Journal of Research in Education Humanities and Commerce*, 4(2), 68-77.
- Agbonifoh, C.I. & Osifo, S.J. (2017). Factors responsible for poor service delivery in Nigerian public organizations. *Nigeria Journal of Business Administration*, 15(1&2), 7-21.
- Agoh, A.J., Annune, A.E. & Idachaba, J.A. (2021). Assessing the extent of provision and constraints of utilization of library and information service delivery on scholarly communication output in agricultural research institutes in North-Central Nigeria. *South Asian Res J Human Soc Sci*, 3(5), 280-294.
- Agbo, I.S. (2015). Factors influencing the use of information and communication technology (ICT) in teaching and learning computer studies in Ohaukwu Local Government Area of Ebonyi State-Nigeria. *Journal of Education and Practice*, 6, 71-86.
- Ahmad, A. (2018). job design dimensions and its impact on knowledge sharing among employees in Jordanians hospitals in Irbid District –Jordan. *British Journal of Management*, 29(3), 1-12.
- Aiyebelehin, J.A., Ikenwe, I.J. & Okpetu, C. (2017). Service delivery by librarians in university libraries in Edo State. *Journal of Applied Information Science and Technology*, 10(2), 42-48.
- Akanmidu, O.J., Ikonne, C.N. & Madukoma, E. (2021). Influence of leadership style on service delivery of librarians in the national library of Nigeria. *International Journal of Academic Research in Education and Review*, 9(3), 139-150.
- Amaechi, N.M., Enweani, U.V. & Eke, C.C. (2018). Challenges to library and information services (LIS) delivery in the 21st century: The situation in three academic libraries in Imo State, Nigeria. *Library Philosophy and Practice (e-journal)*. 2075. <http://digitalcommons.unl.edu/libphilprac/2075>
- Ameyaw, S., Kwakye, J.O. & Asante, E. (2016). Electronic resources usage in private universities: Evidence from Valley View University, Ghana. *ADRRRI Journal of Arts and Social Sciences*, 14(4), 1-15. <https://doi.org/10.55058/adrrrijass.v14i4.266>
- Arinda, D. (2022). Job design, job satisfaction and organizational commitment among employees in Kampala Capital City Authority (KCCA). *A Dissertation Submitted to the School of Psychology in Partial Fulfilment for the Award of a Bachelor of Industrial and Organizational Psychology of Makerere University*.
- Armstrong, K. (2018). Job analysis and job design: Human resource and personal management, India: *Tata McGraw-Hill Publishing Company Limited*, 4th Edition, 93-125.
- Badmus, B.N. & Ogunlana, E.K. (2020). Influence of physical work environment on service delivery by library personnel in Federal Universities in South West Nigeria. *Library Philosophy and Practice (E-Journal)*. 4617. <https://Digitalcommons.Unl.Edu/Libphilprac/4617>

- Baharuddin, K. & Ariff, N. (2015). Reliability, responsiveness and assurance of library staff in providing library services in Malaysia. *International Conference on Information Science (ICIS): Synergizing Information in Transformative Societies at Faculty of Information Management*, 1-4.
- Basil, E.I., Josiah, O.R. & Eghwubare, A. (2016). Mobile phones for library services: Prospects for Delta State University, Abraka, *Library Philosophy and Practice*, 21(9), 20-26.
- Bhoi, N.K. (2017). Use of Information Communication Technology (ICT) and Library Operation: An Overview. *Semantic Scholar*.
- Boachie, F.K. (2018). ICT infrastructure required for sustainable library services in the 21st century issues and challenges from a developing country's perspective. 5th international symposium on emerging trends and technologies in libraries and information services, ETTLIS. 12–15.
- Chukwueke, C. & Onuoha, J. (2019). Emergent trends in library services delivery: The application of information and communication technologies in academic libraries. *Library Philosophy and Practice (e-journal)*.
- Ebikebina, T. & Nwimana, V. (2020). Job design and employee performance of manufacturing companies in Rivers State, Nigeria. *International Journal of Business and Economics.*, 8(1), 52 - 66.
- Edmond, T. & Anthony, S. (2022). Work environment, motivation and service delivery of librarians in Ambrose Alli University (AAU) Library, Ekpoma, Edo State. *Global Scientific Journal*, 10(6), 2069-2081.
- Essien, F.K., Lu, Z.P., Abredu, P. & Zotoo, I.K. (2022). Effect of ICT use on library service delivery: A comparative approach from two Universities. *Open Access Library Journal*, 9, 1-6.
- Gakibayo, A., Ikoja–Odongo, J.R. & Okello-Obura, C. (2018). Electronic information resources utilization by students in Mbarara University Library. *Library Philosophy and Practice*.
- Grant, L.W. & Stronge, J.H. (2008). Effective teachers for at-risk or highly mobile students: what are the dispositions and behaviors of award-winning teachers? *Journal of Education for Students Placed at Risk (JESPAR)*, 16(4), 275-291.
- Hamba, M. (2019). Employee attributes and health service delivery in the selected hospital in Kampala. *Journal of International Consumer Marketing*, 35(2)
- Humphrey, S.E. Nahrgang, J.D. & Morgeson, F.P. (2007). Integrating motivational, social, and contextual work design features: a meta-analytic summary and theoretical extension of the work design literature. *The Journal of Applied Psychology*, 92(5), 1332–1356.
- Igbokwe-Ibeto, C.J. (2019). The effect of job analysis on service delivery in Federal Airports of Nigeria (FAAN) 2005-2014. *International Journal of Human Resource Studies*, 9(2), 195-211
- Justina, E., Ewulum, O., Eze, E., Okpala, H. & Ebobo, O. (2020). Utilization of modern technologies for service delivery in special libraries in Southeast Nigeria. *Information Impact: Journal of Information and Knowledge Management*, 10(2), 139-152.
- Kotterman (2010). The influence of social responsibility image relative to product and service quality on brand loyalty. *Hospitality Review*, 29, 20-51.
- Kukoyi, I.A. & Iwuagwu, C. (2015). Service delivery and customer satisfaction in the hospitality industry: A study of the Divine Fountain Hotels Limited, Lagos, Nigeria. *Journal of Hospitality and Management Tourism*, 6 (1), 1-7.
- Mommoh, R.L. & Emmanuel, V. (2019). Library staff utilization of information and communication technology (ICT) for service delivery in special libraries in North Central Nigeria. *Journal of Information and Knowledge Management*, 10(1), 1-47.
- Munyiri, J.W. (2018). Job design and employee performance of insurance companies in Nyeri

- County, Kenya. *A Research Project Submitted in Partial Fulfillment of the Requirement for the Award of Degree in Masters of Business Administration (Human Resource Management Option) of Kenyatta University.*
- Nwamara, G.M. (2002). Networking the Nigerian university system: The UNN experience. Seminar paper on trends in the development of ICT in the Nigerian university system. *Seminar organized by the University of Jos.*
- Okike, B.I. (2020). Information dissemination in an era of a pandemic (COVID-19): librarian's role. *Library Hi Tech News*, 1-3.
- Okuonghae, O., Ijeh, C.I. & Erhabor, J.O. (2018). User delinquency as a factor affecting effective service delivery in university libraries in Ekiti and Ondo State, Nigeria. *Library Philosophy and Practice*.
- Oldham, G.R. & Hackman, J.R. (2010). Not what it was and not what it will be: The future of job design research. *Journal of Organizational Behavior*, 31(2–3), 463–479.
- Opara, B. (2017). Job design and service delivery in Nigeria manufacturing firms. *Nigerian Academy of Management Journal*, 12(1).
- Opara, M.F. & Perpetua, O.C. (2021). Application of ICT in service delivery as predictor of staff job effectiveness in Nigeria Universities. *International Journal of Education and Social Science Research*, 4(2), 29–38.
- Parasuraman, A., Zeithaml, V.A. & Berry, L.L. (1988). SERVQUAL: A Multiple-Item Scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64, 12-40.
- Parvin, M.M. & Kabir, M.N. (2011). Factors affecting employee job satisfaction of pharmaceutical sector. *Australian Journal of Business and Management Research*, 1, 113-123.
- Popoola, S. & Haliso, Y. (2019). Management perceptions of Internet-based banking services in Nigerian commercial banks. *African Research & Documentation*, 112, 37-52. <https://doi.org/10.1017/s0305862x00020963>
- Soyemi, O.D. & Oloyede, O.E. (2022). Organisational justice as correlate of turnover intentions among academic librarians in South -West Nigeria. *Academy of Strategic Management Journal*, 21(S5), 1-12.
- Sureshchandar, G.S, Rajendran, C. & Anantharaman, R.N. (2002). The relationship between service quality and customer satisfaction—a factor specific approach. *Journal of Services Marketing*. 16, 363-379.
- Tahleho, T.E. (2016). Improving service delivery at the National University of Lesotho Library through knowledge sharing. *University of South Africa, Pretoria.*
- Teryima, S.J. & Abubakar, M.Y. (2018). Impact of job design attributes on performance attainment in business organizations: A survey of deposit money banks in Nigeria. *The Business and Management Review*, 9(3).
- Tsuma, J. (2015). Effect of job design on employee satisfaction levels in private universities in Kenya; A CASE. *Strategic Journals*, 2(2).
- Uganneya, S., Ape, R. & Ugbagir, N. (2012). Information services provision and user satisfaction in agricultural research libraries in Nigeria. *International Journal of Library and Information Science*, 3(6), 88–93.
- Uruthirapathy, A. & Grant, G. (2015). The influence of job characteristics on IT and non-IT job professional's turnover intentions. *Journal of Management Development*. 34
- Uwanyiligira, J. (2020). strategic management practices and service delivery in public institutions in Rwanda. *International Journal of Scientific and Research Publications (IJSRP)*, 11, 119-143.
- Vera, N.O. & Ufuoma, E. (2021). Utilization of information and communication technology-

based information resources in library user education programmes: A study of colleges of education in South-South, Nigeria. *Information Impact: Journal of Information and Knowledge Management*, 12(1), 76-87.

Wawu, I.A. (2019). Impact on ICT utilization on library services in academic libraries. *Library Philosophy and Practice (e-journal)*. 3682.