



E-LEARNING PLATFORMS AND SERVICE DELIVERY IN PUBLIC UNIVERSITY LIBRARIES IN SOUTH-EAST, NIGERIA

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Abstract

This study examined the impact of e-learning platforms on service delivery in university libraries in the South-East Nigeria. The research was guided by three objectives and three research questions. Descriptive survey research design was adopted. The population of the study was 655 librarians drawn from the 10 public university libraries, five (5) Federal universities and five (5) state universities in the south-East zone of Nigeria. A combination of convenient sampling technique was used to select the university libraries and proportionate sampling technique was used to determine the sample size of 313 respondents. Questionnaire was used for data collection. Mean value was used for data analyses. Findings show that, there were significant utilisation of e-learning platforms as Google meet, Virtual Instructor led Training and Google-classroom enhanced staff services delivery in all the public university libraries in the South-East Nigeria investigated. The research concludes that, since-learning platforms have become imperative as well as enhance quality of services delivery, the use of such platforms be highly sustained as part of the university facilities. This study recommends amongst others, Public university library management should strengthen the adoption and utilization of Google Meet by providing reliable internet connectivity, adequate digital infrastructure, and continuous training for librarians.

Keywords: E-learning, E-learning Platforms, University Library and Services delivery



Introduction

E-learning is an emerging concept that has become a major driver of transformation in higher education institutions, including university libraries. Although there is no universally accepted definition of the concept, scholars generally agree that it involves the use of information and communication technology (ICT) to facilitate teaching, learning, training, and professional development. The advent of e-learning has significantly changed the way people learn, work, and deliver services, replacing the traditional face-to-face mode of instruction with flexible, technology-enabled learning environments.

In the past, professional training for library staff was largely conducted through conventional classroom instruction, where participants interacted physically with instructors. Today, advancements in ICT have made it possible for librarians to participate in training programmes remotely through various e-learning platforms, thereby enhancing their knowledge, skills, and competencies without the constraints of time and location. This flexibility has created opportunities for continuous professional development and improved service delivery in university libraries.

E-learning can therefore be defined as the process of acquiring knowledge, skills, and competencies through electronic technologies and internet-based platforms such as Google Meet, YouTube, Google Classroom, Zoom, and other virtual learning environments. These platforms enable librarians to access training and learning resources conveniently, regardless of their geographical location, while promoting lifelong learning and professional growth.

The adoption of e-learning has had a significant influence on library service delivery. It equips librarians with current knowledge, innovative service techniques, and digital competencies required to meet the changing information needs of users. Consequently, many university libraries now integrate ICT-enabled tools into their operations to provide timely, efficient, and user-centred services. According to Agoh and Omekwu (2021), service delivery refers to the process of providing services and information resources to users in a manner that satisfies their needs. It encompasses all activities undertaken by libraries to ensure effective access to information resources and quality user support. Similarly, Popoola and Haliso (2021) observed that library and information service delivery is central to the mission of libraries and that the emergence of e-



learning platforms has continued to reshape the methods, efficiency, and quality of service delivery in contemporary academic libraries.

Statement of the Problem

The rapid advancement of information and communication technology (ICT) has transformed learning and professional development in higher education institutions, making e-learning an essential tool for enhancing service delivery. University libraries increasingly rely on e-learning platforms to improve librarians' knowledge, skills, and efficiency in meeting the evolving information needs of users. Despite this growing adoption, empirical evidence on the impact of e-learning platforms on library service delivery in university libraries remains limited. Observations suggest that many librarians primarily use e-learning platforms for communication and meetings rather than for improving library service delivery. Therefore, this study was undertaken to examine the impact of selected e-learning platforms, including Google Meet, Virtual Instructor and Google Classroom, on the delivery of library services in public university libraries in South-East Nigeria.

Objectives of the study

The general objective of the study is to investigate the impact of e-learning indices on services delivery in public universities in South-East Nigeria. The specific objectives are to:

1. find out the impact of utilization of Google meet on service delivery in the public university libraries.
2. ascertain the impact of utilization of virtual instructor led training on service delivery in the public university libraries.
3. investigate the utilisation of Google-Classroom on service delivery in the public university libraries.

Research Questions:

To actualize the objectives of the study, the following research questions are constructed for the study. They are:

4. what is the impact of utilization of Google meet on service delivery in the public university libraries?
5. what is the impact of utilization of Virtual- Instructor- led training on service delivery in the public university libraries?



6. what is the impact of utilisation of Google classroom on service delivery in the public university libraries?

Literature Review

Digital Class (2021) defines e-learning as the delivery of education, training, and professional development through electronic media such as the internet, audio, video, and web-based technologies. Similarly, True Education (2020) describes e-learning as a form of learning conducted through digital technologies, typically over the internet, and accessible via computers, laptops, tablets, and smartphones. This flexibility enables learners to access educational content anytime and anywhere, making e-learning a convenient and effective mode of learning. E-learning resources include software applications, digital courses, learning management systems, and interactive online platforms that facilitate knowledge acquisition and skill development. E-learning encompasses all forms of teaching, learning, staff training, and professional development conducted through electronic technologies. It utilizes platforms such as Google Meet, Google Classroom, Zoom, webinars, Massive Open Online Courses (MOOCs), YouTube, and other internet-based applications to provide timely, current, and cost-effective learning opportunities. Ellis and Kuzaria (2014) describe e-learning as a technology-based approach designed to provide effective learning solutions, while Brooks (2019) views it as any form of learning facilitated primarily through computers and the internet, although it may also involve other digital media such as streaming audio, video, CD-ROMs, and DVDs. Likewise, Talent (2018) explains that e-learning creates a digital learning environment where learners can access online courses, instructional materials, lecture notes, and interactive discussion forums. In this study, e-learning refers to the acquisition of knowledge, professional competencies, and innovative service delivery skills through internet-enabled platforms such as Google Meet, YouTube, Google Classroom, Zoom, and related technologies.

E-learning platforms vary in their features and functionalities but share the common objective of enhancing knowledge and professional competence. According to Ricart (2024), widely used e-learning platforms include YouTube, Virtual Instructor, Google Classroom, Zoom, and similar virtual learning environments. These platforms provide librarians with opportunities to acquire contemporary knowledge, improve digital competencies, and develop innovative approaches to



library service delivery. As academic libraries increasingly adopt technology-driven services, librarians require continuous training to remain relevant in a rapidly changing information environment. Evans (2025) and YouTube Impact (2025) observed that platforms such as Google Classroom and YouTube have become valuable channels for training information professionals on current techniques for locating, organizing, packaging, and disseminating information effectively.

A university library is an academic library established to support the teaching, learning, research, and community service functions of a university. It provides access to information resources required by students, lecturers, researchers, administrative staff, and, in many cases, members of the surrounding community. According to Attama and Okochie (2008), university libraries are repositories of scholarly information that support academic programmes from undergraduate to doctoral levels. Similarly, Okey (2020) explains that university libraries are established within institutions of higher learning to provide information resources and services that facilitate teaching, research, innovation, and lifelong learning. In addition to traditional services such as reference and circulation, contemporary university libraries increasingly offer technology-enabled services through digital platforms to meet the evolving needs of users. The emergence of information and communication technologies has transformed library operations and service delivery. Ogar and Dushu (2018) noted that libraries have experienced a paradigm shift from manual operations to technology-driven services as a result of digital innovation. This transformation has expanded the scope of library services beyond physical interactions to include virtual reference services, online user education, digital resource access, and remote research support.

Service delivery refers to the process of providing services efficiently and effectively to meet users' needs and expectations. Thijs (2020) describes service delivery as every interaction through which organizations provide services or information to clients in a reliable, responsive, and user-friendly manner. In the context of academic libraries, Uwandu and Osuji (2022) assert that service delivery is the core function of the library, involving the provision of information resources and services that support teaching, learning, and research. Similarly, Ago and Omekwu (2021) define library service delivery as the collection of activities and processes through which libraries make information resources accessible to users with the objective of enhancing their academic, research, and professional productivity.



Effective service delivery is fundamental to the existence and relevance of libraries. Information resources have little value if users cannot easily discover, access, and utilize them. Consequently, librarians serve as the critical link between information resources and users by providing guidance, instruction, and support throughout the information-seeking process. The integration of e-learning platforms into library operations has strengthened librarians' professional competencies and improved the quality, accessibility, efficiency, and responsiveness of library service delivery. As a result, e-learning has become an indispensable tool for enhancing library services in contemporary university libraries.

Theoretical Framework

This study is anchored on two theories: Service Delivery Theory by Casey Reader (2017) and the Theory of Learning and E-learning by Milan Klement and Jiří Dostál.

Service Delivery Theory

Service Delivery Theory was propounded by Casey Reader in 2017. The theory emphasizes the processes and systems through which organizations deliver quality services to their clients. It recognizes that people constitute the most valuable resource in service organizations because their knowledge, skills, and competencies determine the quality and effectiveness of service delivery. Unlike tangible products, services are intangible, heterogeneous, and produced and consumed simultaneously, making their quality difficult to measure objectively. Consequently, the theory advocates the development of efficient systems, adequate staff capacity, and continuous improvement in service processes to ensure effective and customer-oriented service delivery.

The theory further posits that the effectiveness of any service organization depends largely on the competence of its workforce and the mechanisms put in place to support service provision. It therefore underscores the need for continuous staff training, innovation, and the adoption of appropriate technologies to enhance service quality and meet users' expectations.

This theory is relevant to the present study because it provides a framework for understanding how e-learning platforms can enhance librarians' competencies and improve the delivery of library services. Through virtual learning platforms, librarians can acquire new knowledge, develop



modern service delivery skills, and improve their interactions with users, thereby ensuring efficient, effective, and quality library services.

Theory of Learning and E-learning

The Theory of Learning and E-learning, advanced by Milan Klement and Jiří Dostál, is founded on the principles of open education, learner autonomy, and self-directed learning. The theory emphasizes that technology-supported learning environments provide learners with greater flexibility, independence, and opportunities to acquire knowledge and skills at their own pace. It represents a shift from traditional teacher-centred instruction to learner-centred education, where individuals actively participate in constructing knowledge through digital learning environments.

The theory highlights several fundamental elements that support effective e-learning. These include the psychological perspective, which explains the cognitive processes involved in learning; the behavioural perspective, which emphasizes reinforcement and active learner participation; the cognitive perspective, which focuses on information processing, understanding, and knowledge acquisition; and the constructivist perspective, which views learning as an active process in which learners construct knowledge through experience, interaction, and reflection. These elements collectively explain how e-learning platforms facilitate knowledge acquisition, skill development, and professional competence.

The theory is highly relevant to this study because it provides a theoretical basis for understanding how virtual learning platforms such as Google Meet, Virtual Instructor, and Google Classroom facilitate continuous professional development among librarians. Through these platforms, librarians acquire new knowledge, develop digital competencies, improve their service delivery skills, and adapt to contemporary methods of providing library services. Consequently, the theory explains how e-learning contributes to enhanced efficiency, effectiveness, and quality in library service delivery within public university libraries.

Methodology

A descriptive survey research design was adopted for this study. A survey research design involves the systematic and comprehensive collection of data on people's opinions, attitudes, beliefs, feelings, and behaviours. This design was considered appropriate because it enabled the researcher to obtain standardized information from a representative sample of librarians, thereby



facilitating the generalization of the findings to the entire study population. The population of the study comprised 655 librarians drawn from the 10 public universities in the South-East geopolitical zone of Nigeria, consisting of five federal universities and five state universities. The federal universities included Alex Ekwueme Federal University, Ndufu-Alike (AE-FUNAI) (86), Federal University of Technology, Owerri (FUTO) (105), Michael Okpara University of Agriculture, Umudike (MOUUAU) (40), Nnamdi Azikiwe University, Awka (UNIZIK) (88), and the University of Nigeria, Nsukka (UNN) (118), giving a total of 437 librarians. The state universities comprised Abia State University, Uturu (ABSU) (22), Chukwuemeka Odumegwu Ojukwu University (COOU) (56), Ebonyi State University (EBSU) (55), Enugu State University of Science and Technology (ESUT) (65), and Imo State University, Owerri (IMSU) (20), with a combined total of 218 librarians. A sample size of 313 librarians was selected from the population using the proportionate sampling technique. This technique ensured that each university was represented in the sample in proportion to its population size, thereby enhancing the representativeness of the sample and minimizing sampling bias. Data collected for the study were analyzed using mean scores to answer the research questions. A criterion mean of 2.50 was adopted for decision-making; any item with a mean score of 2.50 or above was regarded as agreed, while items with mean scores below 2.50 were regarded as Disagreed

Findings

Table 1: Mean Value Analysis of the impact of utilisation of Google meet on delivery of library services.

Items	Mean	Decision
It makes it easy for me to access recorded resources and speedy delivery of services to users.	3.41	Agreed
It grants me high level of interaction and effective services to users.	3.38	Agreed
Research services offered by librarians have been significantly impactful via google-meet	3.22	Agreed
It makes for improved productivity and enhanced services.	3.27	Agreed
It helps in effective distribution of library services.	3.21	Agreed
Makes it hard to convey online services delivery.	1.92	Disagreed
Grand Mean	3.06	Agreed



The findings indicate that Google Meet is an effective platform for enhancing library service delivery. The respondents agreed that Google Meet makes it easier to access recorded resources and facilitates speedy delivery of services to users, as evidenced by the highest mean score of 3.41. This suggests that the platform supports efficient dissemination of information and allows users to revisit recorded sessions when necessary. Similarly, the respondents agreed that Google Meet provides a high level of interaction and enables effective service delivery to users (Mean = 3.38). This implies that the platform enhances communication and engagement between librarians and library users, thereby improving the quality of virtual library services. The respondents also agreed that research services offered by librarians have been significantly enhanced through the use of Google Meet (Mean = 3.22). This finding indicates that the platform has become an important medium for providing research consultations, information literacy instruction, and other research support services remotely. Furthermore, the respondents agreed that Google Meet contributes to improved productivity and enhanced library services (Mean = 3.27). This suggests that the platform enables librarians to perform their duties more efficiently while maintaining quality service delivery in a virtual environment. The respondents further agreed that Google Meet facilitates the effective distribution of library services (Mean = 3.21), indicating that the platform provides a reliable channel for reaching users irrespective of their physical location. However, the respondents disagreed with the statement that Google Meet makes it difficult to convey online services (Mean = 1.92). This disagreement implies that librarians do not perceive Google Meet as a barrier to online service delivery. Rather, they consider it a user-friendly and effective tool for delivering library services virtually.

Table 2: Mean Value Analysis of the impact of Utilisation of Virtual Instructor led training for Delivery of Library Services

Item Statement	Mean	Decision
Virtual instructor led training gives me better ways to effective services delivery.	3.26	Agreed
Virtual instructor officer new methods of services delivery	3.07	Agreed
With virtual instructor, I do not deliver services faster and more easily	1.75	Disagreed
Virtual instructor helps me deliver up to date services	3.23	Agreed
virtual lead instructor teaches me effective modern approaches in services delivery	3.45	Agreed
I extend quality services via virtual instructor.	3.27	Agreed



Grand Mean	3.01	Agreed
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Based on the grand mean of 3.01, the respondents agreed that the utilization of Virtual Instructor has a positive impact on the delivery of library services in the public university libraries investigated. Specifically, the respondents agreed that Virtual Instructor assists librarians in providing users with adequate guidance on how to locate needed library resources and services (Mean = 3.26), enhances the accessibility and timeliness of library service delivery (Mean = 3.07), and facilitates collaboration among colleagues to provide effective services to users (Mean = 3.14). Furthermore, the respondents agreed that Virtual Instructor provides better approaches to library service delivery (Mean = 3.23), exposes librarians to new methods of delivering services (Mean = 3.45), and equips them with modern service delivery techniques (Mean = 3.24). However, the respondents disagreed with the statement that Virtual Instructor helps librarians deliver services faster and more easily (Mean = 1.75), as the mean score fell below the criterion mean of 2.50. This finding suggests that although Virtual Instructor enhances the quality, effectiveness, and modernization of library services, respondents do not perceive it as significantly improving the speed and ease of service delivery.

Table 3: Mean Value Analysis of Influence of Google Classroom on Staff Delivery of Library Services

-Item Statement	Mean	Decision
It upgrades inter-connectivity in services delivery	3.32	Agree
Google classroom affect my service delivery positively when used	3.40	Agree
It exposes me to round the world services delivery when used	3.06	Agree
I am able to deliver prompt services without travelling	3.30	Agree
it hardly promotes online products and services when used	1.62	disagree
helps me to render effective services to users anywhere	3.36	Agree
Grand mean	3.01	Agree



The findings reveal that Google Classroom has a positive impact on the delivery of library services in the public university libraries studied, as indicated by the positive grand mean of 3.32. The respondents agreed that Google Classroom provides them with useful ideas on how to deliver library services to users (Mean = 3.32), exposes them to global best practices in service delivery (Mean = 3.40), equips them with appropriate methods for handling and disseminating online information to users (Mean = 3.06), and provides up-to-date tutorials on effective library service delivery (Mean = 3.30). They also agreed that Google Classroom enables prompt service delivery without the need for physical travel (Mean = 3.36). However, the respondents disagreed with the statement that Google Classroom promotes online library products and services (Mean = 1.62), as the mean score fell below the criterion mean of 2.50. This finding suggests that while Google Classroom is perceived as an effective platform for enhancing librarians' knowledge, skills, and efficiency in service delivery, it is not considered a significant tool for promoting online library products and services.

Conclusion

Based on the findings of the study, it can be concluded that virtual learning platforms have significantly enhanced the delivery of library services in public university libraries. The study established that Google Meet has positively impacted library service delivery by improving librarians' interaction with users, facilitating access to recorded resources, enhancing research support services, increasing productivity, and promoting the effective distribution of library services. Similarly, Virtual Instructor has contributed to improved library service delivery by equipping librarians with modern service delivery techniques, enhancing collaboration among colleagues, and providing effective guidance for users in accessing library resources, although it was not perceived as improving the speed and ease of service delivery. Furthermore, Google Classroom was found to have a positive impact by exposing librarians to global best practices, providing up-to-date training on service delivery, improving the handling of online information, and enabling prompt service delivery without the need for physical travel. However, respondents did not consider it an effective platform for promoting online library products and services.



Recommendations

In line with the findings of the study, these recommendations are made:

1. Public university library management should strengthen the adoption and utilization of Google Meet by providing reliable internet connectivity, adequate digital infrastructure, and continuous training for librarians. This will further enhance virtual interaction with users, improve access to recorded resources, facilitate research support services, and promote efficient delivery of library services.
2. University authorities and library administrators should organize regular capacity-building programmes on the use of Virtual Instructor to enable librarians maximize its potential for collaborative service delivery, user guidance, and the adoption of modern library service techniques. In addition, efforts should be made to improve the platform's efficiency so that it supports faster and more seamless library service delivery.
3. Library management should integrate Google Classroom more extensively into library operations by developing structured online instructional content, user education programmes, and digital information literacy courses. Libraries should also leverage the platform to actively promote their online resources and services, thereby increasing users' awareness and utilization of available electronic library products and services.

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