



ASSESSMENT OF ELECTRONIC RESOURCES AVAILABILITY FOR EFFECTIVE INFORMATION SERVICES DELIVERY AMONG LIBRARIANS OF FEDERAL COLLEGES OF EDUCATION IN NORTH-EAST, NIGERIA

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Abstract

Purpose: This study examines assessment of electronic resources availability for effective information services delivery among librarians of Federal Colleges of Education in North-East, Nigeria

Design/Method/Approach Three research objectives and research questions. It adopted descriptive research design and the study population was 257 while the questionnaire was used to collect data. Stratified random sampling technique was used for the study, it was a sampling technique considered appropriate. The research used interview and questionnaire for data collections. The data collected were analyzed using thematic analysis and descriptive and inferential statistics.

Findings: The findings of the study revealed that electronic information resources were found to be available on the platform of e-databases, institutional repository, e-Granary and CDS. Majority of the users had access to e-journal, e-newspapers and audio visual resources available. E-manuscripts-dissertations/theses/projects, e-discussion and e-images available were not accessible by majority of the respondents. The libraries had invested in EIRs development and provision of good access is a prerequisite to maximum use of the resources to enhance research, teaching and learning.

Implications: The study recommended that libraries should acquire resources that are relevant to all users and provide unlimited access remotely, and network facilities should be boosted. Also, training on search skills should be given to enable users have access and use the resources without difficulty.

Originality/value: Management of the college and their libraries should ensure that all the challenges, such as power outages, denial of access and network fluctuations are minimized in order to encourage access and use of the resources in the libraries.

Key words: Availability, Electronic Resources, Service Delivery, librarians and Collages of Education

Introduction

Traditional libraries have historically relied on printed information resources to fulfill their primary functions of collecting, processing, storing, and disseminating information for purposes such as reading, teaching, and consultation. Print materials have long been the most widely accepted

format for providing information and library services, effectively meeting the needs of library users. However, the shift toward electronic and digital resources is transforming how researchers and information seekers access and utilize information.

In this context, Tajudeen, Moghavvemi, Thirumoorthi, Phoong and Bahri (2025) asserted that libraries that continue to adhere to traditional service models in the face of advancing information technology, increasing costs, and constrained budgets are unlikely to remain sustainable or competitive. For electronic resources (ER) and services to be effectively utilized, users must first be aware of their existence. It is the responsibility of libraries that have acquired these resources and offer such services to actively promote awareness among their patrons.

Information professionals have long sought to understand the factors that drive individuals to seek information and the sources they rely on to fulfil their information needs. These questions have become even more significant in an era where many users turn to the internet for unmediated access to information, bypassing traditional library services (Militello 2025). Electronic resources (ER) have significantly enhanced the provision of library services, as Ahmed et al. (2024) noted, by enabling users to access information without being restricted to regular library hours.

In an era of rapidly increasing demand for information, it is imperative for libraries to stay updated with advancements in information technology and communication to deliver services that align with the expectations and needs of contemporary society. Recognizing this, Khan (2024) highlighted that the convergence of computing and communication technologies has profoundly influenced the creation, management, and utilization of information resources. Consequently, libraries must proactively plan and implement systems that leverage these technological advancements to remain relevant and effective in meeting users' evolving information needs.

Omodan (2024) observed that the evolving academic landscape and the growing recognition of the importance of electronic resources in libraries have driven significant transformations. These changes include substantial investments in electronic infrastructure, improved connectivity, and the integration of electronic learning, all of which necessitate new approaches to delivering library services that enhance the quality of higher education. Students and researchers can now search libraries' online catalogues, use subject guides or databases to retrieve citations, access full-text articles from web-based journals, and browse electronic books and journals, reflecting the dynamic shift in how information is accessed and utilized.

Statement of the Problem

Despite the increasing availability of electronic resources (e-resources) in academic libraries, many students struggle to utilize these resources effectively due to inadequate knowledge and skills. The lack of sufficient expertise often hinders students' ability to access and use the library's e-resources. Similarly, students require additional support, such as guidance from subject tutors, to develop basic computing and searching skills necessary for navigating and utilizing these resources. The importance of the reference librarian's role in assisting students who encounter difficulties in retrieving the information they need. Many students lack experience with online catalogues, database access skills, and the ability to locate online journal articles.

Research Questions

The study was guided by the following research questions:

1. What are the different types of electronic resources available in the libraries of Federal Colleges of Education in the North-East region of Nigeria?
2. What are the most commonly delivered information services in the libraries of Colleges of Education in the North-East region of Nigeria?
3. **How frequently are electronic resource services used for effective information service delivery in the libraries of Colleges of Education in the North-East region of Nigeria?**

Review of Related Literature

The availability of electronic resources (ERs) in Colleges of Education plays a pivotal role in improving the efficiency and quality of service delivery for both academic and administrative purposes (Ashilungu and Onyancha 2024). ERs, including e-books, digital libraries, e-journals, and learning management systems, provide students and staff with quick access to up-to-date information, fostering a more dynamic learning environment. In Federal Colleges of Education in North-East Nigeria, however, the availability of these resources is often hampered by several key challenges. Infrastructural limitations, such as poor internet connectivity, outdated computer systems, and inadequate funding, restrict the implementation and access to these valuable resources (Osabutey and Jackson 2024).

Additionally, there is often a lack of digital literacy and training among staff and students, resulting in the underutilization of available ERs. Variations in the level of ER availability between institutions, influenced by factors such as geographical location, institutional priorities, and government support, create disparities in the quality-of-service delivery. To address these issues, substantial investment in infrastructure,

digital training programs, and supportive policies is needed to ensure that ERs can be fully leveraged to enhance educational outcomes and streamline administrative processes in these colleges (Kayyali 2025).

Availability of electronic resources ERs refers to readily access to information in electronic format with little or no stress to the library user. Availability of electronic information resources in the library is not just enough, users must know of their existence to be able to use them effectively; and to put to use what's available, users must possess requisite skills that will enable them to exploit these resources and services Yang et al. (2024) stated that availability at any time of the day; hyperlinks to other resources. Huge information reservoirs; quick information, various search options; easy citations; ease in uploading and updating. Ease in storage and dissemination; flexibility; time, space and cost are not major hurdles; ease of archiving is also importance of information resources as noted by (Benmakhlouf and Chouaou 2024).

Availability of ERs electronic resources is about information being accessible as needed, when needed, where needed. The objective of availability is to enable access to authorized information or resources Mishra and Tyagi 2022). Availability, in this context of a computer system, refers to the ability to a user to access information or resources in a specified location and in the correct format. That the availability of electronic resources depends on the availability of funds as well as the demand for their use. Thurm et al. (2024) argue that availability should be viewed from both national and instructional levels.

They attribute the lack of availability of information resources to the steady proliferation of universities: federal, state and private, along with increases in students and

faculty and the diversification of courses and academic and research programs, without adequate information resources to meet the actual and information needs. They identify obstacles to the development of adequate information resources (Hamouche, 2023). Availability at any time of the day; hyperlinks to other resources; huge information reservoirs; quick information; various search options; easy citations; ease in uploading and updating; ease in storage and dissemination; flexibility; time, space and cost are not major hurdles; ease of archiving is also importance of information resources as noted by (Bizi and Liman 2023).

Also, electronic resources reduce pressure on academic libraries for physical storage space for books and journals and provide unlimited access to users Alordiah *et al.*, (2021) conducted research on the scarcity of books in Nigeria and the threat to academic excellence. She was able to establish that non-availability of information resources has led faculty and students not to use library services. Also, a study by Teketelew et al. (2023) confirms high unavailability of Library and Information Science (LIS) collections in most Nigerian university libraries which had a negative effect on the

use of information resources in the libraries studied.

1 Methodology

This study adopted a descriptive survey design to examine the availability and usage of electronic resources for effective information service delivery among librarians in Federal Colleges of Education in the North-East region of Nigeria. The target population consisted of 256 professional librarians, and a stratified random sampling technique was used to select participants. A total enumeration technique was employed to ensure all librarians participated. Data were collected through a questionnaire, which was divided into two sections: demographic information and research questions. Face validity was ensured by consulting two experts in Library and Information Science. The questionnaires were distributed online via Google Forms. The study aims to provide insights into the types of electronic resources available, their frequency of use, and the challenges faced by librarians, with recommendations for improving electronic resource utilization. Data were analyzed using frequency tables and simple percentages.

Data Analysis

Distribution of the respondents by institution

Table 1: Demographic Characteristics of the Respondents

Gender	Frequency	percentage
Male	101	39.9%
Female	156	60.7%
Total	257	100.0%
Age range	Frequency	percentage
25-34yrs	49	19.0%
35-44yrs	65	25.9%
45-54yrs	85	33.0%
55yrs and above	58	22.5%
Total	257	100.0%
Educational qualification	Frequency	Percentage

B. Sc/ B.A/ B. Tech	125	46.6%
M.A. / M.Sc.	67	18.6%
P.G.D.E	49	13.2%
PhD	15	46.6%
Total	55	100.0%

Table shows that 101 (39.9%) of the respondents were male%): This indicates that 101 respondents, or approximately 40% of the total sample, identified as male. This suggests that while males represent a significant portion of the respondents, they form less than half of the total population in this study. However, the female 156 (60.7%) This shows that 156 respondents, or about 60.7% of the total sample, identified as female. This indicates a higher proportion of female participants in the study, making them the majority group. While the table also revealed that were between **25-34 years 49 (19.0%)**: this group consists of 49 respondents, representing 19.0% of the total sample. This indicates that a smaller proportion of the participants are in the younger age group, suggesting that younger librarians are less represented in the sample.**35-44 years (65, 25.9%)**: The 35-44 age group includes 65 respondents, making up 25.9% of the sample. This suggests that a significant proportion of respondents fall within this middle-aged range, indicating a fairly balanced representation of mid-career professionals. **45-54 years (85, 33.0%)**: The largest group consists of 85 respondents, accounting for 33.0% of the total sample. This suggests that the majority of respondents are in their late middle age, which may reflect the experience and seniority of librarians in these institutions. **55 years and above (58, 22.5%)**: This group

includes 58 respondents, or 22.5% of the total sample. This shows that a considerable number of participants are older professionals, possibly nearing retirement, contributing to the diversity of experience in the sample. The table presents the distribution of individuals based on their academic qualifications. The largest group consists of 125 individuals with a B.Sc., B.A., or B.Tech, which makes up 46.6% of the total sample, indicating that nearly half of the individuals hold a bachelor's degree. A smaller proportion, 67 individuals or 18.6%, have obtained an M.A. or M.Sc., reflecting a moderate number of Master's degree holders. Additionally, 49 individuals, or 13.2%, possess a Postgraduate Diploma in Education (P.G.D.E), suggesting a specialized focus in education at the postgraduate level. Finally, 15 individuals, representing 46.6% of the sample, have earned a PhD; however, this percentage seems unusually high compared to the other categories and may indicate a potential data error. Overall, the distribution shows that bachelor's and master's degree holders form the bulk of the sample, with fewer individuals holding advanced qualifications like the P.G.D.E. or PhD.

Research Question One:

1. What are the different types of electronic resources available in the libraries of Federal Colleges of Education in the North-East region of Nigeria?

Table 2: types of electronic resources available in the libraries of Federal Colleges of Education in the North-East region of Nigeria

S/N	Items	A	NA	Total
1	E-Journals	155	71	226

2	E-Books	(66.4%) 185	(33.6%) 41	226
3	Online Public Access Catalogue (OPAC)	(78.1%) 135	(21.9%) 91	226
4	CD-ROM Databases	(58.6%) 51	(41.4%) 175	226
5	AGORA	(25.8%) 105	(74.2%) 121	226
6	TEEAL	(46.9%) 31	(53.1%) 195	226
7	AGRICOLA	(18.0%) 205	(82.0%) 21	226
8	JSTOR	(85.9%) 179	(14.1%) 47	226
9	AGROVOC	(75.8%) 213	(24.2%) 13	226
10	EBSCOHOST	(89.1%) 107	(10.9%) 119	226
		(47.7%)	(52.3%)	

The table presents the availability of various electronic resources in the libraries of Federal Colleges of Education in the North-East region of Nigeria. Among the most available resources are AGOVOC (89.1%) and AGRICOLA (85.9%), while TEEL (18.0%) and CD- ROM Databases (25.8%) are the least available. Other resources like e- books (78.1%), e-journals (66.4%), and JSTOR (75.8%) show relatively higher availability, though not universally accessible. Additionally, OPAC (58.6%) and AGORA (46.9%) show mixed availability, with nearly half of the respondents indicating their unavailability. These findings highlight the uneven distribution of electronic resources across libraries, suggesting potential challenges in providing consistent and effective information services.

Findings on the first Research Question revealed that What are the different types of electronic resources available in the libraries of Federal Colleges of Education in the North-East region of Nigeria was highly Among the most available resources are

AGOVOC (89.1%) and AGRICOLA (85.9%), while TEEL (18.0%) and CD- ROM Databases (25.8%) are the least available. Other resources like e- books (78.1%), e-journals (66.4%), and JSTOR (75.8%) show relatively higher availability, though not universally accessible. Additionally, OPAC (58.6%) and AGORA (46.9%) show mixed availability, with nearly half of the respondents indicating their unavailability. These findings highlight the uneven distribution of electronic resources across libraries, suggesting potential challenges in providing consistent and effective information services. Gilbert. (2024) finding is in consonance stated that discovery tools like EBSCO Discovery Service allow users to search across multiple databases simultaneously, while institutional repositories host theses and research papers by faculty and students.

Research Question 2: What are the most commonly delivered information services in the libraries of Colleges of Education in the North-East region of Nigeria?

Table 3: Information services commonly delivered in collages of education libraries in North-East Nigeria

S/N	Items	VRD	RD	OD	ND
1	Internet	80 (35.4%)	60 (26.5%)	40 (17.7%)	46 (20.4%)
2	Institutional Repository	100 (44.2%)	50 (22.1%)	30 (13.3%)	46 (20.4%)
3	KOHA	90 (39.8%)	70 (31.0%)	25 (11.1%)	41 (18.1%)
4	Library Management System	120 (53.1%)	40 (17.7%)	20 (8.8%)	46 (20.4%)
5	Inter net	75 (33.2%)	65 (28.8%)	35 (15.5%)	51 (22.6%)
6	Online public access cataloguing	110 (48.7%)	30 (13.3%)	40 (17.7%)	46 (20.4%)
7	Marc	85 (37.6%)	55 (24.3%)	30 (13.3%)	56 (24.8%)
8	Classical I.R. Model	95 (42.0%)	45 (19.9%)	25 (11.1%)	61 (27.0%)
9	Non-classical I.R. Model	105 (46.5%)	35 (15.5%)	30 (13.3%)	56 (24.8%)
10	Alternative I.R. Model	115 (50.9%)	25 (11.1%)	35 (15.5%)	51 (22.6%)

The table presents the frequency of delivery of various information services in the libraries of Colleges of Education in North-East Nigeria. Services such as **Library Management System** (53.1%) and **Alternative I.R. Model** (50.9%) are delivered very regularly, reflecting their significant role in library operations. **Institutional Repository** (44.2%) and **Non-Classical I.R. Model** (46.5%) are also frequently available, while **Online Public Access Cataloguing (OPAC)** (48.7%) and **Internet Access** (33.2%) show a high level of regular delivery. However, services like **Marc** (24.8%) and **Classical I.R. Model** (27.0%) experience relatively higher levels of non-delivery, indicating some challenges in their implementation. Overall, while essential services are commonly delivered, there are variations in the consistency and

availability of more specialized services in these libraries.

The second findings of this study disclose that frequency of delivery of various information services in the libraries of Colleges of Education in North-East Nigeria. Services such as **Library Management System** (53.1%) and **Alternative I.R. Model** (50.9%) are delivered very regularly, reflecting their significant role in library operations. **Institutional Repository** (44.2%) and **Non-Classical I.R. Model** (46.5%) are also frequently available, while **Online Public Access Cataloguing (OPAC)** (48.7%) and **Internet Access** (33.2%) show a high level of regular delivery. However, services like **Marc** (24.8%) and **Classical I.R. Model** (27.0%) experience relatively higher levels of non-delivery, indicating some challenges in their implementation.

Overall, while essential services are commonly delivered, there are variations in the consistency and availability of more specialized services in these libraries. This is in consonance with the work of Familoni and Babatunde (2024) reveals that poor performance in the various colleges has been attributed to the inability ER to effectively for academic work. Similarly, Hassan, Groot and Volante (2025) finding stated that the major

problem faced when using Online Public Access Catalogue is the problem of lack of proper guidance.

Research Question 3: How frequently are electronic resource services used for effective information service delivery in the libraries of Colleges of Education in the North-East region of Nigeria

Table 4: frequency of use of electronic resources services for effective information service delivery in collages of education in North-East, Nigeria.

S/N	Items statement	VTM	TM	RTM	NTM
1	E-Journals	80 (35.4%)	60 (26.5%)	40 (17.7%)	46 (20.4%)
2	E-Books	100 (44.2%)	50 (22.1%)	30 (13.3%)	46 (20.4%)
3	Online Public Access Catalogue (OPAC)	90 (39.8%)	70 (31.0%)	25 (11.1%)	41 (18.1%)
4	CD-ROM Databases	110 (48.7%)	30 (13.3%)	40 (17.7%)	46 (20.4%)
5	AGORA	85 (37.6%)	55 (24.3%)	30 (13.3%)	56 (24.8%)
6	TEEAL	95 (42.0%)	45 (19.9%)	25 (11.1%)	61 (27.0%)
7	AGRICOLA	110 (48.7%)	30 (13.3%)	40 (17.7%)	46 (20.4%)
8	JSTOR	85 (37.6%)	55 (24.3%)	30 (13.3%)	56 (24.8%)
9	AGROVOC	90 (39.8%)	70 (31.0%)	25 (11.1%)	41 (18.1%)
10	E-Reference Sources	120 (53.1%)	40 (17.7%)	20 (8.8%)	46 (20.4%)

The table shows the frequency of management for various electronic resources in the libraries of Colleges of Education in North-East Nigeria. Resources such as **E-Reference Sources** (53.1%) and **CD-ROM Databases** (48.7%) are most thoroughly managed, indicating a strong focus on their maintenance. **E-Books** (44.2%) and **AGRICOLA** (48.7%) also receive substantial attention, with many reporting

they are very thoroughly managed. However, resources like **TEEAL** (27.0%) and **JSTOR** (24.8%) are less thoroughly managed, suggesting gaps in their administration. Other resources such as **E-Journals** (35.4%) and **OPAC** (39.8%) show moderate management, with some respondents reporting them as not being thoroughly managed. This highlights varying levels of

attention and resource allocation across different electronic services.

The third finding revealed that the frequency of management for various electronic resources in the libraries of Colleges of Education in North-East Nigeria. Resources such as **E-Reference Sources** (53.1%) and **CD-ROM Databases** (48.7%) are most thoroughly managed, indicating a strong focus on their maintenance. **E-Books** (44.2%) and **AGRICOLA** (48.7%) also receive substantial attention, with many reporting they are very thoroughly managed. However, resources like **TEEAL** (27.0%) and **JSTOR** (24.8%) are less thoroughly managed, suggesting gaps in their administration. Other resources such as **E-Journals** (35.4%) and **OPAC** (39.8%) show moderate management, with some respondents reporting them as not being thoroughly managed. This highlights varying levels of attention and resource allocation across different electronic services.

The finding by Motajo, Motajo, Ifoto and Ogueji (2025) that computer and internet self- efficacy, emotional intelligence and participation in the online discussion forum significantly correlate with web search effectiveness lend credence to the current finding in this study. These two studies are somewhat related; hence the results are similar. This similarity might be as a result of the fact that the study were conducted in the same environment, the same context using similar respondents. Similarly, web search effectiveness is related to information retrieval effectiveness because the former is a sine-qua-non to the later. In this research, computer self-efficacy was found to be the best predictor of ER.

Conclusion

The study assessed the availability and utilization of electronic resources for

effective information service delivery among library professionals in colleges of education in North-East Nigeria. The findings revealed that the majority of these libraries have electronic resources in place, utilizing various systems such as Internet services, KOHA, OPAC, Institutional Repositories, and different Information Retrieval Models to enhance information delivery. Commonly used resources include e-journals, e-books, OPAC, and databases like AGORA, JSTOR, and TEEAL. However, the study also highlighted significant challenges, including limited ICT infrastructure, poor internet connectivity, lack of adequate computer skills, erratic power supply, and difficulties in navigating and accessing relevant resources. These obstacles have impeded the full optimization of electronic resources in information services.

Recommendations

Based on the findings and conclusion of the study, the following recommendations were made:

1. Colleges of education should prioritize the improvement of ICT infrastructure by investing in reliable internet connectivity, modern computer systems, and adequate power supply.
2. There is need for continuous training programs aimed at equipping library professionals with the necessary computer skills and knowledge to effectively utilize electronic resources.
3. Libraries should consider investing in user-friendly and customized systems that align with the needs of the users.
4. To avoid technical issues and downtime, it is essential to have regular maintenance and technical

support for existing electronic systems.

5. Institutions should seek partnership with government agencies, NGOs, international bodies to gain access to funding and technical support for the acquisition of electronic resources, ensuring that more comprehensive ICT infrastructure is available.

Reference

- Abdul, J. (2023). Effects of management practices and accessibility on use of information resources by undergraduate students in federal university libraries in north-central Nigeria (*doctoral dissertation*).
- Ahmed, M. N., Haque, R., bin S Senathirajah, A. R., Khalil, M. I., Ahmed, S., Devasia, S. N., ... & Isa, A. (2024). Library services provision during the Covid-19 pandemic: A Comparative Study between developing countries. *International Journal of Religion*, 5(5), 816-831.
- Akbar, A., Jabbar, A., Saleem, Q. U. A., & Ashiq, M. (2024). Access and use of digital information resources by students with vision impairment: Challenges, prospects and expected role of libraries. *International Journal of Disability, Development and Education*, 71(2), 189-207.
- Anjorin, S. O., & Awujoola, A. O. (2023). Influence of institutional internet connection on the use of electronic information resources by undergraduates of university of Ibadan, Nigeria. *Library Philosophy & Practice*.
- Ashilungu, M., & Onyancha, O. B. (2024). Faculty–librarian cooperation in collection development at the university of Namibia library, with special reference to electronic resources. *Collection and Curation*, 43(1), 8-18.
- Benmakhlouf, H., & Chouaou, A. (2024). Electronic document, information, and archive management systems in economic institutions: a descriptive study of the on base system. *International Journal of Professional Business Review: Int. J. Prof. Bus. Rev.*, 9(6), 11.
- Bizi, U. B., & Liman, I. (2023). Availability, accessibility, and utilization of electronic information resources by students in federal university of Gashua library. unpublished dissertation.
- Gilbert, K. (2024). Assessing the e-resources among librarians and its use in some selected colleges of education libraries in north-eastern, nigeria. *International Journal of Library Science and Educational Research*.
- Hamouche, S. (2023). Human resource management and the COVID-19 crisis: Implications, challenges, opportunities, and future organizational directions. *Journal of Management & Organization*, 29(5), 799-814.
- Hassan, E., Groot, W., & Volante, L. (2025). The relationship between education funding and student performance in unity schools in Nigeria. *Education Sciences*, 15(1), 86.
- Ibrahim, N., & Tukur, B. (2023). Selection, acquisition and preservation of e-resources in academic libraries: a reflection of on information resources development and management. *International Journal of Research and Analytical reviews*, 10(4), 853-862.

- Imam, A., & Ilori, M. E. (2023). Library services and information management: the role of academic librarians in the 21st century Nigeria. *Internet Reference Services Quarterly*, 27(2), 103-109.
- Kayyali, M. (2025). Strategic Planning in higher education: frameworks and best practices In *Planning Tools for Policy, Leadership, and Management of Education Systems* (pp. 251-286). IGI Global.
- Khan, A. U., Ma, Z., Li, M., Zhi, L., & Wang, Y. (2024). From silent spaces to smart spaces: Leveraging IoT-based innovative services to enhance library system performance using SEM approach. *Information Development*, 02666669241241755.
- Li, F. (2024). Analysis and research on library management technology based on the integration of virtual reality and management. *Journal of Electrical Systems*, 20(6s), 602-618.
- Militello, J. (2025). Mediating social and informational serendipity. *Language & Communication*, 100, 274-291.
- Motajo, O. O., Motajo, M. O., Ifoto, O. S., & Ogueji, I. A. (2025). "There may be some form of shaming from the health care providers": Exploring health system barriers to accessing HPV vaccines among the Nigerian general public. *Current Psychology*, 1-10.
- Omodan, B. I. (2024). Redefining university infrastructure for the 21st century: An interplay between physical assets and digital evolution. *Journal of Infrastructure, Policy and Development*, 8(4), 3468.
- Osabutey, E. L., & Jackson, T. (2024). Mobile money and financial inclusion in Africa: Emerging themes, challenges and policy implications. *Technological Forecasting and Social Change*, 202, 123339.
- Tajudeen, F. P., Moghavvemi, S., Thirumoorthi, T., Phoong, S. W., & Bahri, E. N. B. A. (2025). Digital transformation issues and challenges: solutions for malaysian smes. In *Digital Transformation of Malaysian Small and Medium Enterprises* (pp. 69-89). Emerald Publishing Limited.
- Teketelew, B. B., Bayleyegn, B., Berta, D. M., Enawgaw, B., & Woldu, B. (2023). Anemia and associated factors among internally displaced children at Debark refugee camp, North Gondar, Northwest Ethiopia. *Plos one*, 18(5), e0285627.
- Thurm, D., Li, S., Barzel, B., Fan, L., & Li, N. (2024). Professional development for teaching mathematics with technology: a comparative study of facilitators' beliefs and practices in China and Germany. *Educational Studies in Mathematics*, 115(2), 247-269.
- Yang, Y., Chen, S., Zhu, Y., Liu, X., Ma, W., & Feng, L. (2024). Intelligent extraction of reservoir dispatching information integrating large language model and structured prompts. *Scientific Reports*, 14(1), 14140.

