

Tanzanian University Libraries' Approaches for Promoting Access and Use of Electronic Information Resources

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ABSTRACT

This study examines the approaches used by Tanzanian university libraries to promote access to and use of electronic information resources. Although universities have increasingly invested in electronic databases, e-books, and e-journals to support teaching, learning, and research, evidence suggests that these resources remain underutilized. This underutilization is largely attributed to limited user awareness, ineffective promotion strategies, and persistent accessibility challenges. The study therefore sought to identify the types of electronic resources available in Tanzanian university libraries and to evaluate the strategies employed to promote their access and use. A descriptive survey research design was adopted, supported by a mixed-methods approach. Data were collected through questionnaires and interviews from a sample comprising 357 postgraduate students, 141 library staff, and 7 library directors across seven universities. This design enabled efficient data collection from a geographically dispersed population while allowing for both quantitative and qualitative insights. Quantitative data were analyzed using descriptive statistics with SPSS version 23, whereas qualitative data were subjected to content analysis. The findings indicate that Tanzanian university libraries have established a strong base in providing core electronic resources, particularly online databases, e-books, and e-journals. Promotion strategies such as user orientation programs and the use of university and library websites were perceived as the most effective in enhancing awareness and encouraging usage. However, the study also identified gaps, including limited availability of supplementary resources and a lack of coordinated, multi-channel promotion strategies. The study concludes that while significant progress has been made, further improvements are necessary to maximize resource utilization. It recommends expanding underrepresented electronic resources through subscriptions and collaboration with the Consortium of Tanzania University and Research Libraries (COTUL), strengthening access systems, promoting open-access materials, and implementing integrated, user-centered promotion and monitoring strategies to enhance accessibility and effective use.

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1.0 Introduction

According to Borgman (2000), Lynch (2003), and Tenopir and King (2000), the 1990s marked a period of rapid expansion of electronic resources in academic libraries, including online databases, electronic journals, and digital repositories. This development was preceded by earlier digital information services such as licensed bibliographic databases and CD-ROM products that emerged in the late 1980s and early 1990s. The widespread growth of the Internet and web-based technologies during the mid-1990s accelerated the shift from predominantly print collections to digital formats in universities. As a result, libraries were compelled not only to provide access to these electronic resources but also to implement deliberate promotional strategies to enhance user awareness, acceptance, and effective utilization.

University libraries worldwide are increasingly investing in electronic information resources to support teaching, learning, and research. In Tanzania, university libraries have subscribed to various electronic databases, e-journals, e-books, and institutional repositories to enhance access to scholarly information. Despite these investments, evidence suggests that the level of access to and effective use of electronic information resources among students and academic staff remains relatively low (Pessa, 2019).

Moreover, universities invest substantial financial resources in subscribing to electronic databases. However, without clear knowledge of what resources exist, it becomes difficult to evaluate whether these collections adequately support academic programmes and users' information needs.

Furthermore, there is limited empirical evidence documenting the specific approaches employed by Tanzania university libraries and evaluating how these approaches influence users' awareness, accessibility, and actual utilization of electronic information resources (Samzug, 2019). Without a clear understanding of these strategies and their effectiveness, universities may continue to underutilize costly electronic subscriptions, leading to resource wastage and limited academic impact.

Therefore, this study seeks to examine the approaches used by Tanzania university libraries to promote access to and use of electronic information resources, assess their effectiveness, identify existing challenges, and propose strategies for improvement.

1.1 Research Objective

The general objective of this study is to assess Tanzanian university libraries' approaches for promoting access to and use of electronic information resources. Specifically, the study seeks to identify the types of electronic information resources available in Tanzanian university libraries and to examine the methods used to promote their accessibility and utilization in selected universities in Tanzania.

2.0 Literature Review

Globally, best practices for promoting electronic resources extend beyond merely providing access and emphasize ensuring that users are aware of, and able to effectively utilize, available digital collections (Association of College & Research Libraries [ACRL], (2018); Adeyoyin, (2019); Ahenkorah-Marfo & Akussah, (2018); Corral, Kennan, & Afzal, (2019). Academic libraries increasingly implement integrated marketing strategies that leverage multiple communication platforms. Library websites serve as centralized access points, offering organized links, research guides, and user support, while social media platforms are employed to highlight resources, provide instructional tutorials, and engage users interactively. In addition, structured training programs, such as workshops, orientation sessions, and virtual information literacy initiatives, play a critical role in equipping students and faculty with the skills necessary to navigate electronic databases efficiently. Regular email alerts, newsletters, and notifications about new acquisitions or research tools further reinforce awareness and sustained usage. Collaboration with faculty to embed electronic resources into course outlines, reading lists, and assignments ensures that these materials are integrated directly into the teaching and learning process. Libraries also develop instructional tools, including LibGuides,

quick-start videos, posters, and QR codes, to facilitate both physical and remote access. Participation in library consortia, such as OhioLINK in the United States, has enhanced promotional efforts by expanding shared digital collections and pooling marketing and negotiation resources. Evidence from developed regions, particularly in North America and Europe, demonstrates that coordinated web campaigns, embedded video tutorials on library homepages, targeted social media communications, and collaborative online orientation modules significantly enhance user engagement and resource discovery. Continuous assessment using usage statistics and user feedback ensures that promotional strategies remain responsive, effective, and aligned with user needs.

In African contexts, including Ghana, Kenya, and Tanzania, the promotion of electronic resources remains an emerging practice that is often not fully institutionalised (Sejane, 2018). At the University of Development Studies in Ghana, libraries have sought to enhance awareness and utilisation of e-resources through user training workshops and web-based instructional content, including YouTube guides. In Kenya, studies indicate that expanding access and providing targeted training are essential for user engagement, although persistent usability challenges continue to limit effectiveness. In Tanzania, university libraries employ a combination of institutional websites, social media platforms, posters, flyers, and instructional sessions to promote e-resources; however, usage remains moderate due to generally weak promotional efforts and limited budgetary allocations for marketing. Institutions such as MUHAS and SUA have experimented with social media promotion, demonstrating some effectiveness on platforms such as Facebook and WhatsApp, yet these initiatives are often constrained by inconsistent internet connectivity and the lack of formal promotional policies. Across the African continent, common challenges to effective e-resource promotion include limited ICT infrastructure, low digital literacy among users, and inadequate funding incorporated into library planning, all of which hinder broader awareness and utilisation of electronic collections (Shikali & Muneja, 2024).

According to Yunisa and Onuoha (2020), a comparison of electronic resource promotion practices between developed regions and low-income contexts in Africa reveals marked disparities. In developed regions, technology infrastructure is generally robust and reliable, facilitating seamless access to digital collections, whereas many African universities contend with limited internet connectivity and shortages of essential hardware. The promotion of e-resources in developed contexts is typically embedded within strategic, ongoing marketing plans, while in African institutions, such initiatives are often ad hoc, relying on posters or occasional social media posts. Similarly, user training and engagement in developed regions are supported through standardised orientation programs and comprehensive digital literacy initiatives, whereas in Africa, such efforts are still emerging and frequently limited in scope. Additionally, developed universities allocate dedicated budgets and utilise formal assessment metrics to guide promotional strategies, in contrast to many African academic libraries, which operate under constrained budgets with ad hoc policy support. These contrasts collectively underscore a significant gap in formalised, well-resourced, and systematically evaluated promotion strategies between developed regions and many African universities. In the 21st century, electronic resources play a pivotal role in supporting academic research and learning activities; however, disparities persist in how these resources are promoted and utilised across different contexts. While universities in developed regions often implement comprehensive promotional frameworks supported by robust ICT infrastructure and dedicated funding, many academic institutions in Africa, including Tanzania, continue to encounter significant challenges such as inadequate internet connectivity, limited promotional planning, and constrained budgets, which contribute to the under-utilisation of electronic collections despite substantial investments (Shikali & Muneja, 2024). In response to these contextual limitations, this study aims to document how Tanzanian university libraries currently promote electronic resources, compare these practices with international best practices, and evaluate their effectiveness and challenges

through an examination of user awareness and usage patterns. Based on this analysis, the research will recommend strategies to address identified gaps in promotion, emphasising scalable solutions tailored to the Tanzanian context, including the development of integrated library websites, ongoing digital literacy initiatives, collaboration with faculty, and structured social media engagement to enhance resource visibility and utilisation.

Despite the growing importance of electronic information resources in supporting teaching, learning, and research, Tanzanian university libraries continue to face challenges in ensuring effective access and utilisation of these resources (Mashui, 2024). While many universities have invested in acquiring a variety of e-resources—including databases, e-journals, and digital repositories—the extent to which these resources are effectively promoted and utilised remains unclear. Factors such as limited awareness among users, inadequate promotional strategies, insufficient training, and constraints in ICT infrastructure may contribute to under-utilisation. Moreover, there is limited empirical evidence documenting the types of e-resources available in Tanzanian university libraries and the methods employed to promote their use. This gap makes it difficult to evaluate the effectiveness of current approaches and to identify best practices that can enhance user engagement and maximise the benefits of e-resources. Therefore, this study seeks to assess the approaches employed by Tanzanian university libraries in promoting access to and use of electronic information resources, with the aim of identifying effective strategies and areas for improvement. Pandurangaswamy and Kishore (2013) observed that the growing preference for electronic resources stems from users' limited time for engaging with printed materials, underscoring the need for effective promotion and utilisation of e-resources. They emphasise that awareness among key stakeholders – students, lecturers, librarians, and researchers – must be enhanced through deliberate and well-structured marketing strategies. Similarly, Zibani and Kalusopa (2019) argue that the successful marketing of e-resources requires strong institutional commitment to addressing user needs and ensuring accessibility.

However, Pessa (2019) offers a critical perspective, noting that while many libraries excel at acquiring and organising e-resources, they often fail to promote them actively to users. This imbalance suggests a significant disconnect between resource availability and user engagement. Critically, these studies reveal that inadequate marketing and user-centred promotion strategies undermine the potential impact of e-resources in academic institutions. Therefore, for e-resources to be effectively utilised, libraries must move beyond acquisition and focus on dynamic outreach, user training, and continuous engagement strategies that align with evolving digital behaviours.

Inyang and Obia (2019) identify three essential elements for the effective promotion of electronic resources: promoting the resources themselves, ensuring accessibility via library websites, and providing seamless user experiences. This framework highlights that awareness alone is insufficient; ease of access and user-friendly interfaces are equally critical for encouraging consistent utilisation. Their emphasis on accessibility reflects an understanding that digital infrastructure and usability significantly influence user engagement with e-resources. Complementing this, Kreft (2019) proposes a diverse mix of traditional and digital marketing strategies, ranging from bookmarks and brochures to social media platforms such as WhatsApp, Facebook, Twitter, and Instagram. While Kreft's approach is comprehensive, it raises questions about the practicality and sustainability of traditional marketing tools in a digital environment dominated by online communication, particularly regarding how libraries can effectively integrate these tools with their digital strategies to maintain user engagement. Critically, both perspectives underscore the need for libraries to adopt a hybrid marketing approach that combines visibility, accessibility, and user experience.

Research by Muneja (2023) indicates that public universities in Tanzania predominantly rely on social media to promote electronic resources (e-resources). However, a critical weakness lies in the prevalence of outdated or irrelevant e-resource listings on university websites, coupled with insufficient guidance for users on how to access and effectively utilise these resources. Mubofu

(2019) underscores the importance of strategies such as social networks, text messages, user orientations, and posters to enhance e-resource visibility, while also recommending investment in marketing, librarian training, and ICT infrastructure to improve promotion and utilisation. Complementing this, Agyei and Fiankor (2016), along with Kumar and Kumbar (2015) and Adeleke and Nwalo (2017), emphasise the necessity of regular training programmes to equip students and staff with the skills to search, access, and download e-resources efficiently, reducing reliance on trial-and-error approaches. Mwantimwa, Mwabungulu, and Kassim (2021) further highlight the need for librarians to actively engage academic staff through outreach and marketing initiatives to boost e-resource utilisation.

The 2004 New York Library Association Report also stresses the importance of fostering supportive environments for new information technologies, including adequate training and resource allocation. Critically, while the literature demonstrates a growing shift toward digital marketing strategies such as social media and mobile-friendly library websites, persistent challenges including poor internet connectivity, insufficient librarian training, and outdated resource listings undermine the effectiveness of e-resource promotion. This underscores the need for ongoing evaluation of marketing strategies and user engagement, particularly in Tanzanian institutions of higher learning, to ensure that e-resources are both accessible and effectively utilised.

3.0 Materials and Methods

This section describes the research methodology adopted in the study. The study employed a descriptive survey research design to examine Tanzanian university libraries' approaches for promoting access to and use of electronic information resources. The design enabled the analysis of postgraduate students and library staff as individual units within a geographically dispersed population across seven universities located in different regions of Tanzania. The study was conducted in selected public and private higher learning institutions, namely the Open

University of Tanzania (OUT), University of Dar es Salaam (UDSM), Muhimbili University of Health and Allied Sciences (MUHAS), Ardhi University (ARU), Mbeya University of Science and Technology (MUST), Hubert Kairuki Memorial University (HKMU), and Aga Khan University (AKU). These institutions were purposively selected because they represent the diversity of Tanzania's higher education system, operate under accreditation by the Tanzania Commission for Universities (TCU), and demonstrate active adoption of electronic information resources to support teaching, learning, and research activities. The study population comprised 6,016 postgraduate students, 207 library staff, and seven directors of library services obtained from institutional records. Using Yamane's (1967) formula, a sample of 375 postgraduate students, 138 library staff, and seven library directors was determined. Stratified random sampling was applied to postgraduate students based on academic programmes to ensure adequate representation, while purposive sampling was used to select library directors because they play a strategic and managerial role in the planning, implementation, and evaluation of library services and digital resource initiatives.

The study utilised both primary and secondary data collection methods. Primary data were collected through questionnaires administered to postgraduate students and library staff and interviews conducted with directors of library services to obtain in-depth managerial perspectives. Questionnaires were selected for their efficiency in collecting data from a large and geographically dispersed population, whereas interviews allowed flexibility for clarification and detailed responses. To ensure validity and reliability of the research instruments, a pilot study involving 10% of the intended sample was conducted within the selected institutions to maintain contextual relevance and methodological consistency. This approach enabled the refinement of questionnaires and interview guides under conditions similar to those of the actual study environment, thereby minimising ambiguities and improving clarity. Quantitative data obtained from questionnaires were analysed using descriptive statistics with the aid of SPSS version 23, while

qualitative data from interviews and document reviews were analysed through content analysis. The use of multiple data sources strengthened the credibility, consistency, and overall reliability of the study findings.

4.0 Results and Discussion

4.1 Results

The study involved a total of 498 respondents, including postgraduate students and library staff, from seven selected universities in Tanzania: The Open University of Tanzania (OUT), University of

Dar es Salaam (UDSM), Muhimbili University of Health and Allied Sciences (MUHAS), Ardhi University (ARU), Mbeya University of Science and Technology (MUST), Hubert Kairuki Memorial University (HKMU), and Aga Khan University (AKU). Seven library directors were also interviewed to get more information. The selected institutions represent a mix of large public universities (UDSM, MUHAS, OUT, MUST, ARU) and private universities (HKMU, AKU), enabling the study to capture variations in e-resource accessibility and utilisation across diverse institutional contexts.

Table 1

Number of Post Graduate Students (Respondents) Participated in the Study

University	Questionnaires Distributed	Questionnaires Received
University of Dar es salaam	100	65 (65%)
Open University of Tanzania	150	100 (67%)
Muhimbili University of Health and Allied Sciences	65	61 (94%)
Ardhi University	50	31 (62%)
Agha Khan University	50	41 (82%)
Hurbert Kairuki Memorial University	50	35 (70%)
Mbeya University of Science and Technology	50	24 (48%)
TOTAL	515	357

Source: Field Data (2023)

Out of 515 questionnaires distributed across seven universities, 357 were returned, giving an overall response rate of approximately 69%. This is

generally considered acceptable for survey research, indicating that the majority of participants engaged with the study.

Table 2

Number of Library Staff Participated in the Study

University	Questionnaires Distributed	Questionnaires Received
University of Dar es salaam	100	85 (85%)
Open University of Tanzania	10	08 (80%)
Muhimbili University of Health and Allied Sciences	12	08 (67%)
Ardhi University	15	13 (87%)
Agha Khan University	06	05 (83%)
Hurbert Kairuki Memorial University	04	04 (100%)
Mbeya University of Science and Technology	22	18 (81%)
TOTAL	169	141

Source: Field Data (2023)

Out of 169 questionnaires distributed, 141 were returned, giving an overall response rate of approximately 83%. This is a high response rate, suggesting strong engagement from the participants and reliability of the collected data.

in selected universities in Tanzania. To achieve this goal, both postgraduate library staff and library directors were asked to provide information regarding the range of electronic resources accessible in their institutions, as detailed in the following subsections.

4.1.1 Types of Electronic Information Resources Available in Selected Universities in Tanzania

The first specific objective of this study was to identify the types of electronic resources available

4.1.1.1 Postgraduate Students' Views on Types of Electronic Resources Available

Postgraduate students at the selected universities

were surveyed regarding the types of electronic information resources available. The analysis indicates that all identified categories of electronic

information resources are present across the selected institutions, as summarised in Table 3.

Table 3

Types of Electronic Resources Available in Selected Universities in Tanzania (n=357)

Items	Postgraduate students' views on EIRs availability(n=357)					
	Sparsely Available		Adequately Available		Highly Available	
	Frequency	%	Frequency	%	Frequency	%
Online databases	30	8.4	173	48.5	154	43.1
e-books	30	8.4	163	45.7	164	45.9
e-journals	20	5.6	153	42.9	184	51.5
e-thesis/dissertation	51	14.3	162	45.4	144	40.3
e-newspaper/Magazine	86	24.1	178	49.9	93	26.1
e-projects	95	26.6	167	46.8	95	26.6
Other e-research reports	65	18.2	190	53.2	102	28.6
Data archives	87	24.4	172	48.2	98	27.5
e-lecture notes	92	25.8	167	46.8	98	27.5

Source: Research Data (2023)

The findings indicate a generally strong provision of core electronic information resources within the surveyed universities, particularly online databases, electronic books, and electronic journals. Specifically, more than 43% of respondents reported that online databases are highly available, while 45.9% and 51.5% identified electronic books and electronic journals, respectively, as highly accessible within their institutions. These results suggest that universities place significant emphasis on providing fundamental digital resources that support academic research, teaching, and scholarly communication, thereby ensuring that students and faculty have adequate access to essential learning and research materials. These findings are consistent with Samzughi's (2019), who observed that higher learning institutions increasingly maintain hybrid library collections characterised by a strong provision of electronic information resources, including electronic journals, electronic books, subscription-based databases, and other online academic materials aimed at enhancing teaching, learning, and research activities.

In contrast, supplementary resources, including e-newspapers/magazines, e-projects, e-lecture notes, data archives, and other e-research reports, show a less consistent presence. For instance, 24–26% of respondents reported that e-newspapers, e-projects, and e-lecture notes are sparsely available, and only 26–28% considered them highly available. Similarly, data archives and other e-research reports are moderately available to the majority of respondents (48–53%), but a smaller proportion consider them highly available. This indicates a gap in the provision of resources that could support broader research activities, interdisciplinary studies, and current awareness in specific fields. Overall, the pattern suggests that while core electronic resources are adequately or highly available across these institutions, there is a noticeable deficit in supplementary resources that enrich academic inquiry. Addressing these gaps through targeted acquisitions, improved licensing, or resource-sharing initiatives could expand the variety of materials available, thereby enhancing the research experience and supporting more specialised or applied academic work.

Table 4
Types of Electronic Resources Available According to Library Staff (141)

Items	Library staff' views on EIRs availability(n=141)					
	Sparsely Available		Adequately Available		Highly Available	
	Frequency	%	Frequency	%	Frequency	%
Online databases	10	7.09	55	39.01	76	53.90
e-books	9	6.38	53	37.59	79	56.03
e-journals	14	9.93	49	34.79	78	55.32
e-thesis/dissertation	20	14.18	58	41.13	63	44.68
e-newspaper/Magazine	62	43.97	43	30.50	36	25.53
e-projects	56	39.72	55	39.01	30	21.28
Other e-research reports	37	26.24	58	41.13	46	32.62
Data archives	50	35.46	58	41.13	33	23.40
e-lecture notes	53	37.59	50	35.46	38	26.95

Source: Research Data (2023)

The data indicate that foundational electronic resources, such as online databases, e-books, and e-journals, are generally well-provided in the selected universities. Over 53% of respondents reported that online databases are highly available, while 56% and 55.3% indicated the same for e-books and e-journals, respectively. This demonstrates a clear institutional emphasis on ensuring access to core resources essential for academic research and scholarship. E-theses also show moderate to high availability, with 44.7% rating them as highly available and 41.1% as adequately available, further reinforcing the focus on essential academic materials.

In contrast, supplementary and specialised resources, including e-newspapers/magazines, e-projects, data archives, e-lecture notes, and other e-research reports, show lower levels of availability. For example, 43.97% of respondents reported that e-newspapers/magazines are sparsely available, and only 25.5% rated them as highly available. Similarly, e-projects and data archives are sparsely available to 39.7% and 35.5% of respondents, respectively, with less than a quarter reporting high availability. Other e-research reports and e-lecture notes show moderate availability, but a substantial proportion of users still encounter limitations in accessing these resources. This finding is consistent with Mwantimwa (2017), whose study on electronic resource utilisation in Tanzanian universities revealed that although core scholarly resources such as electronic journals and online databases are widely available, supplementary digital

resources tend to receive comparatively limited institutional attention and investment.

Overall, the analysis highlights a strong institutional focus on foundational e-resources necessary for core academic activities, while supplementary resources that support broader research, interdisciplinary studies, and current awareness remain under-represented. These gaps suggest the need for universities to diversify and expand their electronic collections, prioritise acquisition of specialised materials, and implement targeted promotion strategies to improve accessibility and utilisation across all types of electronic resources. Interviews with directors of library services revealed that university management prioritises the provision of diverse electronic resources. The management has committed to funding annual subscriptions for e-books and e-journals through the Consortium of Tanzania University Libraries (COTUL), while other resources, such as Open Educational Resources, are freely accessible online and made available through the library's website.

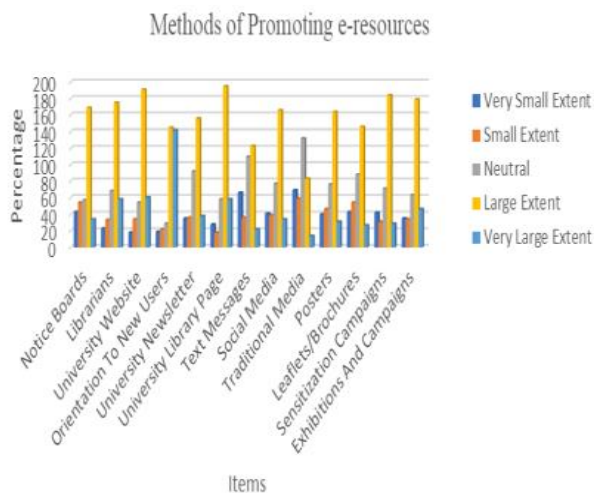
4.1.2 Methods Used by Libraries to Promote Accessibility and Usage of E-resources

In this subsection, postgraduate students, library staff, and library directors were asked to indicate the methods their libraries use to enhance access to and use of electronic information resources (EIRs). The results of the analysis are discussed in the following subsection.

4.1.2.1 Postgraduate Students' Views on Methods Used to Promote Accessibility and Usage of E-Resources

Postgraduate students were requested to report on the methods employed by libraries to promote the accessibility and usage of electronic information resources. The analysis, summarised in Figure 1, indicates various strategies used to reach their users effectively.

Figure 1
 Methods for Promoting Accessibility and Usage of E-resources (n=357)



Source: Field Data (2023)

The data show that most respondents rated orientation programmes, librarians, university/library websites, sensitisation campaigns, exhibitions, social media, posters, and newsletters as highly effective (mainly “large” or “very large”). Orientation and library websites received particularly strong support. In contrast, traditional media and text messages were viewed as less effective, with many neutral or low ratings. Overall, interactive and digital methods were perceived as more impactful than passive approaches. A critical examination of the methods used to promote accessibility and usage of electronic resources (E-resources) based on responses from 357 postgraduate students reveals clear patterns in perceived effectiveness.

Direct and interactive methods emerged as the most effective. Librarians were highly rated, with

65.2% of respondents considering their support significant or very large. Similarly, orientation programmes for new users (80.4% large/very large) and university websites (70.3% large/very large) were perceived as highly effective. University library pages also received strong positive ratings (70.8% large/very large), emphasising that students value hands-on guidance and structured digital platforms that provide clear access to resources.

Moderately effective methods included visual and semi-digital strategies. Notice boards (56.8% large/very large), posters (54.6% large/very large), leaflets/brochures (48.5% large/very large), and newsletters (54.3% large/very large) were useful but less impactful than interactive methods. Sensitisation campaigns (59.6% large/very large) and exhibitions (63% large/very large) were perceived as particularly effective among these, suggesting that events combining visual exposure with engagement offer better results than static print materials alone.

Digital communication channels such as social media and text messages showed moderate effectiveness. Social media was rated large/very large by 56%, while text messages were rated similarly by only 40.7%, indicating that while these tools can reach large audiences, their impact is dependent on user engagement and frequency of use.

Traditional media ranked lowest in perceived effectiveness, with only 27.1% rating them as large or very large, highlighting that passive outreach methods have limited influence on awareness and utilisation of E-resources among postgraduate students.

Overall, the data suggest a hierarchy of effectiveness: interactive and digital platforms (librarians, orientation, websites) > blended events and visual aids (exhibitions, sensitisation campaigns, posters) > passive or traditional methods (notice boards, newsletters, text messages, media). This underscores the need for universities to prioritise personalised and structured engagement while supplementing it with visual and digital outreach to maximise e-resource utilisation.

The analysis indicates that universities employ a wide range of strategies to promote awareness and accessibility of electronic information resources (EIRs), though their perceived effectiveness varies among users. Overall, the findings reveal that the most effective and widely used methods are the university library pages (54.6%), university websites (53.5%), sensitisation campaigns (51.5%), and exhibitions and campaigns (50.1%), all of which were rated by more than half of the respondents as having a large impact. These methods are primarily institutional and digital in nature, suggesting that students rely heavily on structured, technology-based communication channels to learn about available e-resources. Similarly, orientation for new users also demonstrated high effectiveness (40.6% large and 39.8% very large), showing that direct, guided engagement plays a crucial role in promoting awareness. Librarians were also recognised as an influential factor (49.0% large, 16.2% very large), reflecting their continued importance in facilitating e-resource access through personalised assistance and academic guidance. Conversely, traditional and less interactive approaches such as text messages (34.5% large), posters (45.9% large), leaflets/brochures (40.9% large), and notice boards (47.3% large) were moderately effective, implying that while they contribute to awareness, their impact may be limited in a digital learning environment. Social media (46.5% large) showed moderate success, possibly due to its informal and dynamic nature, though its educational use may still be under-exploited. On the other hand, traditional media recorded the lowest effectiveness, with only 23.2% rating it as large and 3.9% as very large, indicating a shift away from conventional communication platforms toward digital and interactive modes. Overall, the results suggest that universities have diversified their communication strategies, but the most effective approaches are those that combine structured institutional engagement and digital visibility, emphasising the importance of integrating web-based tools, librarian interaction, and user orientation to enhance awareness and utilisation of

electronic information resources in higher learning institutions.

Interviews with library directors reinforced these findings, with one noting: *"Campaigns, library day, brochures, exhibitions, meetings, orientations, information literacy training and social media are among the key strategies used to promote e-resources in their university."*

Some directors also mentioned social media platforms such as WhatsApp, Facebook, and Instagram as effective tools for promoting e-resources. Additionally, initiatives like brochures, information literacy programs, and orientation sessions for new students were cited as common methods for creating awareness about the availability and use of EIRs.

Other directors highlighted that their institution adopts a distinctive approach compared to other universities. They reported that hybrid methods are extensively employed to enhance awareness of available electronic resources and to promote their effective utilisation. Specifically, information literacy training sessions are conducted each quarter via Zoom, during which students are introduced to the different types of electronic resources and provided with guidance on how to access them. These sessions integrate both theoretical instruction and practical demonstrations, reflecting the belief that combining theory with hands-on practice enhances students' understanding and retention of the information.

Additionally, we have developed a comprehensive online manual that outlines in detail the different types of resources and the steps required to access them. In essence, we are committed to using multiple strategies to promote resource awareness, ensuring that the institution realises full value for the investments made in subscribing to e-resources.

The use of these methods reflects the proactive approach by universities to ensure that users are aware of and can effectively utilise e-resources. This aligns with Mubofu (2019), who mentioned institutional websites, orientations for new users, library homepages, social networks, and posters

and brochures. Eves and Dalzeil (2007) highlighted that computer literacy training is essential for the effective use of e-resources in university libraries, especially for postgraduates, given that much of the most recent and up-to-date information is stored electronically. However, the varying degrees of reliance on these methods suggest the need for a more integrated strategy to maximise their impact across all user groups.

4.1.3 Methods Used by Library Staff for Promoting Accessibility and Utilisation of E-Resources

The researcher sought to understand library staff perspectives on methods employed to promote the accessibility and utilisation of electronic information resources (EIRs) in the selected university libraries. The findings, summarised in Table 5, reveal a wide range of strategies utilised, with each varying in effectiveness and extent of application.

Table 5

Methods for Promoting Accessibility and Utilization of E-Resources by Library Staff (N-141)

Items	Methods for promoting accessibility and utilization of E-resources by Library staff (n-141)									
	Very small		Small		Neutral		Large		Very large	
	F	%	F	%	F	%	F	%	F	%
Notice boards	13	9.22	29	20.57	42	29.79	32	22.70	25	17.73
Librarians	3	2.13	15	10.64	36	25.53	48	34.4	39	27.66
University website	6	4.26	18	12.77	35	24.82	30	21.28	52	36.88
Orientation	3	2.13	10	7.09	33	23.40	45	31.91	49	35.46
University newsletter	15	10.64	29	20.57	49	34.75	29	20.57	19	13.48
University library pages	8	5.67	25	17.73	38	26.95	35	24.82	35	24.82
Text messages	33	23.40	34	24.11	40	28.37	22	15.60	12	8.51
Social media	25	17.73	24	17.02	40	28.37	31	21.99	21	14.89
Traditional media	25	17.73	33	23.40	45	31.91	25	17.73	13	9.22
Posters	11	7.80	36	25.53	40	28.37	35	24.82	19	13.48
Leaflets/brochures	9	5.38	26	18.44	49	34.75	38	26.95	19	13.48
Sensitization campaigns	14	9.93	32	22.70	48	34.04	33	23.40	14	9.93
Exhibitions and campaigns	18	12.77	24	17.02	36	25.53	34	24.11	29	20.57

Source: Research Data (2023)

The data show that library staff perceive interactive and digital methods such as librarians, university websites, orientation programmes, and library pages as the most effective for promoting e-resource use, with the largest percentages rating them "large" or "very large". Traditional and passive methods like notice boards, text messages, social media, newsletters, posters, leaflets, and campaigns received more mixed or lower ratings, indicating they are less consistently impactful. Overall, personalised and web-based approaches are favoured over conventional promotion tools. A critical examination of the methods employed by library staff (n=141) to promote the accessibility and utilisation of electronic resources (E-resources) reveals a nuanced pattern of effectiveness across both traditional and digital strategies.

The data indicate that personalised and interactive methods, such as librarians (61.7% rated large/very large) and orientation programmes (67.37% rated

large/very large), are perceived as the most effective strategies. Similarly, the university website (58.16% large/very large) and university library pages (49.64% large/very large) were highly rated, highlighting the importance of online platforms that offer structured, accessible, and up-to-date information for users. These findings suggest that direct engagement and digital self-service channels are central to ensuring students and staff are aware of and can effectively use e-resources.

Conversely, methods relying on more passive or traditional forms of communication, such as notice boards (40.43% large/very large), text messages (24.11% large/very large), social media (36.88% large/very large), and traditional media (26.95% large/very large), tend to have moderate impact. While these channels reach wider audiences, their effectiveness is limited by low engagement and the absence of tailored support, as reflected in the

relatively high neutral responses (ranging from 25% to 34%) and significant “small” or “very small” ratings. Mwantimwa (2017) demonstrated that passive dissemination methods often fail to provide the personalised guidance or practical support required for effective resource utilisation.

Printed materials such as posters (38.3% large/very large), leaflets/brochures (40.43% large/very large), and structured promotional events like sensitisation campaigns (33.33% large/very large) and exhibitions (44.68% large/very large) appear to have a moderate impact. Their success seems dependent on visibility, timing, and integration with interactive methods. Exhibitions and campaigns are slightly more effective than static print media, possibly due to their ability to combine direct engagement with visual appeal.

Overall, the data reveal a clear trend: interactive, direct, and online methods are more effective than passive or purely traditional approaches. Library staff should therefore prioritise strategies that involve direct user engagement, structured digital interfaces, and experiential promotional events, while traditional and social media methods should be integrated as supplementary channels to reinforce awareness and reach broader audiences. This emphasises a blended promotion model combining personal, digital, and physical methods to maximise e-resource utilisation.

4.2 Discussion

The findings show that Tanzanian universities prioritise core electronic resources, online databases, e-books, e-journals, and e-theses, which are widely available and supported through subscriptions coordinated by the Consortium of Tanzania University Libraries (COTUL). In contrast, supplementary resources such as e-newspapers, e-projects, data archives, and e-lecture notes are less available, indicating gaps in support for interdisciplinary and specialised research.

Regarding promotion, interactive and structured methods, particularly orientation programmes, librarian support, library websites, exhibitions, and sensitisation campaigns, are perceived as most effective. Traditional and less interactive approaches, including notice boards, posters,

leaflets, text messages, and traditional media, are viewed as less impactful. Overall, while libraries are strong in providing core resources, greater attention to supplementary materials and more coordinated, user-centred promotion strategies are needed to enhance access and utilisation.

5.0 Conclusion

Tanzanian university libraries provide strong core e-resources like online databases, e-books, and e-journals, but supplementary resources remain limited. Interactive and structured promotion methods such as orientation programmes, librarian support, websites, library pages, and campaigns are most effective, while passive approaches are less impactful. To make electronic resources more accessible, well-known, and used at all universities, a more coordinated strategy that includes digital, traditional, and human-mediated channels is needed.

6.0 Recommendations

Based on feedback from postgraduate students, library staff, and directors, Tanzanian universities should expand under-represented e-resources such as e-newspapers, e-projects, data archives, and e-lecture notes through additional subscriptions and collaboration with consortia like the Consortium of Tanzania University and Research Libraries (COTUL). Widely used resources, online databases, e-books, and e-journals should be sustained through timely renewals and user-friendly access. Open-access materials and institutional repositories should be well catalogued and promoted to increase usage.

To enhance utilisation, universities should adopt a coordinated, multi-channel promotion strategy that includes structured orientation programmes, active librarian support, updated library websites, social media, email and SMS alerts, as well as traditional methods like posters and institutional events. Continuous monitoring and user feedback are essential to identify gaps, improve services, and ensure balanced access to electronic information resources.

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9.0 Conflicts of Interest

The authors declare no conflict of interest.

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