

Trending Usage Levels of EIFL-Based Electronic Resources among the Zambian Library Consortium Institutions

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Abstract

Electronic resources are invaluable tools in research and academics. Their emergence and use have been major issues of discussion in scientific practice and literature. While some institutions have enjoyed using e-resources for some time now, others have recorded low usage.

This study has revealed various challenges of EIFL (Electronic Information for Libraries) e-resources usage in ZALICO (Zambian Library Consortium) institutions. Today, ZALICO has access to over 30 databases from reputable publishers, most of which come under open access through EIFL membership. Despite having been with EIFL for more than a decade, ZALICO members still experience the low usage of electronic resources. The real causes of low usage of e-resources at the institutional level are not clear hence the need to establish factors behind this problem and the way to solve it. This picture may be worrying as the consortium continues to spend financial means on e-resources that are not appreciated by users. Other concerns may be on the quality of literature users are using in their academic activities.

The main aim of the study was to establish factors behind the low usage of EIFL resources among ZALICO institutions. The study examined these issues as a case study. The questionnaire and usage analysis were used for data collection. The Statistic Package for Social Sciences software and Microsoft Excel were used for analyzing quantitative data, while content analysis was used for qualitative data from the questionnaire open-ended questions. The study reveals various access and usage challenges such as poor Internet connections, inadequate search skills among users, ineffective e-resources promotion strategies resulting in low awareness levels, problems of registration to EIFL resources, and non-proactive librarians.

To improve the situation, the research identifies four undertakings: continuous user training, more sensitizations and promotions of e-resources using various methods, improved Internet connections (increased bandwidth, provision of more hot spots at various locations and increased Internet access points), and training of institutional librarians on the registration process as it is deemed to be cumbersome.

Keywords: Electronic information resources, e-resources, EIFL (Electronic Information for Libraries), usage, users, ZALICO (Zambian Library Consortium), ZALICO institutions, Zambia

Introduction

With scholarly communication taking a paradigm shift in methods of collection, management, use, reuse, and dissemination of scholarly research information, similarly, academic libraries have experienced tremendous change in methods of service provision to their users. This is

in the quest to satisfy user information needs in the best way possible. In the recent past, most academic libraries have migrated from traditional print-based resources to electronic resources – collections of e-books, e-journals, online databases, while others have embraced the hybrid type of collections.¹

As such, the electronic resources have remained invaluable learning and research tools in academic environments in the sense that they complement the print-based resources in a traditional library set-up while making easy the information access and use regardless of the geographical location.²

This study set out to examine issues behind the low usage of Electronic Information for Libraries (EIFL)-based resources among the Zambian Library Consortium (ZALICO) institutions.

Background Information

E-resources are information materials that exist in digital format and can only be accessed through electronic devices mainly computers, laptops, tablets, and cell phones. E-resources include, but not limited to full-text e-journals, e-books, e-databases, e-thesis and dissertations, e-newspapers, reference materials, blogs, Online Public Access Catalogues, websites, and many others.³

Several higher learning institutions in Zambia have been providing access to full-text e-resources from scholarly databases and publishers to their user communities for more than a decade now. The presence of the two prominent non-profit-making international bodies – the International Network for the Availability of Scientific Publications (INASP) and EIFL – has facilitated the provision of e-resources in a more organized manner through a consortium arrangement. For this purpose, on 7th June 2004, a group of academic and research libraries in Zambia formed the Zambian Library Consortium to help coordinate resource sharing and subscriptions to a wide range of online resources from various publishers at a discounted rate.

Today, ZALICO has access to over 30 databases from reputable publishers, most of which come under open access through EIFL membership. Such databases include Oxford Online resources, BioOne, Cambridge online, JSTOR, Royal Society, Edward Elgar, and Intellect. Some of these databases are quite huge and cover a wide range of subject areas relevant to all ZALICO institutions.

Despite these efforts to enable ZALICO institutions to access electronic information resources, UNZA quarterly reports and EIFL country usage reports have revealed low usage of these resources by both faculty and students in member institutions.⁴ It is for this reason that this study aims to understand the factors behind the low usage of EIFL-negotiated e-resources among ZALICO institutions and to find a solution.

Problem Statement

Despite having been with EIFL for more than a decade, ZALICO members still experience low usage of electronic resources. EIFL country usage statistics, serials annual reports, and research

¹ Parveen Kumari, "Procurement, management and use of e-resource in current library trends: common issues", *International Journal of Digital Library Services* 5 (2) (2015): 150.

² P. S. Dadzie, "Electronic resources: access and usage at Ashesi University College", *Campus-wide Information Systems* 22, 5 (2005): 290–297; Olubanke Mofoluwaso Bankole, Bosede Adebimpe Ajiboye and Aderonke O. Otunla, "Use of electronic information resources by undergraduates of federal university of agriculture, Abeokuta, Ogun state, Nigeria", *International Journal of Digital Library Services* 7, 13 (2016): 2.

³ Bankole, Ajiboye and Otunla, "Use of electronic information resources by undergraduates of federal university of agriculture, Abeokuta, Ogun state, Nigeria": 2.

⁴ Electronic Information for Libraries see EIFL, 2016–2019, Country usage statistics; UNZA Serials annual report reports, 2016–2019.

on the use of e-resources in ZALICO members have shown low usage of e-resources.⁵ The real causes of low usage at the institutional level are also not clear hence the need to establish factors behind this problem and ways through which uptake can be improved.

This picture may be worrying as the consortium continues to spend financial resources on e-resources that are not appreciated by the users. Other concerns may be on the quality of literature users are using in their academic activities.

Research Objectives

The main aim of the study was to establish factors behind the low usage of EIFL resources among ZALICO institutions.

The specific objectives were to:

1. Assess the usage levels of EIFL e-resources among ZALICO institutions between 2016 and 2019;
2. Identify access challenges ZALICO institutions face towards accessing EIFL e-resources;
3. Determine strategies to improve usage of EIFL e-resources in ZALICO institutions.

Research questions:

1. What was the usage trend of EIFL e-resources among ZALICO institutions from 2016 to 2019?
2. What factors are behind the low usage of EIFL e-resources among ZALICO institutions?
3. What tools or strategies can be used to promote the use of EIFL e-resources in ZALICO institutions?

Literature Review

The literature review looks at the relevant literature on the use of e-resources in higher learning institutions in different parts of the world. It is an important section of the study because it helped determine prior studies that have been done on the use of e-resources in academic setting and how the present study fits in. The literature review helped identify existing information or knowledge gaps that the present study could address to help promote the use of e-resources not only in ZALICO institutions but globally. The literature review further helped the researcher to avoid replicating research while refining the research objectives, questions and research topic into a researchable topic.

E-resources Awareness and Usage

The emergence, obligation, and use of electronic resources in academic or research institutions have been major issues of discussion and research to help understand access issues and optimal use of these resources to benefit users.⁶ While some studies have shown a positive response to the use of e-resources, others have revealed low usage of the same.

⁵ Electronic Information for Libraries see EIFL, 2016–2019, Country usage statistics; UNZA Serials annual report reports, 2016–2019; Fabian Kakana, Eness MM Chitumbo, Boniface Namangala and Francis Simui, "Open access services as an alternative support to academic libraries: a case of University of Zambia Library", *Library and Information Association of Zambia* 3 1&2 (2016): 1–9; M. E. Miyanda, "Factors affecting utilisation of electronic information resources and services by Medical Students at the University of Zambia" (masters dissertation, Lusaka, University of Zambia, 2010).

⁶ Kumari, "Procurement, management and use of e-resource in current library trends: common issues": 150.

A study by Sivakami and Rajendran⁷ on awareness, access, and use of e-resources among faculty members in the arts and science colleges in Erode District, India, reveals low awareness and use of e-resources. The study further indicates that while more males were aware of the availability of e-resources than females, more females used the resources than males. Faculty members used e-resources mostly for teaching purposes.

A study by Mawere and Sai⁸ investigating the adoption and utilization of e-resources by students at Great Zimbabwe University reveals a limited adoption rate of e-resources among students despite many Zimbabwean academic institutions making e-libraries top priority in their strategic plans. The low usage is attributed to poor marketing strategies, the lack of resources among the students and the cost of providing Internet services by institutions. Tlakula and Fombad's study⁹ also indicates low levels of awareness and basic usage of e-resources (limited to SABINET and EBSCO host) by undergraduate students at the University of Venda in South Africa. Tlakula and Fombad explain that one of the reasons for the low usage was because students confused electronic resources to any web-based Internet sources and lack of continuous training, as the available training was mostly a one-off service provided at the first year orientation level.

Similarly, Baro, Endouware and Ubogu,¹⁰ in their study on the use of e-resources at Delta State University in Nigeria and Okelo and Magara¹¹ found that e-resources were underutilized due to lack of awareness of the resources. As such, Ajegbomogun¹² argues that, while electronic resources have become essential tools for learning, research, teaching, and consultancy, most of the scholars and researchers are not fully utilizing them. Similarly, Rehman and Ramzy¹³ claim that, although libraries may purchase and install the latest, most technologically advanced and expensive information systems and resources, online resources may not be optimally used due to a lack of awareness and the inability of users to use them. Therefore, it is imperative for library professionals to enhance the awareness and usage of e-resources through proactive marketing strategies and training of all users on information search and retrieval skills.

On the contrary, some studies have shown positive awareness and use of e-resources in some academic institutions. Thanuskodi¹⁴ investigated the use of e-resources by Annamalai University postgraduate students and researchers in the faculty of Art and found that the majority were aware of the e-resources and used them in their research. Tariq and Zia¹⁵ established that the daily usage of e-resources by students at the University of Karachi, Pakistan were high. Akuffo and Budu¹⁶ investigated the level of use of e-resources among students at the Akrofi-Christaller

⁷ N. Sivakami and N. Rajendran, "Awareness, access and usage of e-resource among faculty members in arts and science colleges", *Library Philosophy and Practice* 5, 3 (2019), accessed January 24th 2020, <https://digitalcommons.unl.edu/libphilprac/2549>.

⁸ Talent Mawere and Kundai O. Sai, "An investigation on e-resource utilisation among university students in a developing country: A case of Great Zimbabwe University", *South African Journal of Information Management* 20, 1 (2018): 1, <http://dx.doi.org/10.4102/sajim.v20i1.860>.

⁹ Tintswalo Pascalis Tlakula and Madeleine Fombad, "The use of electronic resources by undergraduate students at the University of Venda, South Africa", *The Electronic Library* 35, 5 (2017): 861–881, <https://doi.org/10.1108/EL-06-2016-0140>.

¹⁰ Emmanuel Ebikabowei Baro, Benake-ebide Endouware and Janet O. Ubogu, "Awareness and use of online information resources by medical students at Delta State University in Nigeria", *Library Hi Tech News* 28, 10 (2011): 11–17, DOI: 10.1108/07419051111202655.

¹¹ C. Okello-Obura and E. Magara, *Electronic Information access and utilization by Makerere University in Uganda* (2008), accessed April 15th 2009, <http://creativecommons.org/licenses/by/2-0>.

¹² Frederick Olatunji Ajegbomogun, "Impediments to harnessing scholarly electronic Journals on the Internet in developing countries: A Nigerian university case study", *Library Hi Tech News* 24, 6 (2007): 27–32, <https://doi.org/10.1108/07419050710823300>.

¹³ Sajjad Ur Rehman and Vivian Ramzy, "Awareness and use of electronic information resources at the Health Sciences Center of Kuwait University", *Library Review* 53, 3 (2004): 150–156.

¹⁴ S. Thanuskodi, "Use of E-resources by the Students and Researchers of Faculty of Arts, Annamalai University", *International Journal of Library Science* 1, 1 (2012): 1–2, DOI: 10.5923/j.library.20120101.01.

¹⁵ Hira Tariq and Muhammad Waseem Zia, "Use of electronic information resources by the students of faculty of Science, University of Karachi", *International Journal of Digital Library Services* 4, 3 (2014): 84.

¹⁶ Maxwell N. Akuffo and Stephen Budu, "Use of electronic resources by students in a premier postgraduate theological University in Ghana", *SA Journal of Information Management* 21, 1 (2019): 1. doi: <https://doi.org/10.4102/sajim.v21i1.1026>.

Institute of Theology, Mission, and Culture in Ghana and report high awareness and usage levels, adequate computer competencies, and derivation of multiple benefits of using e-resources. However, the study reports access problems such as inadequate information search and retrieval skills by some students.

Ultimately, the literature identifies two groups of usage levels, the positive or high usage and the low usage among different user groups. This makes it necessary to understand why academic and research institutions with similar mandates should have different stories to tell over the use and benefits of e-resources. For this purpose, the current study intended to investigate such concerns taking the case of ZALICO institutions in relation to the use of EIFL resources.

The Benefits of Using E-resources

Electronic resources are invaluable research tools in academic and research institutions in the twenty-first century. Research has confirmed that the use of e-resources in academics has great benefits to both individual users and their institutions. Akuffo and Budu,¹⁷ Kowalsky¹⁸ and Daramola¹⁹ assert that e-resources are crucial in enhancing students' research and learning activities due to their quality, easy access, and exhaustive information in a short time.

Tariq and Zia²⁰ and Ashikuzzaman²¹ cite other benefits of using e-resources such as simultaneous access 24/7, quick provision of scholarly up-to-date information in different forms, international reach and convenience, ability to integrate and link information resources and cross-search of different publications, thereby saving time. However, Tariq and Zia²² recommend the need to improve electricity supply and increased access points for the purpose of accessing e-resources in the university in order to improve the uptake.

Challenges in Accessing E-resources

Tariq and Zia²³ and Kumari²⁴ report slow Internet connection, power failure, license restrictions, costly infrastructure, maintenance, viruses, subscription issues, and information search skills as main challenges faced by the University of Karachi students in accessing and using e-resources. Israel²⁵ further alleges that poor funding to the library affects the acquisition and provision of library resources, including e-resources. He explains that adequate funding makes possible the acquisition of required infrastructural facilities, information resources, conducive environment, training and retraining of the staff, while a lack of it leads to the above-reported access challenges.

Meanwhile, Oyewo and Bello²⁶ identifies inadequate use of e-resources by undergraduate students, academics, and researchers resulting from cyber restrictions, lack of guidance on use,

¹⁷ Akuffo and Budu, "Use of electronic resources by students in a premier postgraduate theological University in Ghana": 10.

¹⁸ Michelle Kowalsky, "Opportunity Costs of Electronic Resources", *Procedia Economics and Finance* 23 (2015): 494, accessed September 15th 2016, <http://creativecommons.org/licenses/by-nc-nd/4.0/>.

¹⁹ C. F. Daramola, "Perception and utilization of electronic resources by undergraduate students: the case of the Federal University of Technology library, Akure", *American Journal of Educational Research* 4, 5 (2016): 366–370.

²⁰ Tariq and Zia, "Use of electronic information resources by the students of faculty of Science, University of Karachi": 86.

²¹ M. Ashikuzzaman, *Definition and types of e-resources* (2014), accessed March 9th 2015, <http://www.lisbdnet.com/definition-and-types-of-e-resources/>.

²² Tariq and Zia, "Use of electronic information resources by the students of faculty of Science, University of Karachi": 86

²³ *Ibid.*: 87.

²⁴ Kumari, "Procurement, management and use of e-resource in current library trends: common issues": 153–157.

²⁵ Ifijeh Goodluck Israel, "Assessing Faculty Use of University Library Collection and Services in Nigeria: A Case of Covenant University, Ota", *Library Philosophy and Practice* 574 (2011), accessed May 15th 2012, <https://digitalcommons.unl.edu/libphilprac/574>.

²⁶ R. O. Oyewo and G. R. Bello, "Students' accessibility and utilization of electronic information resources in the library: a case study of selected mono-technics in Oyo State", *The Information Technologist* 11 (2014): 227–232.

slow connectivity, and poor computer literacy skills. Their study further reveals negative attitudes towards e-resources. Like Israel²⁷ and Kumari,²⁸ Oyewo and Bello²⁹ recommend special training of students in order to enhance user search skills and effective use of e-resources.

Consequently, Kowalsky³⁰ argues that many older journals contain classic, foundational discoveries, or point to unique viewpoints on knowledge in many fields, which may never be digitized due to the high price tag of doing so, such as copyright limitations of changing formats, publisher embargoes, company mergers, or changes in ownership over time.

Literature Review Summary

The literature review has shown great benefits in e-resources application in academia despite the cited access challenges. The literature brings out two extreme usage levels of e-resources among different users. While some have enjoyed positive usage, others have experienced low usage. Negative factors which affect usage include poor Internet connectivity, lack of awareness and search skills among users, while positive factors include information currency, comprehensiveness and ease of access 24/7.

Consequently, the current researcher sought to establish whether these challenges were responsible for the low usage of EIFL-based e-resources among ZALICO institutions or otherwise.

Methodology

This study was a case study of ZALICO institutions' usage of EIFL negotiated e-resources. The study used a questionnaire and the usage statistics analysis for the data collection. The choice of the two data collection tools was to enable the researcher to collect in-depth data both quantitative and qualitative through the two instruments. The questionnaire had both standardized and open-ended interrogations. While quantitative data helped to establish usage trends, the qualitative method helped in getting in-depth information about respondents' feelings, opinions, and attitudes toward e-resources usage.

The study population covered all ZALICO institutions, while the target population was the ZALICO members with a membership of at least three years at the point of data collection. The reason for selecting members with three years and above membership was to involve only members with experiences with e-resources. At the time of the study, the consortium had 21 members, of which 16 institutions had three years and above of membership and were hence eligible to participate in the study.

A purposive sampling technique was used to select respondents from each institution. Only one librarian responsible for e-resources at each institution was selected to participate in the study. Having identified the sample size, the 16 questionnaires were distributed to the selected librarians for data collection. Out of the 16 distributed, 10 were returned and found usable for data analysis.

The Statistic Package for Social Sciences software and Microsoft Excel were used for analyzing quantitative data, while content analysis was used for qualitative data from the questionnaire open-ended questions.

²⁷ Israel, "Assessing Faculty Use of University Library Collection and Services in Nigeria: A Case of Covenant University, Ota": 9.

²⁸ Kumari, "Procurement, management and use of e-resource in current library trends: common issues": 153–157.

²⁹ Oyewo and Bello, "Students' accessibility and utilization of electronic information resources in the library: a case study of selected mono-technics in Oyo State".

³⁰ Kowalsky, "Opportunity Costs of Electronic Resources": 951.

Research Results and Discussion

General Information

The study recorded a response rate of 62.5%, which is generally a good response rate.

Of the ten questionnaire respondents, seven were females and three males; one was aged between 21–30 years, three aged between 31–40 years, and six aged between 40–50 years. In terms of their qualifications, one had a diploma, three had an undergraduate degree, while six had a postgraduate degree (Masters or Ph.D.).

Usage Levels of EIFL E-resources among ZALICO Institutions

Apart from JSTOR and Oxford products that showed a steady increase in usage of e-resources in most member institutions over time, the usage statistics analysis still reveal low usage of EIFL-based e-resources among ZALICO institutions compared to the total population of all institutions³¹. For instance, 2016 recorded 73,344 downloads, 2017 recorded 91,113 downloads, and 2019 recorded 110,383 downloads.

Database	2016	2017	2018	2019
BioOne	366	692	509	-
Edward Elgar	14	110	80	48
IMF	132	42	10	5
Intellect	3	0	4	0
JSTOR	58,758	76,480	75,286	94,754
NEJM	3,438	3030	1,349	-
Oxford Products	10,016	10,022	-	11,705
Royal Society	613	737	518	822
Total	73,344	91,113	77,756	110,383

Table 1: A four-year e-resources usage trend at consortium level

The results in Table 1 are similar to the findings of earlier research that reveal low levels of awareness as well as the basic usage of electronic resources by students and researchers in the various academic institutions studied.³²

While some studies, including the present study, have recorded low usage mainly resulting from lack of awareness and search skills, other studies have yet shown positively high awareness and usage of e-resources in certain academic institutions.³³

³¹ Electronic Information for Libraries *see* EIFL, 2016–2019, Country usage statistics.

³² Sivakami and Rajendran, "Awareness, access and usage of e-resource among faculty members in arts and science colleges"; Tlakula and Fombad, "The use of electronic resources by undergraduate students at the University of Venda, South Africa": 35; Baro, Endouware and Obogu, "Awareness and use of online information resources by medical students at Delta State University in Nigeria"; Okello-Obura and Magara, *Electronic Information access and utilization by Makerere University in Uganda*; Ajegbomogun, "Impediments to harnessing scholarly electronic Journals on the Internet in developing countries: A Nigerian university case study"; Rehman and Ramzy, "Awareness and use of electronic information resources at the Health Sciences Center of Kuwait University".

³³ Thanuskodi, "Use of E-resources by the Students and Researchers of Faculty of Arts, Annamalai University": 1; Tariq and Zia, "Use of electronic information resources by the students of faculty of Science, University of Karachi": 84; Akuffo and Budu, "Use of electronic resources by students in a premier postgraduate theological University in Ghana": 1.

When the respondents were asked if they were satisfied with the usage levels in their individual institutions, the majority (80%) indicated dissatisfaction.

This indicates the need to do something towards addressing the issue of low usage levels in ZALICO institutions. However, further analysis shows that although the respondent who indicated satisfaction with e-resources usage was also offering training to users, the usage statistics revealed low usage at the institutional level as presented in Table 2.

Database	2016	2017	2018	2019
BioOne	241	527	105	-
Edward Elgar	1	50	0	0
IMF	132	21	10	5
Intellect	0	0	3	0
JSTOR	10,544	11,479	7,000	8,369
NEJM	324	296	-	-
Oxford resources	1,731	1,731	-	1,540
Royal Society	171	187	115	183

Table 2: Copperbelt University usage trend 2016-2019

It could be worrying if librarians, whose duty is to satisfy the information needs of their users, were satisfied with the low usage of information resources in institutions they work. There is a need to deal with such an attitude to improve the e-resources uptake.

Another analysis was done to prove the relationship between the qualification of the staff and the presence of e-resources promotion in institutions. The results showed more training visibility in institutions where librarians had a postgraduate degree.

		Promotion of e-resources is very strong in my institution			Total
		Yes	No	No response	
Education level of respondents	Diploma	0	1	0	1
	UG (1st degree)	1	3	0	4
	PG (Master or PhD)	3	1	1	5
Total		4	5	1	10

Table 3: Relationship between education and e-resources promotions

User Perception of EIFL Resources

User's perception of EIFL e-resources was assessed using content quality and subject coverage. The respondents were requested to rate EIFL resources based on their scholarly nature, affordability, academic benefits, and content coverage on core subject areas of ZALICO institutions.

Out of the ten participating institutions, seven (70%) agreed that EIFL databases offer scholarly, hence reliable content while three (30%) did not respond. On affordability, five agreed that EIFL e-resources are affordable in terms of cost, one disagreed and four gave no response. Further, four respondents agreed that EIFL resources satisfied the various information needs of their users, two did not agree and four did not respond; six respondents agreed that EIFL resources cover core subject areas in their institutions, one indicated no, while three gave no response.

The respondents were further asked to classify their comprehension of the quality of EIFL resources using a three-point Lickert scale of "very good, good and not good". The results showed that the majority of the respondents perceived EIFL databases to offer very good scholarly content to the users in their institutions.

We can therefore deduce that the respondents trusted EIFL databases to provide good quality and affordable scholarly content relevant to the major subject areas offered by ZALICO institutions, and hence beneficial to ZALICO users. These findings are different from those of Tlakula and Fombad³⁴ and Oyewo and Bello³⁵ which reveal a negative attitude towards e-resources by different users because of the misconception that scholarly e-resources are any web-based Internet resources, even un-researched.

On the basis of the above-mentioned findings, the study recommends the introduction of massive awareness programs at consortium level on the availability, access, and use of e-resources in academics. This could include the provision of training to equip users with the required information search skills.

Challenges Faced by ZALICO Institutions towards Accessing E-resources

The respondents were asked to indicate the level to which they identify themselves with certain challenges associated with e-resources access and use. They included the inability of an institution to link e-resources to institutional websites, lack of information search skills, poor Internet connectivity, poor marketing strategies, and cumbersome registration process for EIFL resources. Figure 3 shows the results.

Apart from lack of search skills and poor Internet connections, the rest show less than 50% of the respondents identifying themselves with them. It is also noted that most of the respondents did not answer, making it difficult to confirm the results. For instance, out of ten participants, only three indicated that they had challenges with the registration to e-resources against six that did not answer. Three indicated that they had issues with marketing of e-resources against the six that did not respond while only one indicated having challenges with linking e-resources to institutional website against nine that did not answer. Meanwhile, it is evident that e-resources are not linked to institutional websites for easy access by users.

Further analysis was done to help single out factors associated with low usage of e-resources among ZALICO institutions. These were inquiries into the registration status of an institution to EIFL e-resources, e-resources link on institutional websites, awareness levels of e-resources in the institution, the presence of strong promotion programs on e-resources in an institution, users search skills, and the provision of training to users on access and use of e-resources.

The results indicated that out of the ten participating institutions, only three had registered for all EIFL e-resources (eight in total), while six had only registered to some. When asked to show how they fared in other services listed, the results are as captured in Table 4.

Variable	Yes	No	NR
E-resources link on institutional website	9	0	1
Awareness of e-resources	9	0	1
Strong promotions of e-resources	4	5	1
User search skills	5	2	3

Table 4: E-resources challenges among ZALICO members

³⁴ Tlakula and Fombad, "The use of electronic resources by undergraduate students at the University of Venda, South Africa": 35.

³⁵ Oyewo and Bello, "Students' accessibility and utilization of electronic information resources in the library: a case study of selected mono-technics in Oyo State".

Table 4 shows that despite having nine (90%) indicating having e-resources linked to institutional websites and hence users' awareness of the availability of the resources, the majority still felt that e-resources promotion was not strong in their institutions. Furthermore, despite the majority of respondents indicated that they had offered training to users on access and use of e-resources, 50% still felt that the users did not possess the much-needed information search skills.

Based on the above, the study identifies four main challenges that seem to affect smooth access to and use of e-resources in ZALICO institutions. These include inadequate search skills among users, poor Internet connectivity, weak or poor e-resources promotions strategies, and difficulties in the registration process. Despite the respondents indicating that institutions offered training to users, the revelation that users lacked adequate search skills says otherwise. There is a need for training users to equip them with search skills. These results are similar to those of Tariq and Zia³⁶ Oyewo and Bello³⁷ and Kumari,³⁸ which report, among others, slow network connection and lack of information search skills. Like Oyewo and Bello's study, the present study recommends special training of the users to enhance their search skills and ultimately, effective use of e-resources.

Strategies to Improve the Usage of EIFL e-resources in ZALICO Member Institutions

One of the study objectives was to identify strategies for improving the uptake of e-resources among ZALICO members. The respondents were asked to indicate strategies they thought would improve the use of EIFL resources in ZALICO members.

The following were suggested: continued training of both institutional librarians and users. Librarians need training on how to register for e-resources and on effective e-resources marketing in their respective institutions, while users need training on how to access e-resources. These results are similar to those of Oyewo and Bello³⁹ who recommended the provision of special training to students in order to enhance their search skills to effectively use the e-resources.

Another suggestion was to sensitize user communities at the institutional level on the availability of the EIFL resources through guidelines, distribution of brochures on the database registration process, and access to e-resources. Certain databases should be requested to upgrade their content coverage to meet the information needs of most institutions. While e-resources promotions should be encouraged, Internet connections also need to be improved through the increased access points such as hot spots in strategic places, Internet laboratories, number of computers, and bandwidth. The EIFL Country Coordinator is mandated to facilitate the registration of ZALICO institutions to EIFL resources. The researcher sought to establish the level of interaction between ZALICO members and their Country Coordinator on access problems. Out of ten participating respondents, only two revealed interaction with the EIFL Country Coordinator. The two were further asked to rate their level of satisfaction with the help given using a three-point Likert scale of "very satisfied, satisfied, and not satisfied". Of the two, one claimed to be "very satisfied" while the other indicated "satisfied" with the help given. These results reveal that ZALICO institutions do not seek help to resolve the access challenges experienced and end up with low usage.

³⁶ Tariq and Zia, "Use of electronic information resources by the students of faculty of Science, University of Karachi": 87.

³⁷ Oyewo and Bello, "Students' accessibility and utilization of electronic information resources in the library: a case study of selected mono-technics in Oyo State".

³⁸ Kumari, "Procurement, management and use of e-resource in current library trends: common issues": 153–157.

³⁹ Oyewo and Bello, "Students' accessibility and utilization of electronic information resources in the library: a case study of selected mono-technics in Oyo State".

When asked why most institutions never sought help from their Country Coordinator on issues relating to access and use of EIFL e-resources in their respective institutions, one participant said she did not know how EIFL resources related to other e-resources subscribed through INASP, but was, however, quick to admit her failure to communicate their challenges. We can therefore speculate that the most institutions are not proactive in resolving their e-resources access problems. One of the critical roles of librarians is the provision of relevant and accurate information to users at the time of need, failure to which renders them irrelevant.

Meanwhile, another respondent stated that she thought access to e-resources is automatic once an institution becomes a ZALICO member. This response was puzzling in the sense that even then, such members did not inquire on how to activate the assumed automatic access to the said resources for their clientele.

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Трендови у коришћењу електронских извора заснованих на EIFL-у међу институцијама Замбијског библиотечког конзорцијума

Резиме

Неколико високошколских институција у Замбији већ више од деценије пружа својим корисничким заједницама приступ е-изворима из научних база података и издавача. Присуство два непрофитна међународна тела – INASP (Међународна мрежа за доступност научних публикација) и EIFL (Електронске информације за библиотеке) олакшало је пружање е-извора на организованији начин. Група академских и истраживачких библиотека у Замбији формирала је 2004. године Замбијски библиотечки конзорцијум (ZALICO) ради координације дељења ресурса и помоћи приликом претплате на мрежне изворе. Данас ZALICO има приступ великом броју база података реномираних издавача, од којих већина омогућава отворен приступ путем чланства у EIFL. Неке од њих су ваома значајне и покривају широк спектар области релевантних за институције ZALICO.

Упркос напорима да се члановима ZALICO омогући приступ електронским информационом изворима, извештаји о коришћењу откривају да их студенти и факултети недовољно користе. Ситуација је незадовољавајућа јер конзорцијум троши значајна финансијска средства на е-изворе које корисници не цене. Са друге стране, квалитет литературе коју употребљавају у својим академским активностима је упитан и није јасно зашто у већој мери не користе понуђене изворе. Одлучено је да се спроведе истраживање и утврде околности које утичу на слабу употребу EIFL е-извора унутар конзорцијума. Специфични циљеви су били: процена нивоа коришћења EIFL е-извора у ZALICO институцијама у периоду 2016–2019, утврђивање изазова са којима се ZALICO институције суочавају у приступу овим ресурсима и утврђивање стратегије за побољшање ситуације.

Аутори су проучили релевантну литературу о употреби е-извора у високошколским институцијама у различитим деловима света. Њен преглед показује велике користи од њихове примене у академским

круговима, упркос наведеним изазовима приликом приступа. Негативни фактори који утичу на њихову употребу укључују лоше интернет везе и недостатак свести и вештина претраживања међу корисницима (док у позитивне спадају вредност информација, свеобухватност и лак приступ 24/7). Сходно овим закључцима, истраживачи су покушали да утврде да ли су исти ови изазови одговорни и за слабо коришћење EIFL е-извора међу ZALICO институцијама.

Ова студија је рађена као студија случаја, а за прикупљање података коришћен је одговарајући упитник на који је одговорило 16 ZALICO институција. Она је открила различите проблеме у коришћењу EIFL е-извора, сродне онима у истраженој литератури: лоше интернет везе, неадекватне вештине претраживања, неефикасне стратегије промоције е-извора, проблеме са регистрацијом и непроактивност библиотекара.

Један од циљева студије био је утврђивање стратегија за побољшање коришћења е-извора. Испитаници су замољени да наведу оне за које мисле да ће побољшати њихово коришћење. Препоручени су обука корисника о приступу изворима, обука библиотекара о процесу регистрације ресурса, боља информисаност о е-изворима и побољшање интернет веза. Од одређених база података би требало затражити да унапреде покривеност садржајем како би задовољиле потребе за информацијама већине институција. Интернет везе би требало побољшати и повећати број приступних тачака на стратешким местима, број рачунара и пропусност.

Истраживачи су настојали да утврде ниво интеракције између чланова ZALICO-а и државног координатора EIFL-а који би требало да олакша њихову регистрацију на EIFL изворе. Испоставило се да ZALICO институције често не траже помоћ од координатора у вези са приступом и употребом EIFL е-извора. Може се рећи да већина институција није проактивна у решавању проблема са приступом понуђеним изворима. Једна од кључних улога, у овом контексту, припада библиотекарима, а њихово недовољно залагање и неуспех по том питању чини их једноставно ирелевантним.

Кључне речи: електронски извори информација, е-извори, EIFL (Електронске информације за библиотеке), употреба, корисници, ZALICO (Замбијски библиотечки конзорцијум), ZALICO институције, Замбија

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