

INFLUENCE OF INFORMATION LITERACY SKILLS ON THE E-RESOURCES UTILIZATION AMONG CADETS IN MILITARY AND PARA-MILITARY LIBRARIES IN NORTH-WEST, NIGERIA

Mahmud Mohammed Aliyu

Nigerian Defence Academy Library Kaduna, Nigeria

Dr C. N. Ikonne

Department of Information Resources Management Babcock University Ilishan Remu Ogun State, Nigeria

and

Dr O. J. Okoro

Department of Information Resources Management Babcock University Ilishan Remu Ogun State, Nigeria

Abstract

Electronic resources Utilisation (ERU) offer cadets convenient and cost-effective access to information through military and paramilitary libraries; however, their utilization remains low. While prior studies show that information literacy skills (ILS) enhance electronic resource use in academic settings, limited empirical evidence exists for cadets in military and paramilitary institutions, particularly in North-West Nigeria. A survey research design was adopted, using proportionate stratified sampling to select 364 respondents from a population of 4,027 cadets. Data were collected using a validated questionnaire with reliability coefficients ranging from 0.91 to 0.96, and a 99.18% response rate was achieved. Data were analyzed using descriptive and inferential statistics at a 5% significance level. Findings revealed that information literacy skills significantly influenced electronic resource utilization (Adj. $R^2 = 0.24$, $F(1, 360) = 115.57$, $p < 0.05$). For ILS components: identify ($\beta = 0.52$, $t(356) = 2.41$, $p < 0.05$), locate ($\beta = 0.55$, $t(356) = 2.61$, $p < 0.05$), access ($\beta = 0.78$, $t(356) = 3.55$, $p < 0.05$) and evaluate ($\beta = 0.41$, $t(356) = 3.48$, $p < 0.05$) had positive significant influence on ERU of cadets. However, the use of ILS ($\beta = -0.40$, $t(356) = -$

2.83, $p > 0.05$) had negative significant influence on ERU of cadets in military and para-military libraries in North-West, Nigeria. The study concludes that strengthening information literacy skills is critical to improving electronic resource utilization among cadets. It recommends targeted training programmes and structured skill development initiatives to enhance effective access and use of digital library resources.

Keywords: Electronic resources utilization, Information literacy skills, Military and Para-military libraries.

Introduction

The library is a specialized social institution that supports the achievement of tertiary education objectives worldwide through the acquisition, organization, and dissemination of information resources. These resources exist in both physical and electronic formats, with e-resources becoming indispensable for accessing current scholarly information and transforming research practices (Francis, 2024). With the growing integration of Information and Communication Technologies (ICT) in higher education, particularly in Africa, Electronic resources (e-resources) are now central to modern academic libraries. E-resources are materials that require technological infrastructure such as hardware, software, networks, storage systems, and power supply for access and use. They include e-books, e-journals, databases, e-repositories, e-newspapers, multimedia, and electronic reference sources, used for academic work, research, and current awareness. Their provision supports teaching, learning, and research, thereby advancing institutional goals. Additionally, e-resources enhance efficiency through quick information retrieval, interdisciplinary research, global

collaboration, and enriched learning via interactive content, while also offering cost and sustainability benefits. E-resource utilization refers to the ability to identify, access, evaluate, and effectively use physical and digital information.

Information Literacy Skills (ILS) are essential competencies for locating, evaluating, and using information effectively. Naik and Padmini (2014) define them as the ability to recognize information needs and to identify, locate, evaluate, organize, create, and communicate information to solve problems. In the digital age, these skills enable effective use of diverse information sources and are critical for students and faculty navigating extensive e-resources in academic libraries (Shashikala, 2023). They underpin academic success and are closely tied to the research process, including formulating research questions, identifying appropriate sources, evaluating credibility, and applying information meaningfully (Mamta, 2023). Educational institutions and libraries play a key role in promoting information literacy. A 2025 report by Symbio6 highlights global trends in artificial intelligence (AI) adoption in libraries, noting that the Public Library Association (PLA), in its 2022–2026 strategic plan, emphasizes advancing digital, information, media, and AI literacy while ensuring equitable access to knowledge. The report underscores the integration of cataloguing technologies, and personalized services to enhance user engagement. Furthermore, Adedokun (2018) notes that information literacy extends to areas such as health, governance, and conflict resolution. Therefore, it should be prioritized in military and paramilitary institutions responsible for training professional personnel.

Statement of problem

Libraries public, private, academic or special are integral to academic institutions, enhancing the educational environment. Military and paramilitary libraries likewise provide essential information resources by acquiring, organizing, and disseminating knowledge in both physical and digital formats. Increasing access to electronic resources (e-resources) enables students and researchers to meet academic goals efficiently. Despite this availability, preliminary evidence suggests that cadets underutilize e-resources, which may negatively affect academic and professional performance and waste invested funds. For instance, Saba-Jibril et al. (2024) found that cadets at the Nigerian Defence Academy (NDA) rarely request database access (e.g., ProQuest and ScienceDirect), indicating low engagement.

Although prior studies have talked about information literacy and e-resources, limited research focuses on how information literacy skills influence cadets' utilization of e-resources in military and paramilitary libraries in North-West Nigeria. Information literacy skills such as: the ability to identify, locate, evaluate, and use information effectively and ethically are critical for maximizing e-resource use (ACRL, 2015). Without these skills, even well-equipped digital libraries may remain underutilized. This study therefore examines the influence of information literacy skills on e-resource utilization among cadets in military and paramilitary libraries in North-West Nigeria.

Research questions

The following research question was answered in the cause of this study:

1. What is the level of information literacy skills of cadets in military and para-military' libraries in North-West Nigeria?

Hypotheses

The following hypotheses were tested at 0.05 level of significance.

Ho1: Information literacy skills have no significant influence on e-resources utilization by cadets in military and para-military libraries in North-West.

Ho2: Information literacy skills indicators have no significant influence electronic resources utilization in military and para-military libraries in North-West, Nigeria.

Review of related literature

Studies show varying levels of information literacy among students. Hamizak and Ahmad (2024) found high information literacy skills among undergraduates at UiTM Puncak Perdana, while Ebiefung and Okafo (2022) reported mixed competencies at the Federal University Otuoke strong in formulating research questions but weak in accessing diverse sources. Oseghale (2023) similarly observed high digital information literacy among humanities graduate students at the University of Ibadan, suggesting positive effects of academic exposure. Evidence also indicates a strong link between information literacy skills and e-resource use. Ukachi (2015) found a significant positive correlation between undergraduates' information literacy skills and their utilization of electronic

resources in Nigerian university libraries. Hamizak and Ahmad (2024) likewise showed that students with higher information literacy are more proficient and confident in using e-resources.

However, contextual barriers affect utilization. Momanyi et al. (2018) identified institutional constraints at Maseno University limited time for literacy programs, overcrowded orientations, and inadequate training as key factors in underutilization. Ebiefung and Okafo (2022) cited poor internet connectivity and information overload, while Oseghale (2023) noted that low e-resource use persisted despite high literacy due to irregular internet access, low awareness, and insufficient training. Despite established links, gaps remain. Some studies report high literacy but low utilization, pointing to death of literature in contextual factors. Additionally, most research focuses on undergraduates or postgraduates, with limited attention to cadets in military and paramilitary institutions. This highlights the need for integrated, context-specific research on information literacy, contextual factors, and e-resource utilization in Nigerian special academic institutions.

Methodology

The study adopted a survey research design to examine information literacy skills and e-resources utilization among cadets in military and paramilitary tertiary institutions in North-West Nigeria. The population comprised 4,027 cadets enrolled in institutions that combine academic programmes with regular military or paramilitary training: the Nigerian Defence Academy (NDA) with 2,283 cadets and the Nigeria Police Academy (POLAC) with

1,744 cadets. A proportionate stratified sampling technique was used to select respondents. Institutions were selected based on their mandate to train regular cadets. The sample size was determined using the Taro Yamane (1968) formula, yielding 364 respondents at a 95% confidence level and a 5% margin of error. Data were collected using a structured questionnaire. The questionnaire consisted of two sections: Section A contained self-developed demographic items (institution, gender, and age), while Section B comprised 25 self-developed items measuring information literacy skills using a four-point Likert scale (VHL = Very High Level, HL = High Level, LL = Low Level, and VLL = Very Low Level). Of the 364 questionnaires administered, 362 were successfully retrieved and used for analysis. The instrument was confirmed reliable using Cronbach's Alpha, which yielded an acceptable coefficient. Data were analyzed using descriptive and inferential statistics to address the research questions and hypothesis.

Result

Research question one: What is the level of information literacy skills of cadets in military and para-military' libraries in North-West Nigeria?

To answer research question one, the level information literacy skills of cadets in military and para-military libraries in North-West, Nigeria were analyzed and presented.

Table 1.1

Level information literacy skills of cadets in military and para-military libraries in North-West, Nigeria

Skill Area	M	SD	Level
Identify	2.97	0.88	High
Locate	2.84	0.90	High
Access	2.75	1.00	High
Evaluate	2.73	1.08	High
Use	2.70	1.00	High
Overall	2.78	0.99	High

Decision Rule: 1.0-1.74 = Very Low Level; 1.75-2.49 = Low Level; 2.50-3.24 = High Level; 3.25-4.0 = Very High Level

Results and Discussion

The results in Table 1.1 indicate that cadets generally demonstrated a high level of information literacy skills (overall $M = 2.78$, $SD = 0.99$). Among the skill domains, Identify skills recorded the highest mean ($M = 2.97$), followed by Locate skills ($M = 2.84$). At the item level, the highest-rate skills were the ability to identify specific information needs ($M = 3.25$), apply information in academic writing ($M = 3.06$), and define research topics ($M = 3.01$). Skills related to accessing full-text electronic resources ($M = 2.98$) and using search engines for information retrieval ($M = 2.97$) were also notably high.

The findings indicate that cadets in military and para-military libraries in North-West Nigeria possess strong foundational information literacy skills, particularly in identifying, locating, and applying information. Their high ability to define information needs aligns with Ebiefung and Okafo (2022). They also demonstrate good competence in locating information via databases and search engines, though weaknesses in advanced search techniques (e.g., Boolean operators) persist, supporting Ugwu and Orsu (2017). In accessing information, cadets show moderate proficiency but face challenges with authentication and restricted systems, consistent with Ebiefung and Okafo (2022). More

notable weaknesses appear in evaluating information, where difficulties in assessing credibility and distinguishing scholarly sources suggest limited critical skills.

Similarly, while cadets can apply information, they show gaps in synthesis, citation, and use of plagiarism tools. This supports Momanyi et al. (2018) and Ukachi (2015), who note that resource availability does not ensure effective use due to skill deficiencies. Overall, cadets are stronger in basic skills (identifying and locating) than in advanced competencies (accessing, evaluating, and using information), highlighting the need for targeted interventions to improve higher-order information literacy for effective e-resource utilization.

Test of Hypotheses

In hypothesis one, the hypothesis was tested in line with the variable operation at a 0.05 level of significance

Hypothesis one: information literacy skills has no significant influence on e-resources utilization by cadets in military and para-military libraries in North-West, Nigeria.

Hypotheses one was tested with simple linear regression analysis. Information literacy skills operationalized with available e-resources. The result and conclusions of the regression analysis are reported in Table 1.2

Table 1.2

Simple linear regression analysis on information literacy skills and e-resources utilization by cadets in military and para-military libraries in North-West

Variable	B	SE	β	t	p
Information Literacy Skills	0.301	0.028	0.493	10.750	< .001

$R = .493, R^2 = .243, F(1, 360) = 115.57, p < .001$

Dependent variable: E-resources utilization.

Results and Discussion

The regression analysis revealed that information literacy skills significantly and positively influenced electronic resources utilization ($\beta = .493, t = 10.750, p < .001$). The model explains 24.3% of the variance in electronic resources utilization ($R^2 = .243$) and is statistically significant ($F(1, 360) = 115.57, p < .001$). This indicates that information literacy skills are a strong and positive predictor of electronic resources utilization among the respondents. The implication of this finding is that improvements in cadets' information literacy skills are likely to result in increased and more effective use of electronic resources. Consequently, Hypothesis One is rejected, as the results demonstrate a significant positive effect of information literacy skills on e-resources utilization.

This finding is consistent with recent studies such as Makinde and Okoye (2024), which confirm that information literacy significantly predicts effective use of electronic information resources among university students. The result further reinforces the view that possession of relevant information literacy competencies enhances users' ability to

navigate, access, and utilize digital information systems efficiently. Overall, the findings affirm that information literacy skills significantly influence e-resources utilization in military and para-military libraries in North-West, Nigeria, underscoring the need for continuous development of these skills to improve electronic resource usage.

Hypothesis two: Information literacy skills indicators have no significant influence electronic resources utilization in military and para-military libraries in North-West, Nigeria.

Hypotheses two was tested with multiple linear regression analysis. Information literacy skills indicators operationalized with available e-resources. The result and conclusions of the regression analysis are reported in Table 1.3.

Table 1.3

Multiple linear regression analysis on information literacy skills indicators and electronic resources utilization in military and para-military libraries in North-West, Nigeria

Variable	B	SE	β	t	p
Constant	35.026	2.066		16.957	.000
Identify	0.524	0.217	0.159	2.410	.016
Locate	0.552	0.211	0.160	2.611	.009
Access	0.783	0.220	0.269	3.553	.000
Evaluate	0.406	0.117	0.232	3.480	.001
Use	-0.400	0.141	-0.197	-2.833	.005

Dependent variable = E-resources utilization. $R = .548$, $R^2 = .300$,
Adjusted $R^2 = .290$, $F(5, 356) = 30.515$.

Results and Discussion

The results showed that the regression model significantly and positively influenced electronic resources utilization ($\text{Adj. } R^2 = .290$, $F(5, 356) = 30.515$, $p < .05$), explaining 29.0% of the variance after adjustment. This indicates that the combined information literacy skills significantly account for variations in cadets' utilization of electronic resources. Among the predictors, Access ($\beta = .269$, $t = 3.553$, $p < .001$) and Evaluate ($\beta = .232$, $t = 3.480$, $p = .001$) emerged as the strongest positive predictors, followed by Locate ($\beta = .160$, $p = .009$) and Identify ($\beta = .159$, $p = .016$). In contrast, Use showed a significant but negative relationship with electronic resources utilization ($\beta = -.197$, $t = -2.833$, $p = .005$). Overall, the findings indicate that accessing and evaluating information are the most influential skills in predicting electronic resources utilization among cadets in military and para-military libraries in North-West, Nigeria.

The implication of these results is that while most information literacy components enhance electronic resource utilization, the "Use" dimension presents an unexpected inverse relationship. This may suggest challenges such as difficulties in effectively applying retrieved information, possible cognitive overload, or reliance on alternative non-digital sources during academic tasks. Consequently, Hypothesis Two is partially rejected, as four indicators (Identify, Locate, Access, and Evaluate) significantly and positively influence electronic resources utilization, consistent with ACRL (2019) competency standards and empirical studies which show that strong information-seeking skills enhance digital engagement (Ikonne et al., 2021).

However, the negative influence of the “Use” skill contrasts with expectations and aligns with Momanyi et al. (2018), who observed that despite information literacy training, students may still underutilize electronic resources due to inadequate practical application skills. This highlights the need for targeted interventions that strengthen not only access and evaluation skills but also the effective application of information in academic and operational contexts.

Recommendation

Based on the findings of the study, the following recommendation are made:

Libraries in military and para-military institutions in North-West, Nigeria should integrate structured information literacy skills training that covers identifying, locating, accessing, evaluating, and effectively using information to improve cadets’ academic and professional engagement with e-resources.

With the current indication of low utilization of retrieval tools in military and para-military libraries, in Nigeria, the institutions should target orientation and user education should be conducted to increase cadets’ awareness and utilization of OPAC, Web-OPAC, and institutional repositories,

Since the “use” dimension of information literacy skills showed a negative effect, targeted interventions should address challenges

Regular workshops, seminars, and digital literacy campaigns should be organized to foster a culture of active and confident use of electronic resources in military and para-military libraries in North-West, Nigeria.

Conclusion

E-resources utilization among cadets in military and para-military libraries in North-West Nigeria demonstrates a strong reliance on instructional and academically oriented digital resources, particularly e-books, e-journals, e-dictionaries, and multimedia materials. The study shows that while cadets actively engage with content-based e-resources to support academic work, military training, and knowledge enhancement, their use of retrieval and search-oriented tools such as OPAC and institutional repositories remains comparatively low.

The findings further establish that information literacy skills play significant roles in shaping cadets' ability to access, navigate, and effectively use electronic resources. Additionally, most indicators of information literacy skills significantly contribute to improved e-resources utilization. Overall, the study concludes that strengthening information literacy capacities remains essential for enhancing cadets' effective utilization of e-resources and improving the overall quality of teaching, learning, research, and professional development in military and para-military library environments.

This study makes conceptual, empirical, and theoretical contributions by offering one of the first empirical investigations into how information literacy skills influence e-resources

utilization among cadets in military and para-military libraries in North-West Nigeria, a context that has been largely understudied due to institutional restrictions. It provides a valuable reference for stakeholders and can be adapted by both public and private organizations, highlighting the importance of information literacy in improving e-resources use. Additionally, the study reinforces and extends existing research by supplying empirical evidence of this relationship within North-West Nigeria and the broader national context.

References

- Adedokun, M. O. (2018) Information literacy and sustainable development. *International Review of Management and Business Research*, 7(2), 460-466.
- Association of College and Research Libraries. (2015). *Framework for information literacy for higher education*. Chicago, IL: American Library Association. (No DOI available)
- Ebiefung, R. & Okafor, C. (2022). Information Literacy Skills and Use of Electronic Information Resources (EIRs) By Undergraduates in Federal University Otuoke, Bayelsa, State, Nigeria. 1-15.
https://digitalcommons.unl.edu/libphilprac/7408?utm_source=digitalcommons.unl.edu%2Flibphilprac%2F7408&utm_medium=PDF&utm_campaign=PDFCoverPages
- Francis, F. (2024). Usage of e-resources in academic libraries. *Journal of online engineering education*, 14(2)13-26
- Hamizak, N. S. & Ahmad U. N. (2024). Information Literacy Skills in the Use of Electronic Resources among Undergraduate Students at Universiti Teknologi MARA. *Environment-Behaviour Proceedings Journal*, 9(1)81-88
<https://doi.org/10.21834/e-bpj.v9iSI%2018.5467>
- Makinde, O. & Okoye, M. (2024). How do attitudes towards electronic resources use and information literacy skills predict the use of electronic resources by health sciences postgraduates in Nigeria? *Journal of Information Science Theory and Practice*, 12(1), 45–62. <https://doi.org/10.1633/JISTaP.2024.12.1.4>

- Mamta, T. (2023), Assessing Information Literacy Programs in Academic Libraries: A Comprehensive Review. *International Journal of Information Studies* <https://doi.org/10.6025/ijis/2023/15/4/108-118>
- Momanyi, E. B., Toroitich, P. & Onderi, P.(2018). Information Literacy Programming, Students Skills and Utilization of E-Resources at Maseno University, Kenya. *International Journal of Research and Innovation in Social Science IJRISS II(IX)*, 93-108.<http://edocs.maseno.ac.ke/bitstream/handle/123456789/738/Full%20article.pdf?isAllowed=y&sequence=1>
- Naik, M. M. & Padmini, I. (2014). Importance of information literacy. *International Journal of Digital Library Services*, 4(3), 92-99. <https://web.archive.org/web/20180421104643/http://www.ijodls.in/uploads/3/6/0/3/3603729/9434.pdf>
- Oseghale, O. (2023). Digital information literacy skills and use of electronic resources by humanities graduate students at Kenneth Dike Library, University of Ibadan, Nigeria. *Digital Library Perspectives*, 39(1), 22-38. <https://doi.org/10.1108/DLP-09-2022-0071>
- Saba-Jibril, A. Y., Yahaya, A. M. & Ajayi, B. O. (2024). E-resources and users' reading habits in Nigerian Defence Academy Library, Kaduna. *Maiduguri Journal of Library and Information Science*, 23(1), 70-81. <https://mbjlisonline.org/index.php/jlis/article/view/218>
- Shashikala, A. K. (2023). Information Literacy: A Key to Access, Evaluate & Use of Information. *International Journal for Multidisciplinary Research*. 1(3), 1-14 <https://www.ijfmr.com/papers/2023/3/3338.pdf>
- Symbio6. (2025). Democratising AI for all organisations [Webpage]. *Symbio6* <https://symbio6.nl/en/about-us>
- Ugwu, C. I. & Orsu, E. N. (2017). Utilization of electronic resources by undergraduates at the University of Nigeria, Nsukka. *Library Philosophy and Practice (e-journal)*, Article 1567. <https://digitalcommons.unl.edu/libphilprac/1567>
- Ukachi, N. B. (2015), Information literacy of students as a correlate of their use of electronic resources in university libraries in Nigeria, *The Electronic Library*. 33(3), 486-501. <https://doi.org/10.1108/EL-05-2013-0085>

Appendix I

Questionnaire

Dear Respondent,

I am a PhD candidate in the Department of Information Resources Management at Babcock University, Ilesan-Remo, Ogun State, Nigeria. This research instrument is designed to gather data for the study titled **“Influence of information literacy skills on the e-resources utilization among cadets in military and para-military libraries in North-West, Nigeria.”** I kindly invite your voluntary participation in this study. Please be assured that all information you provide will be treated with the utmost confidentiality and will be securely destroyed upon completion of the research.

Thank you,

Yours sincerely,

Mahmud Mohammed Aliyu

Dr C. N. Ikonne

Dr J. O. Okoro

(08037001536)

Section A: Demography

1. Your institution

Nigerian Defence Academy Nigerian Police Academic

2. Tama

One two three four five

3. Gender

Male female

4. age

From 16-20 21-25 26-30 above 30

Section A : information literacy skills. Please rate your ability to identify, locate, access, evaluate, and use of information (**VHL= Very High level, HL= High level, LL=Low Level, VLL=Very Low Level**)

	Identify	VHL(4)	HL(3)	LL(2)	VLL(1)
1	I have the skills to identify a specific information needs for academic or research purposes to a...				
2	I have the skills to define a research topic and determine the type of information required to a...				
3	I have the skills to recognize the appropriate search terms for effective information retrieval to a...				
4	I have the skills to understand different types of academic sources like e-journals to a...				
	Locate	VHL(4)	HL(3)	LL(2)	VLL(1)
5	I have the skills to locate academic resources using library databases to a...				
6	I have the skills navigate online search engines like Google Scholar to find relevant materials to a...				
7	I have the skills to utilize advanced search techniques such as Boolean operators to narrow search results to a...				
8	I have the skills to understand different reference sources like encyclopedias to locate useful information to a...				
	Access	VHL(4)	HL(3)	LL(2)	VLL(1)
9	I have the skills to access full-text e-resources such as: e-books and e-journals to a...				
10	I have the skills to retrieve subscription-based or restricted access materials through university portals to a...				
11	I have the skills to organize e-resources for future reference to a...				
12	I have the skills to navigate authentication systems such as login credentials to access e-resources...				
	Evaluate	VHL(4)	HL(3)	LL(2)	VLL(1)
13	I have the skills to distinguish between primary and secondary sources of information to a...				
14	I have the skills to differentiate between scholarly and non-scholarly materials to a...				

15	I have the skills to identify misleading information in academic sources to a...				
16	I have the skills to assess the credibility of online sources to a...				
17	I have the skills to verify the accuracy of information from multiple sources to a...				
18	I have the skills to recognize irrelevant information to a...				
19	I have the knowledge to evaluate the authority of an author or publisher to a...				
	Use	VHL(4)	HL(3)	LL(2)	VLL(1)
20	I have the skills to apply gathered information effectively in academic writing to a...				
21	I have the skills to properly cite sources using standard styles like APA or MLA to a...				
22	I have the skills to synthesize information from multiple sources to support academic arguments to a...				
23	I have the skills to manage research materials for future use to a...				
24	I have the skills to present research findings clearly and effectively to a...				
25	I have the skills to apply turnitin and maintain academic integrity in research to a...				

Thank you for your time and contribution.