

Academics' Perceptions of Electronic Resources at the University of Venda, South Africa

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ABSTRACT

This study examined the perceptions of academic researchers regarding electronic resources (e-resources) provided by the library at the University of Venda (UNIVEN), South Africa. The quantitative research approach and survey research design were adopted to conduct the investigation. Data was collected using a self-administered structured questionnaire randomly distributed to 45 UNIVEN academics. The findings of this study revealed that although academics at UNIVEN find e-resources easy to use, believe the resources improve academic performance, and frequently encouraged postgraduate students to use them, the majority of them had plagiarism concerns and were only moderately satisfied with available e-resources at UNIVEN. This study recommends that the university library should train academics on plagiarism detection. In addition, the library should adopt innovative ways of improving e-resource services, such as providing an Online Public Access Catalogue (OPAC) with advanced and federated search capabilities.

Keywords: Academics; Electronic databases; Electronic resources; Search engine; University of Venda

1. INTRODUCTION

Electronic resources (e-resources) refer to information resources that are electronically accessed, for example electronic journals (e-journals), electronic books (e-books), and internet search engines¹. E-resources are important in the provision of efficient and up-to-date information services. The rapidly increasing accessibility of e-resources prompts different perceptions among the information users. It has been noted that e-resources have addressed challenges in accessing information, because they provide instant access to information for everyone in modern society².

Examining the academics' perceptions regarding the available e-resources at the University of Venda (UNIVEN) was significant because of the geographical location of the university and the money spent by the university towards e-resource subscriptions. South African universities spend lots of money on e-resource subscriptions and those located in rural areas even more so, as the cost of internet access is higher than in urban areas³⁻⁴.

UNIVEN is one of the historically Black universities in South Africa (SA) based in a rural area and was established to serve Black people⁵. In a South African context, rural-based universities were established by the apartheid government to serve ethnic groups such as Sesotho, Setswana, Tshivenda, isiXhosa, and isiZulu speaking people⁴. After the collapse of the apartheid government, some of the historically disadvantaged

universities were incorporated into or merged with historically White universities. These multiracial universities, with students predominantly from the middle class, are better equipped and better staffed than those that were not merged, like UNIVEN. The other universities still face the same problems they once experienced as historically disadvantaged universities⁶. The term rural-based university has been used by various studies conducted in the SA higher education context⁷.

Little is known about the use of e-resources by academics in rural-based universities such as UNIVEN. Socio-economic factors such as race, employment status, income, geographical location, education, the high cost of electricity, and poor network connections may hinder academics and students' ability to effectively use computers and other internet-based resources.

This study therefore investigates the academics' perceptions regarding the available e-resources at UNIVEN. Specifically, the study investigates usage of e-resources by the academics; depicts the frequency with which they are being accessed; determines satisfaction with available e-resources; and examines how useful the academics consider these e-resources to be.

2. METHODOLOGY

The researchers used the quantitative approach and adopted a survey research design to carry out the investigation. The targeted population for this study was academic staff employed at UNIVEN. At the time of the study, namely June 2016, the total number of academic staff at UNIVEN was

375⁸. Stratified random sampling was utilised to ensure that all categories of academics were included in the sample. Using stratified random sampling, the population was divided into strata based on their academic ranks⁹. The sample size for this study was determined using a sample size determination table¹⁰. Using the sampling table guidelines, the study opted for 12 per cent (45) of the population as the sample size. As pointed out by Kumar¹¹, a sample size of more than 10 per cent is generally acceptable and considered to be adequate.

The data was collected from UNIVEN academics using a structured questionnaire. A total of 45 questionnaires were personally distributed by the researcher to 4 strata, comprising 10 professors, 12 senior lecturers, 19 lecturers, and 4 junior lecturers. The response rate was 100 per cent. To collaborate findings from the academics, the study conducted an interview with UNIVEN library's director regarding e-resource training, usage, and user consultation before acquiring e-resources. In addition, the study employed document reviews to collect more information about UNIVEN's library catalogue and other e-resources.

The quantitative data derived from the questionnaire was analysed using SPSS software, while content analysis was used to analyse data from the interview. The study used descriptive statistics to explore and summarise the characteristics of a data and observations that have been made, while chi-square was used for testing relationships between variables.

Table 1. Background information of the academics (n=45)

Gender (N=45)	Frequency	Percent
Female	15	37
Male	30	67
Age (N=45) (Years)		
21-30	8	18
31-40	12	27
41-50	11	24
51-60	10	22
Above 60	4	9
Academic position (N=45)		
Junior lecturers	4	9
Lecturers	19	42
Senior lecturers	12	27
Professors	10	22
Academic fields (N = 45)		
Agricultural Sciences	4	9
Education	8	18
Environmental Sciences	5	11
Health Sciences	7	16
Social Sciences	5	11
Law	3	7
Management Sciences	7	16
Natural Sciences	6	13

3. SURVEY BACKGROUND OF POPULATION

Table 1 shows the characteristics of the respondents, including age, gender, academic rank, and area of specialisation. According to Table 1 male was the dominant gender at 67 per cent (30 individuals). Lecturer was the most occupied academic position (42 % or 19 individuals). Studies opine that demographic factors such as age, gender, discipline, and technological skills may determine the perception and use of e-resources¹². Chi-square test was conducted to find out if there was a relationship between age, gender, and use of e-resources. The p-value showed the relationship between the variables was not statistically significant. A study by Mwantimwa and Elia¹³ also depicts no statistically significant relationship between gender and use of e-resources in Tanzanian Universities. These findings, however, contrast with other studies¹⁴ which revealed a statistical difference between gender and usage of e-resources.

4. RESULTS AND DISCUSSION

4.1 Use of E-resources

The academics were asked if they have used the e-resources provided on the library website. The results show that the majority (84 % or 38 individuals) have accessed and used e-databases from the library website. The findings of this study were supported by the library director, who stated that “there has been substantial growth in the use of e-resources, but there is potential for more growth”. Moreover, this study showed that the majority of the academics were aware of the e-database page on the library website. The library director's view concurred with other similar studies done in Tanzania¹⁵ and India¹⁶ that reported a big improvement in the use of e-resources in universities. In addition, Adeyinka¹⁷ and Ram and Karn¹⁸ reported that the usage of e-resources in universities is increasing, although some of the academic communities are still used to print resources.

4.1.1 Frequency of Accessing E-resources

The academics at UNIVEN were asked to indicate the frequency with which the following e-resources were accessed: Online Public Access Catalogue (OPAC), e-books, e-journals, e-magazines, e-newspapers, e-theses, and Google search engines. The majority (89 % or 40 individuals) often access internet search engines, such as Google, to search for information. Echoing these findings, Ankrah and Atuase¹⁹ state that search engines and Google scholar were more frequently accessed than other e-resources at the University of Cape Coast. A similar trend was reported by Leung, Xie, Geng and Pun²⁰, as well as Van Dijk²¹, who confirm that internet search engines such as Google were preferred by the academics over the library e-resources. The current study revealed that only 22 per cent of the respondents used the OPAC regularly. Low usage of the OPAC in libraries, including the UNIVEN library, is partly attributed to the complex search interfaces that most OPACs have, lack of integration of a single point of search for both print and e-resources within the OPAC, and changing user expectations, which favour advanced search engines with sophisticated search capabilities and functionalities. To revise

this trend, libraries need to modernise their OPACs and make them more appealing to tech savvy users.

E-journals proved to be the second most popular e-resource at UNIVEN (73 % or 33 individuals). Another study²² shows that e-journals are the most frequently accessed e-resources by the academics. This implies that the usage of e-journals by UNIVEN academics is similar to other universities. Despite this, UNIVEN has subscribed to PressReader, which enables the UNIVEN community to access more than 1000 titles of e-magazines and e-newspapers. This study notes that e-magazines and e-newspapers were among the least accessed e-resources by academics (18 % or 8 individuals). Information on frequency of use of e-resources is important for optimising e-resource budgets and the utilisation of these resources in libraries.

4.2 Satisfaction on Users' Level

The study investigated how satisfied the academics were with the e-resources provided by the library. The following criteria were used to measure their level of satisfaction: ease of access, user-friendliness of the interfaces, ease of use, preferred mode of access, usefulness of e-resources, and encouraging students to use e-resources.

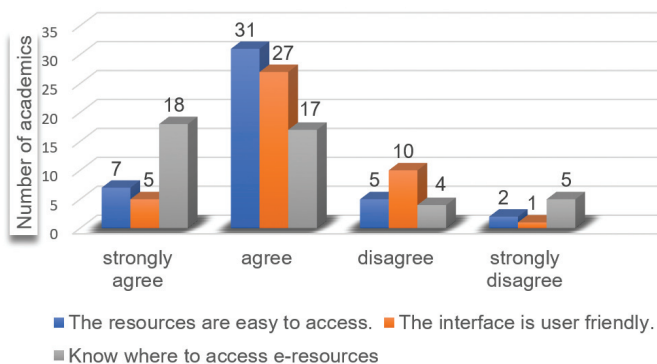


Figure 1. Ease of access and user-friendliness.

4.2.1 Ease of Access and User-friendliness

Figure 1 is a summary of the perceptions the academics have on the accessibility of e-resources at UNIVEN. When asked if the e-resources were easy to access, 7 academics (16 %) strongly agreed and 31 (69 %) agreed with the statement. When asked if the interface is user-friendly, 5 academics (12 %) strongly agreed and 27 (63 %) agreed with the statement. In addition, Fig. 1 shows that 18 (41 %) and 17 (39 %) academics respectively strongly agreed and agree that they know where to access e-resources. Other studies show that e-resources are used because of their availability; easier searching capability; and linkage to additional information²³. This indicates that the ease of access to available e-resources could influence the perceptions of the users towards access and use of e-resources.

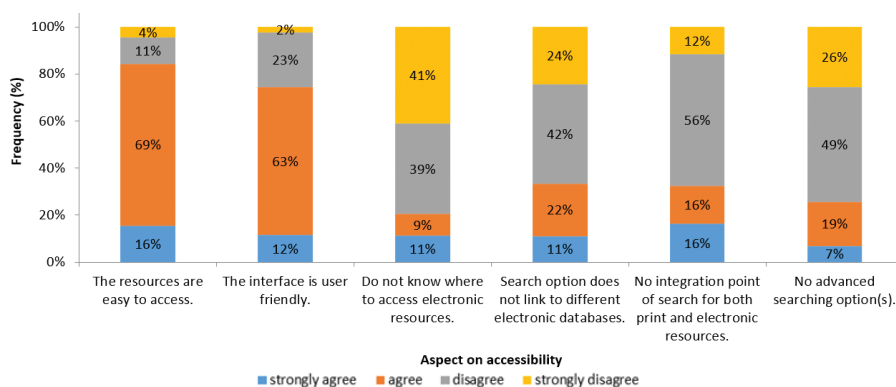


Figure 2. Ease of use of e-resources (N=45).

4.2.2 Ease of Use

As the findings in Fig. 2 show, the majority (69 %) of the academics at UNIVEN agreed that it is easy to access the available e-resources and 63 per cent felt that the available e-resources are easy to use. This finding portrays positive perceptions towards use of e-resources by these academics. In addition, this finding concurs with studies that note that ease of use is significantly associated with the usage behaviour of the users²⁴. Ease of use could increase the utilisation of the e-resources among the academics at UNIVEN.

4.2.3 Preferred Mode of Access

The academics were asked how they preferred to access e-resources and to provide reasons for their preferences, as portrayed in Fig. 3. The findings of this study show that most of the academics, namely 34 (67 %), prefer accessing e-resources on their own, citing convenience, time, independency, and the opportunity to explore as their main reasons for their preference. Akuffo and Budu²⁵ mention benefits relating to time saving and using e-resources at their own convenience as some of the preferences related to using e-resources.

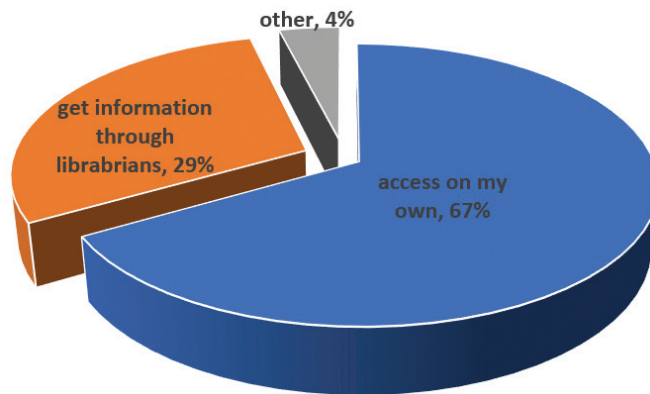


Figure 3. Preference for accessing e-resources.

However, Fig. 3 further indicates that 15 of the academics (29 %) prefer getting information through the librarians. Some academics prefer that librarians search for information on their behalf²⁶. It is therefore important that librarians ensure that library users know how to use and access e-resources.

The findings revealed that academics were not fully satisfied with the available e-resources. Table 2 indicates that only 2 of the academics (4 %) were extremely satisfied

Table 2. Satisfaction with the available e-resources (N=45)

	Level of satisfaction with e-resources (%)
Not at all satisfied	4
Slightly satisfied	4
Moderately satisfied	53
Very satisfied	33
Extremely satisfied	4
Total	100

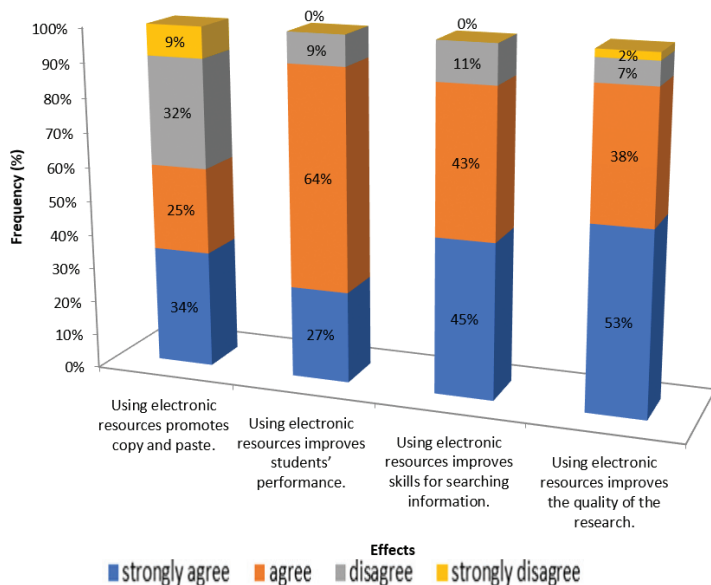


Figure 4. Usefulness of e-resources (N=45).

with the e-resources available. In addition, more than half of the academics, namely 24 (53 %), were moderately satisfied with the e-resources available. Similar findings were reported at Banaras Hindu University²⁷, where the majority of the academics were moderately satisfied with the available e-resources. Ensuring satisfaction for the users of e-resources is an important step towards improving the utilisation of the resources. The library should strive to ensure that the resources they provide satisfy the needs of their users.

4.2.4 Usefulness of E-resources

Figure 4 summarises the data on the perceptions of the academics regarding the usefulness of e-resources. As per Fig. 4, the majority (64% or 29 individuals) affirm that using e-resources improves students' performance. Likewise, slightly more than half of the academics, namely 24 (53 %), believe that using e-resources improves the quality of the research. Another study³⁰ has shown that access to current and quality information, and the speed of the availability of e-resources, improved the quality of academic work. In addition, "[u]se of e-resources increased productivity of work, learning, teaching and research"³¹.

However, Fig. 4 also shows that some (34 %) of the academics still believe that the use of e-resources promotes

the 'copy and paste' of information. Noreh³⁰, Jones,³¹ and Singh and Remenyi³² all opine that the use of e-resources may promote plagiarism, because it is easier to copy and paste text when using e-resources than when using print resources. However, copy and pasted text could be detected if academics use plagiarism detection tools to analyse the document³³.

When academics were asked if they encouraged students to use e-resources for academic purposes, an overwhelming 43 academics (96 %) affirmed that they encourage students to use the e-resources for academic purposes, because they consider them to be useful.

5. CONCLUSIONS

Despite the geographical location of the university and its historical categorisation as a Black university, academics at UNIVEN had a positive perception of the use of e-resources; they are actively using e-resources and encouraging postgraduate students to do the same. However, some of the academics believe that the use of e-resources promotes plagiarism. Furthermore, most of the academics were not extremely satisfied with the availability and usefulness of the available e-resources. Based on the findings, the study concludes that consultation with academics before purchasing or subscribing to e-resources could go a long way towards improving the perceptions academics have regarding the available resources.

It is recommended that the university library ensures that all academics are knowledgeable about plagiarism and trained on how to detect it. In addition, students should be trained on academic writing as a strategy to tackle concerns about plagiarism. The library should improve its service on the provision of e-resources to ensure academics are satisfied with the availability and usefulness of the available e-resources. In addition, the library should adopt innovative ways of improving their e-resource services, such as providing an OPAC with advanced and federated search capabilities, so as to meet the academic needs of their clients.

REFERENCES

1. Kenchakkanavar, A. Types of e-resources and its utilities in library. *Int. J. Inf. Sources Serv.*, 2014, **1**, 97-104.
2. Bhat, I. & Mudhol, M.V. Use of e-resources by faculty members and students of Sher-E-Kashmir Institute of Medical Science (SKIMS). *DESIDOC J. Libr. Inf. Technol.*, 2014, **34**(1), 28-34.
3. Schneir, J.R. & Xiong, Y. A cost study of fixed broadband access networks for rural areas. *Telecommunications Policy*, 2016, **40**(8), 755-773.
4. Whitacre, B.E. The diffusion of internet technologies to rural communities: A portrait of broadband supply and demand. *Am. Behav. Sci.*, 2010, **53**(9), 1283-1303.
5. Edwards, S.D. The role of rural universities in developing psychology in South Africa. *South African J. Psychol.*, 2015, **45**(1), 50-59.
6. Morrow, S. Race, redress and historically black universities. In *Racial Redress and Citizenship in South Africa* Habib, edited by A Habib and K Bentley. HSRC Press, Cape Town, 2008, 263-288. <http://hdl.handle.net/20.500.11910/5397> (Accessed: 17 November 2017).
7. Makura, A.; Skead, M. & Nhundu, K. Academic

- development practices at Fort Hare University: An epitome of university access. *Res. Higher Educ. J.*, 2011, **12**, 1–16
8. UNIVEN. Department of Institutional Planning and Quality Assurance. 2016. <https://www.univen.ac.za/ipqa/> (Accessed on 15 July 2015).
 9. Creswell, J.W. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 4th ed. SAGE, London, 2014
 10. De Vos, A.S., Strydom, H., Fouché, C.B. & Delpont, C.S.L. *Research at Grass Roots: for the Social Sciences and Human Service Professions*, 4th ed. Van Schaik, Pretoria, 2011.
 11. Kumar, R. *Research Methodology: A step-by-step guide for beginners*, 4th ed. SAGE, London, 2014.
 12. Ani, O.E.; Ngulube, P. & Onyancha, B. Perceived effect of accessibility and utilisation of electronic information resources on productivity of academic staff in selected Nigerian Universities. *SAGE Open*, 2015, 1–7.
 13. Mwantimwa, K. & Elia, E. Utilisation of e-resources to support teaching and research in higher learning institutions, Tanzania. *University of Dar es Salaam Libr. J.*, 2017, **12**(2), 98–123.
 14. Bassi, M.D. & Camble, E. Gender differences in use of electronic resources in University Libraries of Adamawa State, Nigeria. *Libr. Philos. Pract.*, 2011, **549**.
 15. Dule, F.W. Online information resources availability and accessibility: A developing countries' scenario. *African J. Libr., Archives Inf. Sci.*, 2015, **25**(1), 45–57.
 16. Patel, Y. Increasing usage of e-resources in college libraries. 2015. <http://www.alibnet.org/public/bookofpaper/33.pdf> (Accessed: 19 August 2017).
 17. Adeyinka, S.H. Emergence of electronic library resources: A threat to librarians? *Int. J. Libr. Inf. Sci.*, 2011, **3**(2), 29–33.
 18. Ram, B. & Karn, B. Study of U.G.C. Infonet E-Resources Consortia in Universities of Eastern India. *Int. J. Comput. Sci. Inf. Technol.*, 2014, **5**(6), 7977–7983.
 19. Ankrah, E. & Atuase, D. The use of electronic resources postgraduate students of the University of Cape Coast. *Libr. Philos. Pract.*, 2018, **1632**, 1-37.
 20. Leung B.T.H., Xie, J.; Geng, L. & Pun, P.N.I. *Transferring Information Literacy Practices*. Springer Singapore, Singapore, 2019.
 21. Van Dijck, J. Search engines and the production of academic knowledge. *Int. J. Cult. Stud.*, 2010, **13**(6), 574–592.
 22. Borgohain, T. & Barman, N. Knowledge and use of e-resources by faculty and research students at the Dibrugarh University, Assam. *Informatics Studies*, 2016, **3**(3), 50–56.
 23. Amjad, A.; Ahmed, S. & Naeem, S.B. Use of electronic resources among research scholars in the Islamia University of Bahawalpur, Pakistan. *New Rev. Acad. Libr.*, 2013, **19**(3), 316–328.
 24. Kumar, R. Use of e-resources by the medical students of M.M. University, Ambala: A case study. *DESIDOC J. Libr. Inf. Technol.*, 2016, **36**(1), 10–16. doi: 10.14429/djlit.36.1.8959
 25. Akuffo, M.N. & Budu, S. Use of electronic resources by students in a premier postgraduate theological university in Ghana. *South African J. Inf. Manage.*, 2019, **21**(1), 1–9.
 26. Pham, H.T. & Tanner, K. Collaboration between academics and library staff: A structurationist perspective. *Australian Acad. Res. Libr.*, 2015, **46**(1), 2–18.
 27. Sonkar, S.K.; Singh, M.P. & Kumar, J. Use of electronic resources by post graduate students and research scholars of the Banaras Hindu University: A study. *J. Inf. Manage.*, 2014, **1**(2), 87–97.
 28. Akussah, M.; Asante, E. & Adu-Sarkodee, R. Impact of electronic resources and usage in academic libraries in Ghana: Evidence from Koforidua Polytechnic & All Nations University College, Ghana. *J. Educ. Pract.*, 2015, **6**(33), 33–38.
 29. Ivwigreghweta, O. & Oyeniran, K.G. Usage and awareness of e-resources by lecturers in two selected nigerian universities. *J. Libr. Inf. Sci.*, 2013, **3**(4), 761–774.
 30. Noreh, A. Impact of electronic resources on academic and research programs of the university. 2009. <http://erepository.uonbi.ac.ke/handle/11295/81374> (Accessed on 14 August 2017).
 31. Jones, D.L.R. Academic dishonesty: Are more students cheating? *Business Professional Commun. Q.*, 2011, **74**(2), 141–150.
 32. Singh, S. & Remenyi, D. Plagiarism and ghostwriting: The rise in academic misconduct. *South African J. Sci.*, 2016, **112**(5-6), 1–7.
 33. Ison, D.C. Does the online environment promote plagiarism? A comparative study of dissertations from Brick-and-Mortar versus Online Institutions. *MERLOT J. Online Learn. Teaching*, 2014, **10**(2):272–282.

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In this study he has contributed to the conception and design of the work, and the acquisition, analysis, and interpretation of data for the work.

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She has contributed to this study by critically revising the work, supervising the project, and providing critical feedback that helped shape the research.