



**Second-Year Social Science Students' Perceptions of Electronic Information
Resources at the University of Kwazulu-Natal**

by

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Declaration


I, **Joyfull Bongumusa Jalubane**, declare that:

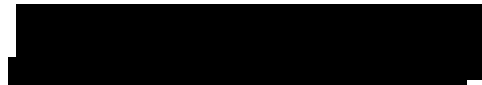
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Dedication

This dissertation is dedicated to my late grandmother Nomtelekiso ‘Teleza’ Jalubane and my late mother Nomzamo Jalubane for all the sacrifices and ‘*IMIZAMO*’ they made for me to be where I am today. Though you never got the chance to enjoy the fruits of your labour, I truly hope you are proud.

Mbomvu! Somahhashi!

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- Mr Sandile Mkhize – You would always say, “*ayiphele iMasters Jalubane*”. Thank you for the motivation.
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Abstract

This study was aimed at investigating the perceptions of second-year social science students about electronic information resources offered by the UKZN library. The study sought to establish the extent of use and perceptive factors that influence the use of electronic information resources.

The study was based on the Technology Acceptance Model (TAM) developed by Davis (1989). This study adopted a quantitative research approach as it is underpinned by a positivist worldview that has been adopted as an underpinning paradigm. Furthermore, this approach is consistent with the adopted descriptive research design, which allowed the researcher to generalise the findings of the study to a greater audience. This study's population was comprised of second-year students registered for the Bachelor of Social Science programme offered at the University of KwaZulu-Natal. This population was important to this study as it sought to uncover student perceptions based on their first-year experiences using electronic information resources. The study adopted probability sampling by specifically employing random sampling. The researcher randomly selected participants from the Howard College campus and Pietermaritzburg campus to make up the sample. The sample size was 310 randomly selected participants from both Howard College and Pietermaritzburg campuses. The sampled participants were surveyed using an online questionnaire made available via Google Forms. A staggering 295 students completed the survey, translating to an excellent 95% response rate. Descriptive data analysis was employed in line with the research paradigm underpinning this study and the research design as well as the approach adopted.

The findings revealed that (78.6%) of respondents utilised electronic information resources offered by the library. Furthermore, (34.1%) of respondents considered electronic information resources 'very much useful'. A notable (42.7%) of respondents indicated that they regarded electronic information resources as relatively easy to access. The findings also revealed that (34.1%) of respondents perceived electronic information resources as 'relatively easy to use'. Some of the challenges cited by the respondents include internet connection, printing-related problems, staff not always available to help, uncertainty as to which database to use and password requirements.

Recommendations based on the significant findings and conclusions were made, which involved the library's need to conduct targeted user education programmes. These programmes should

address specific challenges that have been identified instead of having a blanket approach to training. Moreover, there should be strong communication channels for students to interact with library personnel when they encounter problems and need assistance, especially when they cannot be physically in the library. Suggestions for further research were also given.

Keywords: Perception; Perceived Ease of Use; Perceived Ease of Usefulness; Perceived Ease of Access; Electronic Information Resources

Table of Contents

Declaration.....	i
Dedication.....	ii
Acknowledgements.....	iii
Abstract.....	iv
List of Figures.....	ix
List of acronyms.....	x
Chapter One: Introduction and Background.....	1
1.1. Introduction.....	1
1.2. Background to the Study.....	1
1.3. Problem Statement.....	3
1.4. Aim of the study.....	4
1.5. Objectives of the study.....	4
1.6. Key Research Questions.....	5
1.7. Scope and Delimitations.....	5
1.8. Significance of the study.....	5
1.9. Theoretical Framework.....	5
1.10. Definition of key terms of the study.....	7
1.11. Structure of the study.....	7
1.12. Summary of the chapter.....	8
Chapter Two: Literature Review.....	9
2.1. Introduction.....	9
2.2. An Overview of Electronic Information Resources.....	9
2.2.1. Electronic Journals (E-Journals).....	10
2.2.2. Electronic Books (E-Books).....	10
2.2.3. Online Databases.....	11
2.2.4. Online Public Access Catalogue (OPAC).....	12
2.3. The use of electronic information resources by students.....	13
2.4. The Role of the library in promoting the use of electronic information resources.....	14
2.4.1. User Education and Training.....	14
2.4.2 Information Literacy Programmes.....	15
2.5. The importance and benefits of electronic information resources in higher education.....	16
2.6. Determinants of use of electronic resources.....	17

2.6.1. Perception	18
2.6.2. Awareness	21
2.7. Hindrances to the use of electronic resources	22
2.7.1. The digital divide	23
2.7.2. Inadequate Digital Literacy Skills.....	24
2.8. Appraisal of the literature	25
2.9. Chapter Summary	26
Chapter Three: Research Methodology	27
3.1. Introduction.....	27
3.2. Research Paradigms	27
3.3. Research Design.....	28
3.4. Research Approach	28
3.5. Population	29
3.6. Sampling Technique	29
3.7. Sample Size.....	30
3.8. Research Instrument.....	30
3.9. Reliability and Validity	31
3.10. Data Analysis	31
3.11. Ethical Considerations	32
3.12. Chapter Summary	32
Chapter Four: Presentation of Results	33
4.1. Introduction.....	33
4.2. Findings and discussion of results	33
4.2.1. Section A: Demographic	33
4.2.2. Section B: The use of the library	36
4.3. Chapter Summary	50
Chapter Five: Discussion and Interpretation of Results.....	51
5.1. Introduction.....	51
5.2. Demographic profile of respondents.....	51
5.3. Students' level of awareness of electronic information resources	52
5.4. Students' level of use of electronic information resources	53
5.5. Students' level of satisfaction with electronic information resources.....	53
5.6. Challenges experienced by the students when using electronic information resources.....	54
5.7. Student perceptions towards electronic information resources.....	56

5.8. Chapter Summary	58
Chapter Six: Conclusions and Recommendations	59
6.1. Introduction.....	59
6.2. Summary of the study	59
6.3. Summary of findings.....	60
6.3.1. Students' level of awareness of electronic information resources	60
6.3.2. Students' level of use of electronic information resources	61
6.3.3 Students' level of satisfaction with electronic information resources.....	62
6.3.4. Challenges experienced by the students when using electronic information resources.....	63
6.3.5. To determine student perceptions towards electronic information resources	64
6.4. Conclusions.....	65
6.5. Recommendations.....	66
6.6. Suggestions for further research	67
6.7. Summary of the chapter	67
Appendices.....	93
Appendix 1: Gatekeepers Letter	93
Appendix 2: Ethical Clearance Certificate.....	94
Appendix 3: Consent Form	95
Appendix 4: Declaration Form	96
Appendix 5: Questionnaire	97

List of Figures

Figure 1.1: Technology Acceptance Model.....	7
Figure 3.1: Sample Determining Table	30
Figure 4.1: Gender Distribution.....	33
Figure 4.2: Age of Respondents.....	34
Figure 4.3: Campus of student.....	35
Figure 4.4: Frequency of visits to the library.....	36
Figure 4.5: The use of electronic information resources.....	36
Figure 4.6: Reasons for not using e-resources.....	37
Figure 4.7: Frequency of usage.....	38
Figure 4.8: Level of importance of each e-resource.....	39
Figure 4.9: Benefits of using electronic information resources.....	39
Figure 4.10: Main problems encountered when using electronic information resources.....	40
Figure 4.11: Different access points for electronic Information resources.....	41
Figure 4.12: Attendance of library user education programmes.....	42
Figure 4.13: Finding out about electronic information resources.....	43
Figure 4.14: Skills to access electronic information resources.....	43
Figure 4.15: Difficulties experienced when accessing electronic information resources.....	44
Figure 4.16: Level of skills with electronic information resources.....	45
Figure 4.17: Identification of relevant electronic articles.....	46
Figure 4.18: The extent of usefulness of electronic information resources.....	47
Figure 4.19: Ease of access to electronic information resources.....	48
Figure 4.20: Ease of use of electronic information resources.....	48

List of acronyms

CD-ROMs	Compact Disc Read-Only Memory
COVID-19	Coronavirus Disease
DL	Digital Literacy
E-Book	Electronic Book
E-Catalogues	Electronic Catalogues
E-Databases	Electronic Databases
EIR	Electronic Information Resources
E-Journal	Electronic Journal
ICT	Information and Communication Technology
LibGuides	Library Guides
OPAC	Online Public Catalogue
PMB	Pietermaritzburg
TAM	Technology Acceptance Model
UKZN	University of KwaZulu-Natal
UTAUT	Unified Theory of Acceptance and Use of Technology
Wi-Fi	Wireless Fidelity

Chapter One: Introduction and Background

1.1. Introduction

The proliferation of Information and Communication Technology (ICT) has altered how students access and use information resources. Consequently, electronic information resources have become a key constituent of the resources available to students, as echoed by Somers (2015:1) “Many academic libraries have used technology to enhance and improve access of scholarly information by bringing in significant development of electronic information.” Hamutumwa (2014) opines that academic libraries, in particular, are embracing ICTs and charting a new way towards electronic resources for easy remote access to information by students. E-books, e-journals, e-databases, web resources, and e-serials are some of the resources that are easily accessible in remote areas. Moreover, the advent of the COVID-19 pandemic has also resulted in a huge paradigm shift in terms of access, use, storage, and dissemination of information. In light of this paradigm shift, University of KwaZulu-Natal (UKZN) libraries saw it necessary to increase access and utilisation of electronic information resources to support the student learning journey when students could not physically visit the library. UKZN Libraries offer access to numerous information resources via various access points on the library homepage.

1.2. Background to the Study

The general assumption is that students prefer and know how to use electronic resources when faced with an information need. However, the reality is that students come from different educational backgrounds; some may have yet to be exposed to ICTs for research purposes. A study by Koohang (2004) on student perceptions concerning the use of the digital library in weekly web-based distance learning assignments portion of a hybrid programme revealed that students with prior experience with the Internet had favourable perceptions towards utilising electronic resources. Tamaro (2008), in her study about users' perceptions regarding digital libraries, revealed that students had a positive attitude regarding electronic information resources, but they usually do not know how to use these resources. Psychologists have largely argued that perception influences human behaviour (Clark, Roberts and Hampton, 2015). Based on this premise, a conclusion can then be drawn to suggest that student perceptions about a resource can influence

the utilisation or lack thereof. Matusiak (2012) posits that the inadequate use of electronic resources for learning is related to perceived usefulness and ease of use.

Many studies have been conducted globally on using electronic information resources within academic institutions. Most of the studies on the perception and use of electronic resources (Tahir, Mahmood and Shafique, 2008; Akpojoto, 2016; Akuffo and Budu, 2019; Tao, 2008; Adetunla, 2016; Sanz-Labrador, Cuerdo-Mir and Doncel-Pedrerá, 2021; Alabdulwahhab, Kazmi, Sami, Almujael and Alanazi, 2021) were based in West African and Asian universities respectively. These studies revealed that there is a correlation between student perception and the use of electronic information resources. At the University of KwaZulu-Natal, studies focused more on the extent of use, preference, access, and barriers (Somers, 2015; Eyaufe, 2018).

This study investigates second-year social science students' perceptions of electronic information resources at the University of KwaZulu-Natal. Having been exposed to and used some of these resources in their first year, how do students perceive electronic information resources? The study focuses on second-year students' perceptions based on their first-year experiences. This will provide a backdrop to devise measures to mitigate any challenges and contributors to the underutilisation of electronic resources. Moreover, this will allow for early implementation of mitigating measures to encourage the use of electronic resources and to respond to the challenges faced by second-year students in their first year of study. The outcome of this investigation will be useful not only to second-year students but to future first-year students as well. Though there have been similar studies done on the use of electronic resources (Roman, Trobada, Gatón and Gania, 2020; Frimpong and Addo, 2020; Matusiak, 2012; Kumar and Kumar, 2010; Mawindo, 2005), most of these studies were done before COVID-19 and on the first year of the pandemic. Electronic resources were less prevalent since students had access to physical materials.

Hamutumwa (2014) revealed that experience, usefulness, ease of use, peers and other external factors influenced perceptions towards the utilisation of electronic information resources. Given the current academic climate, it is therefore important to understand the view of students on the different electronic information resources concerning their studies. They further opine that institutions have to understand the perceptions of students regarding electronic resources to

successfully accomplish their mission of arming students with appropriate and modern knowledge and skills.

1.3. Problem Statement

Over the years, traditional libraries have had to redesign their product offerings to cater for a much broader audience with varying format preferences. Through this process, libraries introduced electronic versions of some of the materials in their physical collections. In addition, many more materials were born-digital. This meant that students and academics were spoilt for choice regarding material formats. However, the hard lockdown implemented in 2020 as a means to curb the spread of COVID-19 resulted in the suspension of physical visits to most libraries and made electronic information resources the only option for students. The use of electronic resources is not without problems. As revealed by Matusiak (2012), the limited use of electronic resources is largely based on perception, citing user-friendliness and ease of use as major perceptive factors. This means that students who have had a bad experience while using an electronic resource are not likely to use that resource again. Factors such as the usefulness of the resource also contribute incredibly to the utilisation of electronic resources. Difficulty in finding appropriate information to satisfy users' needs contributes to the underutilisation of e-resources (Omeluzor, Akibu and Akinwoye, 2016; Bankole and Nasir, 2020). Electronic resources offered by the library contain good-quality scholarly information that can be used to complete assignments. This study focuses on second-year students because it is presumed that second-year students will have a certain level of awareness and have partially used some of the electronic resources offered by the institution. Furthermore, the focus on second-year students is motivated by the need to understand the challenges they encountered in their first year of study. This will assist in identifying the need for awareness and training initiatives to change perceptions and improve electronic resource utilisation.

Literature shows that studies have been done on students' perceptions and use of electronic resources. However, most of these studies were largely based in American, Western African, and Asian contexts (Daramola, 2016; Hoq and Haque, 2018; Alabdulwahhab, et al., 2021). The common theme in the findings of these studies is the lack of awareness and challenges, such as not knowing how to use the resources. It is suggested in the findings of these studies that the challenges

have a negative impact on the perceptions of students. In South Africa, a few studies have highlighted the state of electronic resource utilisation. Tlakula and Fombad (2017), in their study of electronic resource utilisation by undergraduate students at the University of Venda, found that the level of awareness was very low and that the use of electronic resources was very elementary. Olatoye, Nekhwevha and Muchaonyerwa (2020) looked at the determinants of undergraduate student attitudes and perceptions towards the use of electronic resources at selected universities in Eastern Cape, South Africa. The study revealed that the attitudes and perception of the respondents negatively affected their utilisation of the e-resources as they did not see any need to utilise electronic resources like e-journals, CD-ROMs, and e-books. Though there have been studies done in the South African context, the literature shows an inadequacy in studies done at the University of KwaZulu-Natal.

Moreover, no study has been done at the University of KwaZulu-Natal on second-year social science students. Therefore, this study seeks to bring to light the experiences of second-year students at the University of KwaZulu-Natal. Moreover, this study investigates problems and recommends ways in which student perceptions could possibly be improved and, eventually the utilisation of electronic information resources.

1.4. Aim of the study

This study is aimed at investigating the perceptions of second-year social science students about electronic information resources offered by the UKZN library. The study seeks to establish the extent of use and perceptive factors that influence the use of electronic information resources.

1.5. Objectives of the study

- I. To determine students' level of awareness of electronic information resources.
- II. To establish the students' extent of use of electronic information resources.
- III. To evaluate students' level of satisfaction with electronic information resources.
- IV. To determine the challenges experienced by the students when using electronic information resources.
- V. To determine student perceptions towards electronic information resources.

1.6. Key Research Questions

- I. What are the students' levels of awareness of electronic information resources?
- II. To what extent do students use electronic information resources?
- III. How satisfied are students with electronic information resources?
- IV. What challenges do students experience when using electronic information resources?
- V. How do students perceive electronic information resources?

1.7. Scope and Delimitations

The study sought to examine the perceptions and use of electronic information resources by second-year social science students at the University of KwaZulu-Natal. The study only focused on second-year students because it was assumed that they have a certain level of awareness and have used some of the electronic information resources offered by the library. Moreover, the study focused on second-year students to the exclusion of other levels because it sought to understand students' perceptions based on their first-year experiences.

1.8. Significance of the study

This study will be of significance to students, library management and staff in understanding the impact of perception in the utilisation of electronic resources. Studying perceptions will reveal the factors contributing to the underutilisation of electronic resources. Moreover, the study will help provide insights into students' difficulties when using electronic resources. This will enable library management to devise strategies to mitigate the challenges faced by students. This study will also inform library policy to guide programmes that will encourage the utilisation of library resources. The study is significant to the students since the strategies will ensure their challenges are responded to. Lastly, the study will contribute to the body of knowledge, the ongoing discourse on perceptions, and the use of electronic resources.

1.9. Theoretical Framework

This study was based on the Technology Acceptance Model (TAM) developed by Davis (1989). The model's foundational reasoning was that in the context of the use of technology, the behavioural intention was not moulded by a general attitude toward behavioural intention but by

specific beliefs related to the utilisation of technology (Marikyan and Papagiannidis, n.d). The model assumes that the user's willingness to use technology depends on whether or not the user perceives it to be useful and easy to use (Ajibade, 2018). The major constructs of the model (perceived usefulness and perceived ease of use) provide a foundation for studying the link between perceptions of use and the actual use of electronic information resources.

TAM has the capability to forecast and explicate causes of the utilisation and underutilisation of electronic resources based on patron experiences. Moreover, the model is premised on the fact that perception is a by-product of influential external variables. The TAM model has been employed entirely in educational settings to establish the actual utilisation of information technology in institutions of higher learning (Adetunla, 2016). It is, therefore, evident that the strength of the TAM lies in its comprehensiveness. The model has been widely used in studies of the use of electronic information resources within university settings. Akuffo and Budu (2019) adopted the model in their research on the use of the utilisation of e-resources by postgraduate students in a theological university in Ghana. Tao (2008) used the model in a study on students' intention to use electronic resources. Adeoye and Olanrewaju (2019) employed the TAM model to evaluate the use of library e-resources by postgraduate students at the Lead University in Nigeria. Therefore, in this study the TAM was adopted to provide a theoretical base for understanding the extent to which the perceptions of second-year social science students about electronic information resources offered by the UKZN library influenced the use and non-use of the resources. The model was adopted based on its emphasis on user perception being a key determinant to the use of a technonlogical innovation.

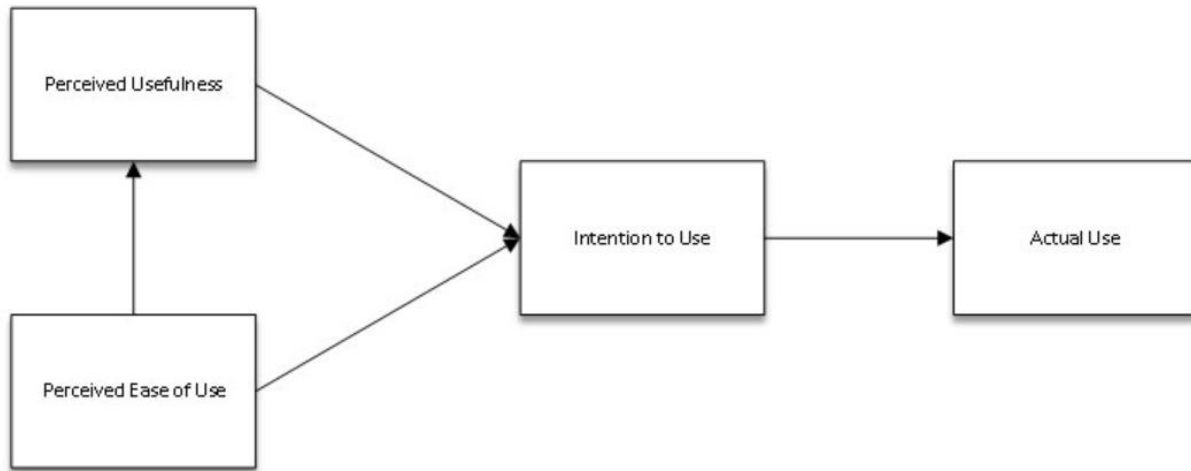


Figure 1.1: Technology Acceptance Model: Source: Davis (1989)

1.10. Definition of key terms of the study

Perception: McDonald (2012) posits that perception is about how a person views their environment. The author goes on to say that perception is an entirely personal experience, and that one can only base on what they know.

Perceived usefulness: Davis (1989) has defined perceived usefulness as the extent to which a person believes that adopting a particular system will improve their job performance. He went on to define perceived ease of use as the extent to which a user believes utilizing a particular technology will be hassle-free.

Perceived ease of use: Akpojotor (2017: 63) defines this concept as “the degree to which a particular technology is less stressful to use.”

Second-year students: in the context of this study, these are the students who are registered for their second year of study.

1.11. Structure of the study

The dissertation comprises Six chapters as follows:

Chapter One: This chapter comprised the introduction, background to the study, problem statement, aims, research objectives and research questions, scope and delimitations, broader issues investigated, and the significance of the study. The chapter also briefly outlined the theoretical framework and research methodology adopted. The chapter ended with a chapter summary.

Chapter Two: This chapter reviews empirical research around the use of electronic information resources in higher education. The chapter also unpacked the extent to which this topic has been studied, and the approaches used and the major findings of prior research.

Chapter Three: This chapter outlines the research methods adopted in this study. It covers the research paradigm, research approach, research design, the population of the study, sampling technique, data collection procedure, data analysis, validity and reliability of research instruments and ethical considerations.

Chapter Four: This chapter presents the actual findings of the study. It presents the findings of the research based on the research questions. Results of each question asked are presented in tables and figures, and each set of findings is discussed concerning the appropriate literature.

Chapter Five: This chapter presents a discussion of the findings in accordance with the literature reviewed. This chapter also indicates how the findings have addressed the research questions.

Chapter Six: This chapter presents the summary, conclusions, and recommendations. Moreover, it highlights the contribution of the study to theory, policy, and practice and will provide suggestions for further research.

1.12. Summary of the chapter

This chapter comprised the introduction, background to the study, problem statement, aim, research objectives and research questions, scope and delimitations, broader issues investigated, and the significance of the study. The chapter also discussed the theoretical framework and its relevance. The next chapter will discuss the literature reviewed in this study.

Chapter Two: Literature Review

2.1. Introduction

This chapter reviews the literature relevant to the perceptions and use of electronic information resources in academic libraries. The literature review will focus on the types of electronic information resources, the use of electronic resources by students, the role of the library in promoting electronic information resources, the impact of electronic information resources in higher education, determinants of use of electronic resources and hindrances to the use of electronic resources in higher education. Accordingly, this chapter looks at the extent to which various studies have investigated the use of electronic resources. This is done to prevent the reinvention of the wheel in terms of the research that has already been done on the topic.

2.2. An Overview of Electronic Information Resources

Technological changes have significantly changed how information is collected, accessed, stored, and disseminated. Such advances in information technology have also had an immense contribution to the enhancement of library services. This rapid advent and prevalence of information technologies provide a foundation to radically imagine unique approaches to organizing the collections and services the library has traditionally offered for a long time. (Akussah, Asante and Adu-Sarkodee, 2015). Ani, Ngulube and Onyacha (2015) posit that the proliferation of information technology in the library has resulted in the migration of information from print to electronic format. They further define information in electronic format as simply an electronic resource. Graham (2003), as cited by Edem and Egbe (2016), posits that the use of the term seems not to be consistent as it is interchanged for electronic information resources (EIR). In layperson's terms, EIRs are resources available in electronic format. However, scholars in the field of information science have offered variations of the definition of the term and unpacked it to determine all it encompasses. Iroaganachi and Izuagbe (2018) opine that EIRs are resources either converted to digital formats or created electronically from the onset and are available through electronic systems and networks. Similarly, Okunlola (2021:164) posit that "EIRs refer to electronically supported information materials subscribed to, licensed or housed in the library or print library materials in electronic formats."

In academic institutions, EIRs are mainly located and available in the library. However, modern technologies make it possible for these resources to be accessible from anywhere, provided that patrons have remote access credentials to access library systems miles away (Okunlola, 2018). In support, Jogan (2015) states that because of EIRs, academic libraries are no longer limited to just a building but are integrated into local, regional, national, and international networks. The following are the most frequently encountered types of e-resources:

2.2.1. Electronic Journals (E-Journals)

An electronic journal can be defined as a journal that is accessible online or offline, comprising research papers, review articles and scholarly communications, among others (Dhingra and Vasishta, 2007). Machimbidza and Mutula (2018) define e-journals as peer-reviewed periodicals offered by trustworthy publishers that publish novel, scholarly literature made accessible by remote means in electronic form. Journals, both print and electronic, present the reader with a collection of articles under a recognized title (Sejane, 2017). Electronic journals have been embraced by many university libraries and institutions of higher learning worldwide to support the activities of academics and students (Machimbidza and Mutula, 2020). Abouserie (2006) highlighted the features of e-journals as flows:

- They can be delivered to the desktop.
- E-journals allow remote access.
- They can be read by more than one person at a time.
- The text can be searched.
- They can include multimedia and graphics in colour at a marginal cost.
- They can be published more quickly than paper publications.
- They can be interactive; that is, they can foster an online exchange of ideas by e-mail.
- E-journals are easily searchable as they support different search capabilities.

2.2.2. Electronic Books (E-Books)

The use of e-books has become prevalent, with more study material available in e-books increasing rapidly (Fojtik, 2015). Though the argument was made long ago, the trajectory has continued to

this day. This is asserted by Faloye, Ajayi, Raghavjee and Faniran (2020), stating that e-books are steadily becoming the prevalent means of distributing educational information to students. Hence, they are becoming easy to access within most higher education institutions. The proliferation of e-books can be attributed to the fact that they offer unlimited access to information for many users simultaneously and additional functionality comprising searching, highlighting, and annotation of text (Turner and Chung, 2020). Ismail and Zainab (2005) refer to eBooks as simply text available in a digital format.

On the other hand, Okocha (2020) defines e-books as digital forms of print books that can be read across many digital platforms, such as digital computers and eBook readers. The use of eBooks as information resources for academic work has become a norm in academic institutions. This utilisation may be due to the benefits that come with eBooks, which include convenience, portability and 24/7 access, on which distance and part-time learning approaches are grounded (Casselden and Pears, 2020). Novak, Ohler and Day (2020) make a similar argument, stating that eBooks are more attractive to distant students, and many never physically visit library premises, let alone their campus. These arguments hold water considering that at the height of the pandemic, few students were able to go to their respective campuses, but because of access to electronic resources such as eBooks, academic work continued.

Kumbhar (2013) cited the following as being some of the features of eBooks:

- Capacity to store large amounts of information.
- Capacity to hold and display multimedia content.
- Anytime, anywhere accessibility.
- Facility to search contents from full text.
- Built-in dictionary facility.
- Facility to manipulate font size.

2.2.3. Online Databases

Online journals have become an integral part of libraries at higher education institutions (Kwadzo, 2015; Anane, 2016). Egbe and Elijah (2019:91) define an online database as “a database accessible from a local network or the Internet, as opposed to one that is stored locally on an individual

computer or its attached storage (such as a CD).” They further state that these databases are made available as digital platforms accessible via a web browser. An online database can also be defined as a collection of information sources in electronic form made available by published in different fields of study (Azubuike, Ekere and Orsu, 2021). Bothma, Cosijn, Fourie and Penzhorn (2014) state that some of these databases usually cover a wide range of information sources such as articles, books, conference proceedings, dissertations and theses reports. However, some databases cover one main subject, while others are multidisciplinary. This advent of online databases has enabled libraries within tertiary institutions to concentrate their efforts more on resources that make access to information cheaper, timely and, most importantly, easy to access and use (Iroaganachi and Izuagbe, 2019). Similar views have been shared by Naqvi (2012), who posited that online databases were becoming increasingly essential, and this was attributed to them being up-to-date, having remote accessibility, and having time-saving benefits when conducting research.

2.2.4. Online Public Access Catalogue (OPAC)

In simple terms, the OPAC is a catalogue that specifies all the resources available within the library. Umeaku and Aghauche (2016) define the OPAC as a catalogue of a library's holdings that is open and available to the public through the Internet. This view is consistent with Kumar and Bansal (2012:1), who described the OPAC as “an essential information retrieval tool to help academic library users to locate the library resources efficiently and effectively; it is a singular tool for accessing and properly utilizing a printed collection of a library. It is an entry point and a guided pathway to a library’s treasures.” Somers (2015) argues that web-based OPACs have great search facilities that enable patrons to do a basic search ranging from specific titles, authors or fields. In addition, this allows for a combined search with the author and title or a keyword appearing anywhere within the record. Kumar and Bansal (2012) state that an OPAC offers users many benefits, including online access to library holdings, the ability to search and retrieve sources, online reservations, and the ability to check the borrower's status.

However, OPACs are not without challenges. Mi and Weng (2008) opined that online search engines are displacing the OPACs of academic libraries, much like the once-dominant industry player Kodak has lost ground to digital photography. A study by Eserada and Okolo (2019) on the

use of an online public access catalogue (OPAC) in selected university libraries in South-South Nigeria revealed a low utilisation of the OPAC among students. Some reasons cited for underutilisation include unfamiliarity with the OPAC system and inability to use suitable search terms.

2.3. The use of electronic information resources by students

Incorporating electronic information resources into academic library holdings has brought about an array of materials to support the student's learning journey. Madondo, Sithole and Chisita (2017) posit that student utilisation of electronic resources increases when these resources are made available by the library at no cost to the student. This utilisation allows students to successfully retrieve online or digital information to aid the exploration of academic issues, problem-solving and decision-making and improve comprehension of the concepts being investigated (Song and Song, 2017). It is on this premise that Owolabi, Idowu, Okocha and Ogundare (2016) believe that the advent of electronic information resources has brought new opportunities for today's generation of students that the previous generations did not enjoy. Anyim (2021) argues that students use electronic information resources because of up-to-date information, comprehensive information from various sources, and quick and easy access to information.

A study by Adeleke and Makinde (2020) on the accessibility and use of electronic resources revealed that undergraduate students used electronic resources for academic purposes, with e-journals being the most utilised resource. This aligns with Merande, Mwai and Ogalo's (2021) study, which found that electronic resources were greatly used by students and were seen as crucial in improving student academic performance. Other scholars seem to validate the finding that e-journals are more popular among students when compared to other electronic resources. Gupta (2022) revealed that Online Databases were the most frequently used by a majority of 77.55% of respondents, whereas e-books were only frequently used by 52.5% of students. Furthermore, Msezane and Dlamini (2021) found that electronic books (e-books), electronic catalogues (e-catalogues), and CD-ROMs were rarely used, while students highly used e-databases and e-journals.

However, despite the fact that electronic information resources were being utilised for academic purposes, those are factors that affect the extent and level to which these resources are used by

students. Kimanga and Namande (2021), in their study about the utilisation of electronic resources by postgraduate students, found that insufficient library computers and unstable internet connectivity were impeding the use of electronic resources. Similarly, Anyim (2020) found that poor internet and inadequate functional computers were associated with students' underutilisation of electronic information resources. However, it is worth noting that in the past two years, access to these electronic resources was not through library computers but through students' own devices. It is on this premise that Mathope-Dasilva (2021) argue that though many students may be aware of electronic information resources, insufficient data to access the resources from home and lack of knowledge of appropriate databases to select contributes to low utilisation of the resources.

2.4. The Role of the library in promoting the use of electronic information resources

Modern-day libraries cannot prosper without the appropriate implementation of new technologies and electronic resources in their services (Moruwawon, 2020). The author further posits that integrating e-resources into the library's services cannot be overstressed as it is one of the key strategies to augment effective library services in this century. Bhat's (2009) study on increasing the discovery and use of e-resources in university libraries found that libraries subscribe to numerous electronic resources containing quality materials.

However, despite the benefits of electronic resources, they are still underutilised. Reasons most often advanced for not using the databases include lack of awareness, preference for other sources like general search engines such as Google, lack of search skill, lack of adequate ICT infrastructure, bad downloading time, and, at times, the sheer attitude of users (Kwadzo, 2015:2). Part of the problems facing librarians is what Navjyoti and Vasishta (2007) call a “change in the information habits and spiralling expectations of users.” As such, Leong (2008) believes that to promote electronic resources, librarians have to not only focus on promoting high levels of usage but also provide the best mix of resources to match the students' needs. Libraries can adopt other broader initiatives to enhance the use of electronic resources:

2.4.1. User Education and Training

The ever-changing technological landscape, coupled with the change in information needs, requires libraries to constantly impart the essential skills and attitudes to their patrons. Velmurugan

(2014) defines user education as instructions which arm library patrons with the abilities that allow them to be independent and sophisticated users of library resources. Sharma and Vermani (2016:53) posit that “in a networked environment, user education programme goes a step further. It refers to a programme specially designed to teach a group of users the skills needed to use e-resources/services.” The authors cite two aspects of user education in a networked environment: retrieval software/hardware and the creation of search queries to retrieve the needed information. Lalithamma (2017) argues that the main goal of user education is to turn the prospective user into an actual user. An academic library should raise student awareness of electronic resources, where to locate them and how to take advantage of what is available (Agyen-Gyasi, 2008). A study by Ajala and Adetimirin (2018) revealed that there is a significant correlation between user education and the use of electronic resources. These findings are consistent with Uwakwe, Onyeneke and Njoku’s (2016) findings, which revealed that user education programmes positively impacted students’ use of library resources and their academic performance. According to Adeleke and Olorunsola (2010:17), “it is one thing to make users aware of e-resources available in the library, whereas it is another to train the users on how to access such electronic resources. It is the only way academic libraries can help students learn and work in the digital environment.” They are of the view that because of the increase in the availability of electronic resources and the proliferation of the Internet, library user trainings are of paramount importance. The authors argue that user training on the use of electronic information resources should be centered on the following:

- I. To make users familiar with the electronic resources available and accessible.
- II. To describe the basic features of the e-resources.
- III. To educate trainees on access policies.
- IV. To describe the necessary hardware and software requirements for the effective use of e-resources.
- V. To teach participants the basic search skills required for the use of OPAC.

2.4.2 Information Literacy Programmes

Information literacy is a vital element of a prosperous academic career (Oakleaf and Owen, 2010) cited in Kodani (2012). The authors believe that students who do not possess these skills will be

delayed and frustrated when trying to complete academic work that requires research. A study by Odede and Nsibirwa (2018) discovered that the ability to use electronic resources for information requires proficiency in various areas of information literacy. The study revealed that the following dimensional constructs of information literacy are necessary when utilizing electronic resources: publishing literacy, tool literacy, critical literacy, social-structural literacy, and emerging technology literacy. The authors believe that information literacy programmes would increase the information literacy skills of students, which will then contribute to the utilisation of electronic information resources. Along similar lines, Azubuike (2016) posits that academic library personnel should have ICT skills to train students on using ICTs to access and use electronic information resources. These views align with Toyo (2017), who argues that users are required to acquire information literacy skills due to increased use of electronic resources. These skills have become increasingly important as the technological landscape is forever changing, and keeping abreast has become equally important. Without such skills, access, retrieval, and utilisation of electronic information resources becomes a task filled with obstacles.

2.5. The importance and benefits of electronic information resources in higher education

Many studies have been conducted on electronic information resources in higher education. Manda and Nawe (2008) investigated the impact of electronic information resource use on research output in different universities in Tanzania. The study aimed to gain insights through the use of interviews and questionnaires. It was revealed that electronic resources had a positive contribution to research output as well as publishing. This is consistent with a study by Akussah, Asante and Adu-Sarkodee (2015), which sought to investigate the impact of electronic resources in academic libraries in Ghana. Through a quantitative approach that utilised questionnaires, the study revealed that there was an affirmative link between usage and users of the information system. This confirms Tlakula and Fombad's (2017) sentiments that sufficient use and awareness of electronic information resources at institutions of higher education is helpful towards the realization of the country's improved education system. Even though the studies were conducted in different contexts and used diverse populations, there are similarities in terms of the positive impact of the use of electronic resources in academic institutions. This supports the assertions by Usman and Fakandu (2018) that the use of electronic resources to aid teaching and learning is recognized worldwide. It is evident

from these studies that regardless of the context settings, electronic information resources play a significant role in the students' academic success.

A study by Bhat (2019) revealed that respondents felt that using electronic information resources exposed them to a slew of scholarly material, enabling them to develop new research ideas. Kwafoa, Anhwere and Manu (2018) posit that using electronic information resources allows students to stay updated with the latest developments in their respective subject fields as these resources are updated regularly. Other studies by (Sritharan, 2018; Gupta and Sharma, 2016) found that respondents were satisfied more with subscription-based electronic resources. Literature reveals that the importance, benefits, and satisfaction level varies with each type of electronic information resource. Studies by (Katabalwa and Mnzava, 2020; Anyim, 2020) revealed that the majority of students used and viewed OPAC as important in satisfying their information needs. The reasons cited for this trajectory include recognizing the library items that are available in the collection for a limited time, locating library materials, and recognizing the status of books are all important skills. Both studies adopted a quantitative approach and used a questionnaire as an instrument. The benefits received from each resource contribute to the level of satisfaction with that resource.

Generally, students are satisfied and regard electronic resources as more important than printed materials. Owushi and Mundi (2021) found that students viewed the currency of information resources as a benefit that influenced their utilisation of library electronic resources. There is inadequate evidence to determine whether demographic variables such as gender contribute to satisfaction levels. Habiba and Ahmed (2022), in their study about factors affecting faculty satisfaction with university-subscribed resources, found that there is no significant difference in satisfaction levels between males and females.

2.6. Determinants of use of electronic resources

Studies have been conducted to gain insight into the factors that have direct and indirect impacts on students' use of electronic information resources for academic purposes. Nwone and Mutula (2019) investigated the determinants of the use of electronic information resources by social science and humanities professors in three federal universities in Nigeria. The study adopted a descriptive survey where a questionnaire was used to collect the data. Findings revealed that

expectancy, effort expectancy, attitude and social influence significantly influence the use of electronic resources. A notable determinant is attitude because many other factors can also influence it. Osih and Singh (2020) investigated the perceptions of students on the adoption of an e-textbook (digital) as an alternative to the printed textbook.

Through the use of mixed methods, the study revealed that perceptions of use and ease of use directly impacted the attitude towards a resource, which eventually influenced behavioural intention or use of the resources. These findings are consistent with what Tao (2008) discovered in his study titled “Understanding Intention to Use Electronic Information Resources: A Theoretical Extension of the Technology Acceptance Model (TAM)”. Using focus groups and questionnaires as instruments for data collection, the study found that perceived usefulness played a key role in determining students’ intentions to utilise an electronic resource. It is worth noting that the last two studies (Osih and Sigh, 2020 and Tao, 2008) made similar findings because both studies were underpinned by the TAM. The point of difference from the first study (Nwone and Mutula, 2019) is the use of the extended UTAUT model, which explains the difference in the determinants of use.

2.6.1. Perception

It is important to understand the perceptions of students about library resources. This is because perceptions are influential when students decide to use or not use library resources (Yamson, Appiah and Tsegah, 2018). “The user perception about electronic resources has become an enigma across all libraries as its dynamic nature, interoperability and flexibility compared to print resources and also users’ characteristics also contribute to several challenges of electronic resources in the library as a service unit in tertiary institutions” (Salman, Ahmed, Raheem and Pelemo, 2020:103). According to Dijksterhuis and Knippenberg (1998:865) “the mere perception of a person or a group of persons triggers a mechanism producing the tendency to behave correspondingly.” McDonald (2012) posits that perception is about how a person sees the world around them. The author further states that perception is an exclusively personalized experience, and one can only draw from what is known to themselves. This provides a backdrop against which Odu and Afebende's (2015) findings can be understood. The study revealed a mix of positive and negative perceptions that students had about electronic information resources. The study also

revealed that those with a negative perception were unlikely to use electronic resources, while those with a positive perception were the actual users of electronic resources. It, therefore, suggests that academic libraries can play a key role in shaping students' perceptions regarding electronic resources to encourage the usage thereof.

2.6.1.1. Perceived usefulness

Davis (1989) has defined perceived usefulness as the extent to which an individual considers that using a certain system would improve their job performance. He further defined perceived ease of use as the extent to which an individual considers that using a certain system would be hassle-free. According to Adentula (2016:19), “Difficulty of use can discourage adoption of an otherwise useful system; no amount of usefulness can compensate for a system that does not give ease of function. The prominence of ease of use over usefulness has important implications for designers, who have tended to overemphasise usefulness over perceived ease of use.” For students to use electronic information resources, they must think of them as useful in their learning journey and easy to use when the need arises.

Many studies have investigated these two constructs as influencers in the utilisation of electronic information resources. In their study, Mollel and Mwantimwa (2019) found that perceived usefulness and perceived ease of use were determining factors in the behavioural intention of students to use electronic resources. In a study by Dubale (2019), 94% of the respondents stated that they found electronic information resources to be useful. Eighty-four (84%) of the respondents confirmed that these resources were easy to use. Respondents further pointed out that using electronic information resources improved the quality of their work. On the other hand, a study by Adeoye and Olanrewaju (2019) showed that respondents considered electronic information resources useful. Respondents further revealed that using these resources was mentally exhausting.

In the studies mentioned, where perception was positive, utilisation of electronic information resources was also high. Likewise, where perception was negative, utilisation was low. These studies align with Ogunrewo, Kolawole and Osundina (2015), who found that perceived usefulness and ease of use to be considerably associated with the use of electronic information resources. However, there have been dissenters to the view that perceived usefulness and perceived ease of use directly influence behavioural intention. Arunachalam (2019) argues that the relationship

between perceived usefulness, perceived ease of use and behavioural intention is mediated by user satisfaction. The author further states that in order to improve resource utilisation, user satisfaction has to be enhanced by improving perceived ease of use and perceived usefulness.

2.6.1.2. Perceived ease of use

In terms of ease of use, Akpojotor (2017: 63) defines this concept as “the degree to which a particular technology is less stressful to use, while usefulness has to do with the extent to which a particular electronic resource helps the researcher to solve a particular problem.” A study by Abubakar, Issa and Ambali (2021) revealed that the majority of respondents indicated that they find it easy to use electronic information resources, especially e-databases. The study further revealed that interacting with e-databases does not require much mental effort. This is in tandem with Patricia and Sibanda (2023), who found that e-resources were easy to use and had a high frequency of use compared to printed materials. However, these studies contradict Odu and Afebende (2015), whose study revealed that the majority of respondents regard electronic resources and services as difficult to use. The disparities in findings could be attributed to the fact that the studies were done in diverse situations, each of which may have had other external influences impacting them. Nwone and Mutula (2019) argue that even if users have the knowledge and resources required for the use of electronic information resources, the incompatibility of their devices and the absence of technical personnel to help in the event of a problem with electronic information resources present a technical challenge to efficient utilisation of electronic information resources.

2.6.1.3. Perceived ease of access

Many studies have been conducted to try and understand the accessibility of electronic information resources and how they contribute to their utilisation. Mawere and Sai (2018) found that electronic resources were not easy to access due to only being available within the university network infrastructure. Mwamasso and Onyango (2020) found that the majority of students perceived electronic information resources as not easily accessible due to a shortage of computers, computer knowledge, electricity and network challenges. These two studies are in dispute with Bwalya and Ssebbale (2017), whose study found that the majority of respondents had no difficulty accessing e-resources because they possessed enough computer capabilities. It can, therefore, be argued that

the accessibility of electronic information resources largely depends on facilitating conditions such as technological skill, availability of technological devices, power and network availability. Where such facilitating conditions are favourable, electronic information resources will be easily accessible. Also, it is worth noting that not all of the aforementioned conditions must be present. In their study, Ebong, Ogwo and Nwachukwu (2019) found that inadequate ICT skills did not constitute barriers to accessibility and competent utilisation of electronic information resources. This makes ease of access a subjective concept as it is based on how the user perceives the resource.

2.6.2. Awareness

For students to be able to use electronic information resources, these need to be available first. Moreover, students need to have knowledge of the existence of these resources. Dada and Eghworo (2020) support this, stating that a resource cannot be used by someone without some prior knowledge of it. Joel (2020:363) describes awareness as “knowledge or perception of a situation, fact, consciousness, recognition, realization, grasp and acknowledgement concern about and well-informed interest or familiarity in a particular situation or development.” Alawiye, Amusa, Ajiboye and Adegbaye (2016:48) defines awareness of electronic resources as “the extent to which users have information and knowledge of electronic resources being subscribed to by a library.” An assertion can then be made to suggest that the utilisation and underutilisation of electronic information resources are dependent on its awareness or lack thereof (Obande, Osakwe, Ujakpa, Iyawa, Ikechukwu and Amunkete, 2020). Similarly, Akande and Popoola (2022), in their study of awareness and use of electronic resources in National Agricultural Institutes in Nigeria, found that there was a link between awareness and the utilisation of electronic resources. Wendo (2013) conducted a study on the factors affecting the usage of electronic information resources. The findings showed that students were unaware that it was possible to download online journal articles in various formats. Furthermore, students were not aware of the credentials needed to access these resources. Consequently, this affected the extent to which they engaged with and made use of these resources. This confirms the finding by Okwu and Madu (2022) is a significant relationship between awareness of e-books, e-journals, e-theses, and dissertation and their use by undergraduate students.

Shivaraju and Sivasami (2019) posit that academic libraries have no challenges in making electronic information resources available as they subscribe to various resources and provide maximum access at minimal to no cost. The only main problem is the usage of these resources, which is to some degree linked to awareness among the user community. This argument lends itself to Agyei and Fiankor's (2016) study, which found that despite an upward trajectory in electronic information resources offered by the library, patron support is generally very low, as most students are unaware of these resources. On the other hand, (Vanik and Gamit, 2022; Srinivasulu and Ravinder, 2022) found that the majority of students were aware of electronic tools, services, and the proper application of these resources. Though the studies adopted the same research approach and used the same instruments, the context in which they took place was different. They were based in Ghana, Nigeria, and India, respectively. Considering the available literature, it is therefore fair to suggest that awareness of electronic information resources influences utilisation.

2.7. Hindrances to the use of electronic resources

Scholars have constantly studied the challenges of the utilisation of electronic resources in both international and African university contexts. Iqbal, Tariq and Ahamd (2021) investigated challenges faced by students when accessing electronic resources in higher education institutes in Pakistan. The findings revealed that ineffective database layouts and poor download speeds were major hurdles to the use of electronic resources. Ugwu and Orsu's (2017) study of the challenges of the use of online information resources by undergraduate students at the University of Nigeria, discovered that primary student challenges include a lack of browsing skills and a lack of encouragement to utilise electronic information. This is in line with findings from a study conducted by Obande, Osakwe, Ujakpa, Iyawa, Ikechukwu and Amunkete (2020), who revealed that a lack of advanced searching skills was an impediment to the use of electronic information resources by students. Akinbo and Omideyi (2022) discovered the same, highlighting ineffective searching skills as a challenge in the use of electronic information resources.

For their part, Okite-Amughoru, Makgahlela and Bopape (2015) investigated the challenges of utilizing electronic information resources for academic research by postgraduate students at Delta State University, Abraka, Nigeria. The findings arrived were that the use of electronic information

resources was hindered by limited access to some EIRs due to limited space, low bandwidth, and unpredictable power supply. Ambrose, Ogunbodede and Idubor (2021) also found that the main inhibitors to off-campus access to electronic resources were erratic power supply and the high cost of data subscription. These findings are not at all surprising considering the socio-economic issues that are pervasive in the African continent. For instance, South Africa has the highest data prices compared to the rest of the continent.

Moreover, South Africa faces the problem of load-shedding, which has had an undesirable effect on almost every facet of everyday life. Similar issues are ventilated in Armah and Cobblah's (2021) study on various challenges related to students' access to electronic resources at a public university library in Ghana. The study revealed that the majority of all undergraduate students cited poor internet connectivity and inadequate computers as hindrances to the use of electronic resources. In South Africa, Moyo (2017) investigated the awareness and utilisation of electronic resources in open distance learning at the University of South Africa and discovered that the internet costs, absence of appropriate literature for studies, lack of time to do online searches and liking for information easily accessible on the internet were the main barriers to the use of electronic resources.

2.7.1. The digital divide

In simple terms, the digital divide refers to the gap between the technological haves and have-nots. The digital divide refers to a disparity in the access to, use, and impact of digital information and communication technology (ICT) among social agents (Helbert, 2015). Ngubane (2020) defines the digital divide as the gap in usage and access to digital infrastructure and services between individuals, communities, corporations, and geographical areas. Seifert (2017) posits that access does not only refer to owning a technological device that can connect to the Internet but also the opportunity to obtain the necessary skills to use the Internet. According to Statista (2022), in January 2021, there were 38.13 million active internet users in South Africa. Out of that population, 36 million accessed the internet through mobile devices. These figures denote a serious inequity problem in the access and use of ICTs in South Africa. In a country with a population of 60 million, more than 20 million do not have access to the necessary ICTs. Clarke (2014) posits

that though South Africa is regarded as one of the most technologically advanced in Africa, there exists a schism between those who can afford and access online material and those who cannot.

ICT access and availability play a significant role in students' academic success. Therefore, the inadequacy of ICT equipment and connectivity issues have made the already weak education system in developing regions even more ineffective. Azionya and Nhedzi (2021) opine that network coverage, device type, time of day, socio-economic status and digital competence negatively affect students' use of ICTs. Lembani, Gunter, Breines et al. (2019), in their study on the digital divide between urban and rural distance education students in South Africa, revealed that the educational experience between students from urban areas and those from rural areas was significantly different. Faloye and Ajayi (2021) have made similar findings in their study about the effects of the digital divide on South African students, where findings showed that students from disadvantaged schools had difficulties in using ICTs and application programmes in the university. The emergence of the COVID-19 pandemic has further exposed the inequities that exist within the higher education system because of the lack of access to ICTs. Aqili and Isfandyari-Moghaddam (2008:235) argue that “regardless of the role of libraries and librarians and the information sector at large, cooperation as well as collaboration among all related bodies, both at the national and the international level, is the key to alleviate the obstacles to information access, and so diminish the educational and information divide and totally digital divide within each country.”

2.7.2. Inadequate Digital Literacy Skills

The prevalence of electronic information resources implies that more information has been and continues to be digitized. Therefore, it is sensible for students to have digital literacy skills to enable their search for electronic information resources (Omoefe and Echedom, 2021). Anjaiah (2016:1) describes Digital Literacy (DL) as ‘the process of teaching and learning about technology and the use of technology. It is the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills. The ability to use digital technology, communication tools, or networks to locate, evaluate, use, and create information. The ability to understand and use information in multiple formats from a wide range of sources when it is presented via computers.” Ndagi and Madu (2018) opine that it

may take students with low digital information literacy skills a lot of time to retrieve information due to the issues they may encounter when seeking information from electronic resources. Digital literacy has been seen as a criterion in the adoption, incorporation and utilisation of electronic information resources in the academic system for teaching, learning and research purposes (Ojeniyi and Adetimirin, 2016). The authors further state that the use of ICT, which is a catalyst for electronic information resources, tends to be far below expectations due to the inadequacy of digital literacy skills. In their study, Ebiefung and Onah (2021) revealed that the core contributors to the attainment of digital literacy skills by students of South-south universities in Nigeria were the cost of training, technophobia, inaccessibility of facilities, lack of digital facilities in the schools, complexity of online resources, network problem and lack of electricity. This then becomes an impediment to the use of electronic information resources.

Adeoye and Adeoye (2017) discovered that the use of electronic information resources was directly linked to their availability and, most importantly, to the level of digital literacy skills possessed by students. Similarly, Oyeyemi (2021) found that the underutilisation of electronic information resources was due to a lack of skills to formulate search strategies for finding information in a digital environment. As a solution, Bashorun, Bashorun and Akinbowale (2021) recommend that libraries should ensure that information literacy programs run for the entire duration of the study, not only in a few instances like the orientation period in the commencement of studies.

2.8. Appraisal of the literature

The reviewed literature touched on types of electronic information resources and the role of the library. Furthermore, it reviewed four major aspects of electronic information resources in higher education; use and impact, determinants of use and barriers to the use of electronic resources. There seems to be a trend in terms of these studies focusing largely on African university contexts. Furthermore, though there have been similar findings from the studies, it should be noted that the studies differ in terms of the research approaches used and the population targeted. There are also differences in the theoretical frameworks used. This provided a suitable gap to be filled by the present study by focusing on a South African university context and contributing to the literature on perceptions and use of electronic information resources in South African higher education

institutions. The study lends itself to current discussions on using electronic information resources to support hybrid learning environments. Moreover, the study is policy significant as it sought to address the challenges and perceptive factors contributing to the underutilisation of electronic information resources.

2.9. Chapter Summary

In this chapter, literature that is relevant to the perceptions and use of electronic information resources in academic libraries was reviewed. The chapter started with discussions on the types of electronic information resources, the use of electronic resources by students and the role of the library in promoting electronic information resources. A discussion on use and impact followed this, as well as determinants of use and barriers to the use of electronic resources. Accordingly, this chapter looked at the extent to which various studies have investigated the use of electronic resources. The next chapter will discuss the research methods and techniques adopted in this study.

Chapter Three: Research Methodology

3.1. Introduction

This chapter focuses on methods and techniques adopted in conducting this study. The chapter outlines the research paradigm, research design, research approach, population of the study, sample and sampling technique, research instrument used, validity and reliability of the instrument and data analysis. The chapter ends with a discussion of the ethical considerations taken in conducting the study.

3.2. Research Paradigms

Research paradigms essentially reflect our beliefs regarding the world we live in and want to live in. Paradigms can be referred to as different perspectives of viewing the world, and they often form the basis from which research is assumed (Davies and Fisher, 2018). Kivunja and Kuyini (2017:1) regard this worldview as the perspective, or thinking, or school of thought, or set of shared beliefs that inform the meaning or interpretation of research data. Paradigms of research are classified into positivism and interpretivism. McGregor and Murnane (2010:5) opine that the positivistic research paradigm is based on the assumption that the only way people can be positive that the knowledge is true is if it was produced through a scientific method; hence, it comprises the empirical methodology, meaning data is derived from experiment and observation. Rehman and Alharthi (2016) posit that the positivist paradigm is underpinned by the ontological position of realism and an epistemological position of objectivism. Through realism, it is believed that researcher arrives at the same conclusion about a phenomenon regardless of the place and time of their work. This is because positivists come in as observers of the study that are independent of them and do not interfere with what is being studied. Eyaufe's (2018:70) research under this paradigm adopts quantitative methodology with experimental methods to collect, analyse, and interpret generalised results.

This study employed a positivist paradigm to collect data that can be quantified and generalised. The positivist paradigm has underpinned studies on the use of electronic resources in higher

education (Somers, 2015; Mawere and Sai, 2018; Osinulu, 2020). More justification of using positivism paradigm is required. Write atleast a paragraph. ok

3.3. Research Design

A research design is a plan that sets out the methodology the researcher will employ to collect data. Terre Blanche, Durrheim and Painter (2006) defined research design as a deliberate plan of action that links research questions and the execution of the research. A research design is a comprehensive plan in which research is conducted (Odede, 2018). The author further states that research design is crucial in every step of the process to realize relevant results. This study employed a descriptive research design as it will allow the researcher to collect data from a larger group within the timeframes of the study.

Moreover, descriptive research has allowed the study to quantify and generalise the results. Rahi (2017) opines that descriptive research aims to gain insights into the current state of phenomena. Moreover, this research design provides a precise profile of events, people or state of affairs. Furthermore, it allows the researcher to generalise the findings and present relevant characteristics of the population that has been measured (Calmorin and Calmorin, 2007). A descriptive research design has been used in studies investigating electronic resources, making it more appropriate for this study. Nwone and Mutula (2019) in their study that examined the determinants of the use of electronic information resources, adopted a descriptive survey where a questionnaire was used to collect the data. Ogunbodede, Ambrose, and Idubor (2021) also used descriptive survey design in their study of undergraduate students' use of electronic resources during the lockdown.

3.4. Research Approach

Creswell (2014) opines that research approaches encompass the data collection, analysis, and interpretation procedures researchers intend to use in their studies. Somer (2015) posits that there are two major research approaches: quantitative and qualitative. This study adopted a quantitative research approach as it is underpinned by a positivist worldview that has been adopted as an underpinning paradigm. Furthermore, this approach is consistent with the research design, allowing the researcher to generalize the study's findings to a greater audience. Williams (2007:66) states that quantitative research intends to establish, confirm, or validate relationships and develop

generalizations contributing to theory. Similarly, Creswell (2009) argues that those who employ this research method assume that the results can be generalised and replicated, that bias is protected against, that alternative explanations are controlled, and that ideas are tested deductively. The quantitative research approach has been successfully used in previous studies of similar nature (Agyei and Fiankor, 2017; Akuffo and Budu, 2019; Akussah, Asante and Adu-Sarkodee, 2015).

3.5. Population

In research, a population refers to a group of people or units that the researcher studies. Shongwe (2017) defines the population as a universe of inquiry. He further posits that it could be individuals, institutions, items or events that are related to the research problem. The population for this study was made up of second-year students who are registered for the Bachelor of Social Science programme offered at the University of KwaZulu-Natal. This population was important to this study as it seeks to uncover student perceptions based on their first-year experiences using electronic information resources. The population of registered second-year students in the Bachelor of Social Science programme in the year 2022 is 1592.

3.6. Sampling Technique

Sampling refers to the selection of the subset of the population of interest in a research study (Turner, 2020:8). Taherdoost (2016) suggests that because researchers do not have the time or the resources to analyse the whole population, they then apply sampling techniques to lessen the amount of cases. There are two major sampling techniques: probability sampling and non-probability sampling. This study adopted probability sampling by specifically employing random sampling. The researcher randomly selected participants from the Howard campus and Pietermaritzburg campus to make up the sample. The reason for selecting this sampling technique was to eliminate chances of bias and to allow for the generalisation of results. Probability sampling has the ultimate freedom from bias because every participant in the population has an equal chance of being selected (Taherdoost, 2016).

3.7. Sample Size

This study's sample size was 310 randomly selected participants from both Howard College and Pietermaritzburg campuses, with 155 participants selected from each campus. The sample size was determined using Krejcie and Morgan's (1970) sample size determination table. The table determines the sample size for a particular population.

<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>	<i>N</i>	<i>S</i>
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	100000	384

Note.—*N* is population size. *S* is sample size.

Source: Krejcie & Morgan, 1970

Figure 3.1 Sample Determining Table

3.8. Research Instrument

Researchers collect data through the use of research instruments. Moyo (2017) posits that data collection instruments are an essential element of the research process, as they offer the analytical

foundation in the pursuit of answers to a particular research problem. Powell (1997), as cited by Buthelezi (2020), states that the three commonly employed data collection instruments are the questionnaire, interview, and observation. The instrument used in this study to collect quantitative data was the questionnaire. The questionnaire was adapted from Somer (2015) and then modified to suit the needs of this study. The questionnaire was chosen because it is a cost-effective data collection instrument (Neuman, 2006). Moreover, the choice of a questionnaire was motivated by the fact that it allows the researcher to collect data from a large group of people within a short period of time. Due to the relatively huge sample size, it would have been time-consuming to administer a hardcopy questionnaire across the two campuses. It is for this reason that the questionnaire was administered electronically.

3.9. Reliability and Validity

Heale and Twycross (2015) define reliability as the degree to which a research instrument constantly has the same outcomes if utilised in the same context repeatedly. They further define validity as the degree to which quantitative studies measure a concept correctly. Cohen, Manion and Morrison (2018) point out that numerous methods guarantee the validity of a research instrument, the most common being to subject it to a pre-test. Kutu (2021) points out that realising reliability in the field of social sciences is challenging as there are many sources of discrepancies in the discipline. The author further states that in order for research to be considered reliable, it must demonstrate that if it were to be carried out on a group of participants with the same features and in a similar setting, then similar findings will be arrived at. The research instrument to be used in this study is an adaptation of Somer's (2015) questionnaire that was used in a study that investigated the use of electronic resources by students. Therefore, the instrument has already been pre-tested for reliability and validity.

3.10. Data Analysis

Jung (2019) posits that the choice of suitable analysis methods depends on the type of research question and the form of the data. For this study, descriptive data analysis was employed. Descriptive analysis is in line with the research paradigm underpinning this study and the research design and approach adopted. Moreover, descriptive analysis allowed the researcher to identify

trends in the collected data. Furthermore, descriptive statistical data was presented in the form of graphs, tables, and pie charts.

3.11. Ethical Considerations

According to Kamat (2006), researchers are obligated to act ethically when conducting research. For this study, the university's research ethics guiding principles were followed. The researcher will take into consideration ethical issues such as confidentiality, privacy, and anonymity of the respondents. Respondents will be asked for their consent and given background information regarding the study before they can participate. Furthermore, the questionnaire was not administered to participants until the researcher had obtained ethical clearance and a gatekeeper's letter from the university.

3.12. Chapter Summary

This chapter discussed the research methodology used in conducting this study and provided justifications for methodological choices. The chapter outlined the research paradigm, research design, research approach, population of the study, sample and sampling technique, research instrument used, validity and reliability of the instrument and data analysis. The chapter ends with a discussion of the ethical considerations taken in conducting the study. The next chapter will present the findings of the online survey that targeted a sample of second-year social science students.

Chapter Four: Presentation of Results

4.1. Introduction

This chapter presents and discusses the findings of the online survey that targeted a sample of second-year social science students at both Howard and Pietermaritzburg campuses to determine their perceptions of electronic information resources. This chapter interprets the findings based on the analysis of the collected data. It is divided into two parts. The first part reports on the profile information of the respondents, whereas the second part comprises the results pertaining to the use of electronic information resources. It also discusses the findings concerning the relevant literature. A sample of 310 registered second-year social science students were approached to participate in the study by completing the online questionnaire through Google Forms. A staggering 295 students completed the survey, translating to an excellent 95% response rate.

4.2. Findings and discussion of results

The findings and discussions are presented in terms of each of the questionnaire's questions. First, a report on the respondents' demographic details is provided.

4.2.1. Section A: Demographic

The purpose of this section was to gain an understanding of the profile of the respondents. Questions 1 to 3 determined the gender, age, and campus of the student. This was crucial in understanding whether a correlation exists between these variables and using electronic information resources.

4.2.1.1 Gender

In this question, respondents were asked to indicate their gender. The purpose of the question was to gain a better understanding of the respondents in the study. Results in Figure 4.1 below indicate that most of the respondents were male, 159 (50.5 %) compared to 146 (49.5%) of respondents who were female.

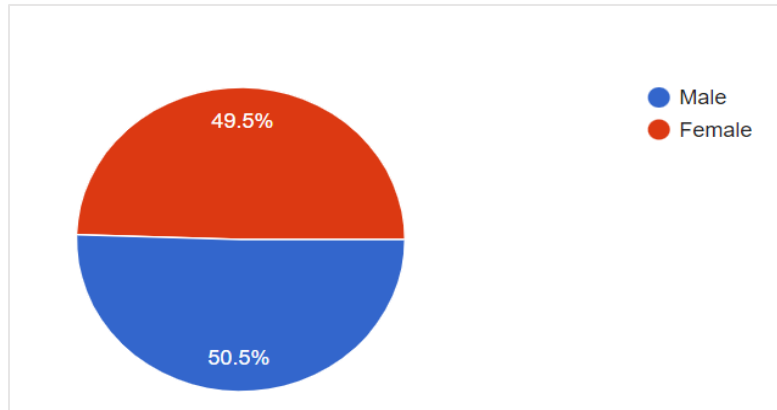


Figure 4. 1: Gender Distribution

N=295

4.2.1.2. Age

In this question, respondents were asked to indicate the age category to which they belonged. The purpose of the question was to determine whether the respondent's age group had any influence on the utilisation of electronic information resources. Results in Figure 4.2 show that the age group most respondents belong to was between the ages of 20 and 25 years, with 105 (35.6%) of respondents in this category. A total of 104 (35.3%) respondents were between 26 and 30 years old, while 73 (24.7%) were between 31 and 35 years old, while nine (3.1 %) were between 36 and 40, while only 4 (1.4%) were 40 years and above.

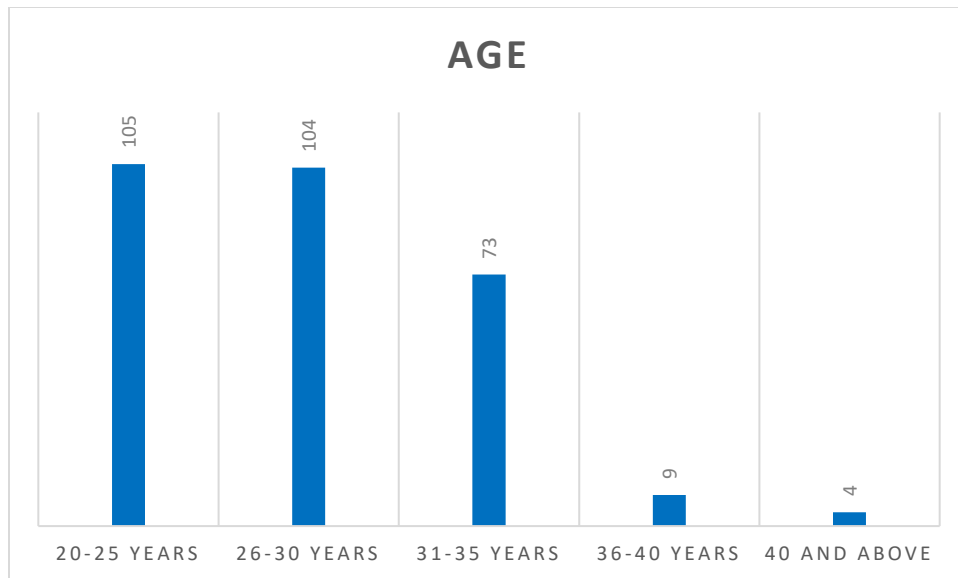


Figure 4.2: Age of Respondents

N=295

4.2.1.3. Campus

Respondents were asked which campus they belonged to, between Howard and Pietermaritzburg campus at which the Bachelor of Social Science degree is offered. Figure 4.3 shows that most respondents, 177 (60%), indicated they belonged to the Howard campus, while 118 (40%) indicated they belonged to the Pietermaritzburg campus.

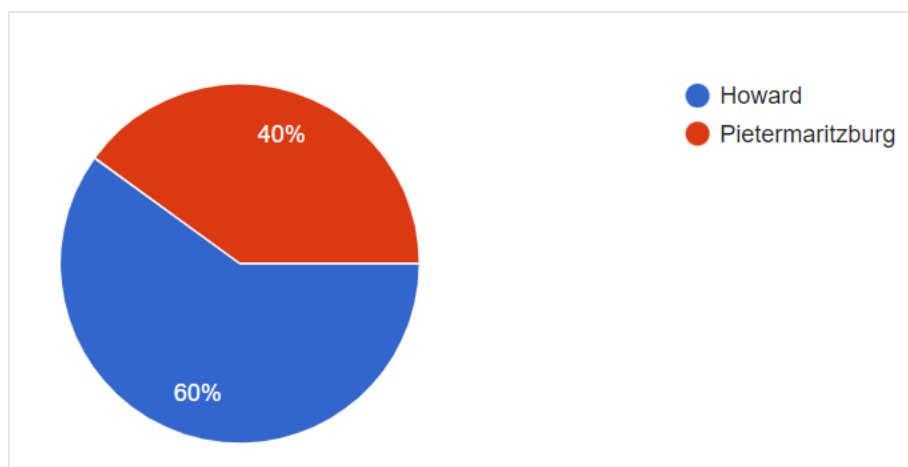


Figure 4.3: Campus of student

N=295

4.2.2. Section B: The use of the library

This section sets out to establish the general usage of the library. Question 4 determined how often respondents visited the library.

4.2.2.1. Frequency of visits to the library

This question was aimed at understanding the respondents' frequency of visits to the library. Respondents were provided with options which ranged from never to daily. The results in Figure 4.4 show that 69 (23.4%) indicated that they visited the library daily, 65 (22%) indicated that they rarely visited the library, 54 (18.3%) visited the library on a monthly basis, 49 (16.6%) visited the library on a weekly basis, 37 (12.5%) visited fortnightly, and 21 (7.1%) indicated that they do not visit the library at all.

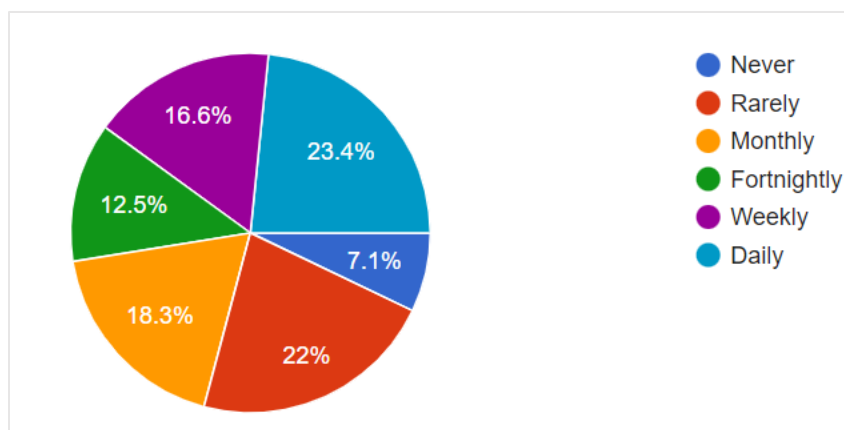


Figure 4.4: Frequency of visits to the library

N=295

Section B2: Information Regarding the Use of Electronic Information Resources

This section relates specifically to the use of electronic information resources offered by the library. The questions in this section aimed at getting information about utilising electronic information resources.

4.2.2.2. The use of electronic information resources

This was a filter question aimed at separating those who use electronic information resources offered by the library from those who do not. The results in Figure 4.5 show that an overwhelming majority of respondents, 232 (78.6%), indicated that they used electronic information resources provided by the library. On the other hand, 63(21.4%) respondents stated that they did not utilise electronic information resources.

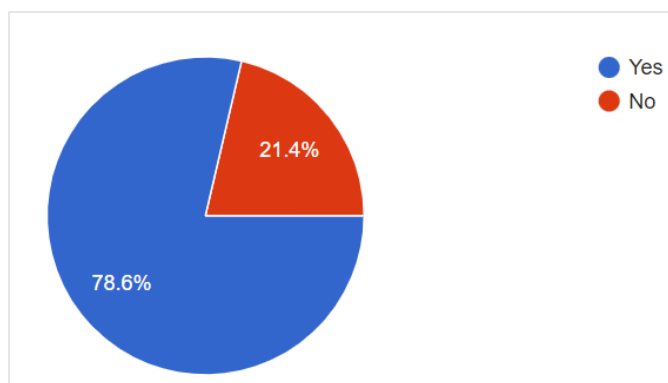


Figure 4.5: The use of electronic information resources N=295

4.2.2.3. Reasons for not using electronic information resources

This question was a follow-up to the one asked above to those who indicated that they do not use electronic information resources to give reasons why they do not use them. The results in Figure 4.6 indicate that the majority 16 (25%) do not use these resources because they do not know how to access them off campus, 14 (21.9%) indicated unsatisfactory results as the reason, 13 (20.3%) said they had no time to search for these resources during library hours. 12 (18.8%) respondents indicated that they had no access to computers and were unaware of the presence of these resources. 11 (17.2%) said they did not require the use of electronic information resources, and lastly, 6 (9.4%) indicated that they did not use these resources because there was no staff to assist them.

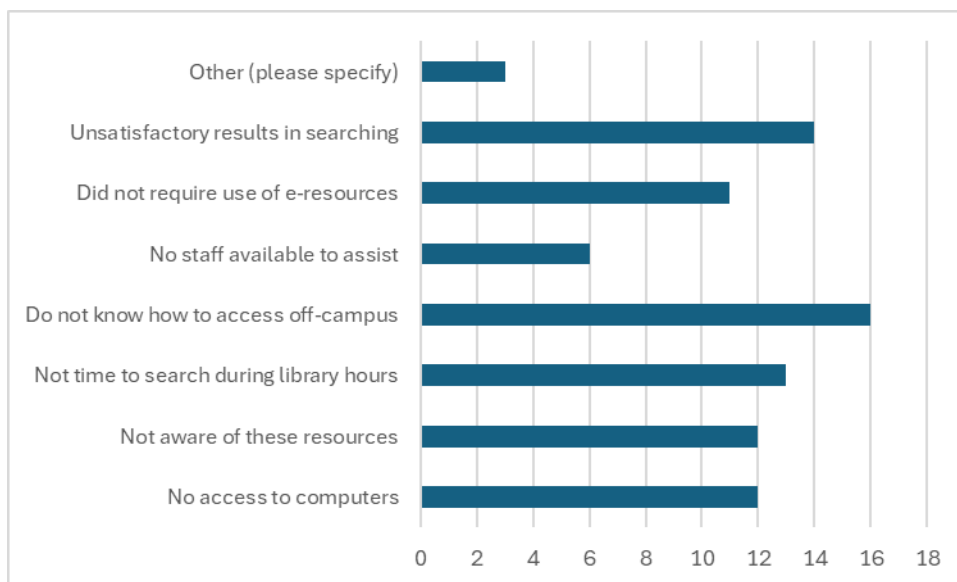


Figure 4.6: Reasons for not using e-resources N=63

4.2.2.4. Frequency of usage

This question was important in establishing which resources are most preferred based on how frequently they are most preferred based on how frequently it is utilised. Students were provided with a list of resources from which they had to indicate the ones they used and the frequency at which they were used. Figure 4.7 shows that e-books were the most preferred resource. The results show that 166 (71%) respondents indicated they used e-books daily, followed by databases that were used every week by 163 (70%) of respondents.

Furthermore, 166 (71%) indicated that they used e-journals on a monthly basis. The least used resources by the majority of respondents were LibGuides 181(78%) and OPAC 180 (77.5%). Respondents indicated that they used these resources less than once a month.

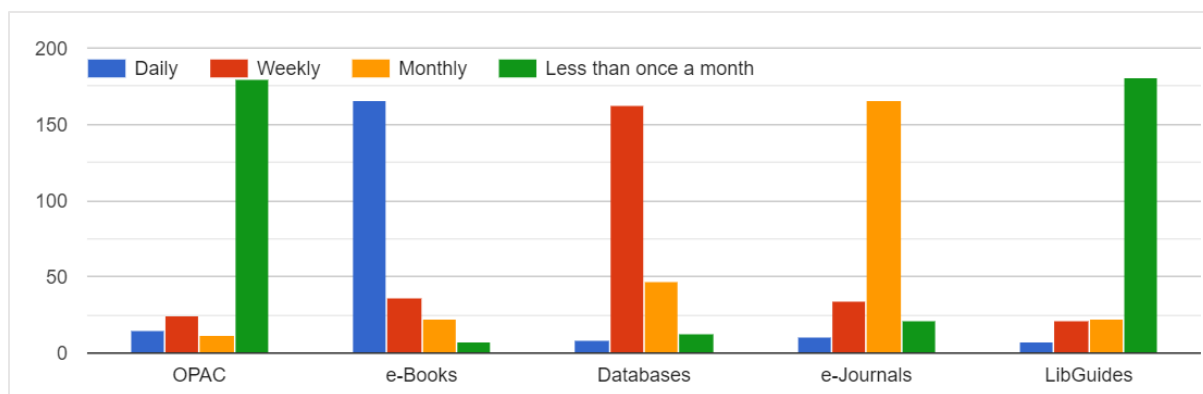


Figure 4.7: Frequency of usage N=232

4.2.2.5. Level of importance of each electronic information resource

This question aimed to measure the level of importance of different electronic information resources. Students were provided with a list of resources that they had to rank according to how important they felt these resources were to them. Respondents were required to rank the e-resources as very important, important, not sure, less important, and not important. Findings in Figure 4.8 show that 171 (73.7%) respondents considered e-books very important. Databases were regarded as important by 151(65%) of respondents. Some of the e-resources that respondents identified as less important and not important included OPAC 150 (64.6%) and LibGuides 147 (63%). 153 (66%) were unsure about e-journals.

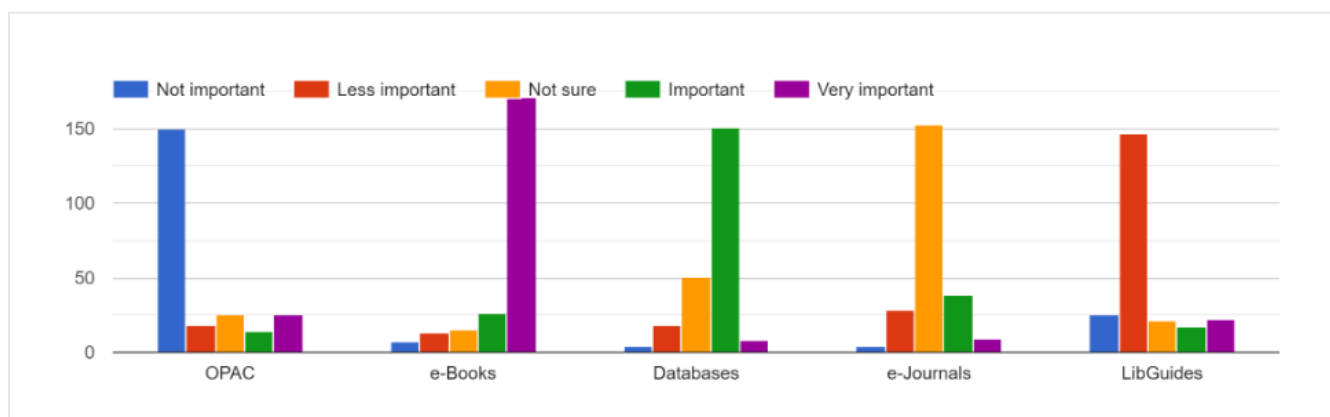


Figure 4.8: Level of importance of each e-resource N=232

4.2.2.6. Benefits of using electronic information resources

In this question, students were provided with six (6) possible benefits of using electronic information resources and were required to rank them according to their importance. The results in Figure 4.9 reveal that 161 (69%) of respondents indicated that the most important benefit of using electronic information resources was “Easy/faster access”. The results further reveal that 151 (65%) indicated that electronic information resources offered the benefit of “Emailing, saving and printing results”. Remarkably, 151 (65%) respondents regarded “currency of information” as the less important benefit of electronic information resources. This counters Anyim’s (2021) argument that students use electronic information resources because of up-to-date information. This revelation allows library personnel to educate students on the importance of the currency of information when completing academic work.

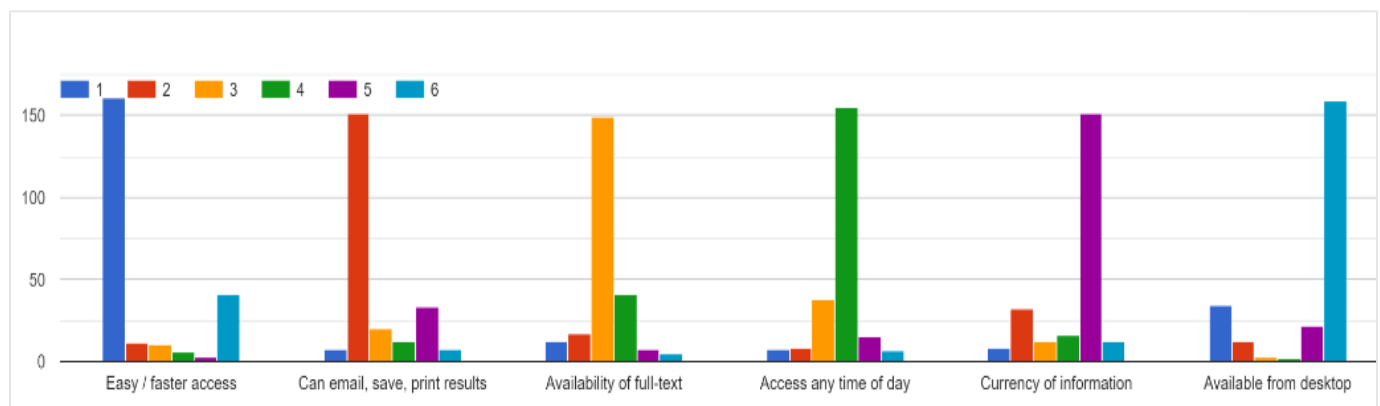


Figure 4.9: Benefits of using electronic information resources N=232

4.2.2.7. Main problems encountered when using electronic information resources

This question sought to determine the main problems students faced when using electronic information resources. Respondents were provided with a list of eight (8) common problems encountered while using electronic information resources. They were required to rank from which was the most serious (1) to the least serious (8). The results in Figure 4.10 show that 142 (61%) respondents indicated “Slow internet connection” as the most serious problem, followed by

“Limited off-campus access” as the second most serious problem 133 (57%). 130 (56%) respondents regarded “Logging in” as the least serious problem they faced when using electronic information resources. While respondents indicated the most serious and least serious problems, it is important to note that 176 (75.8%) indicated that staff is not always available to help. These findings align with Adzobu Armah and Cobblah (2021), who revealed that about 75% of all undergraduate students cited poor internet connectivity and inadequate computers as hindrances to the use of electronic resources.

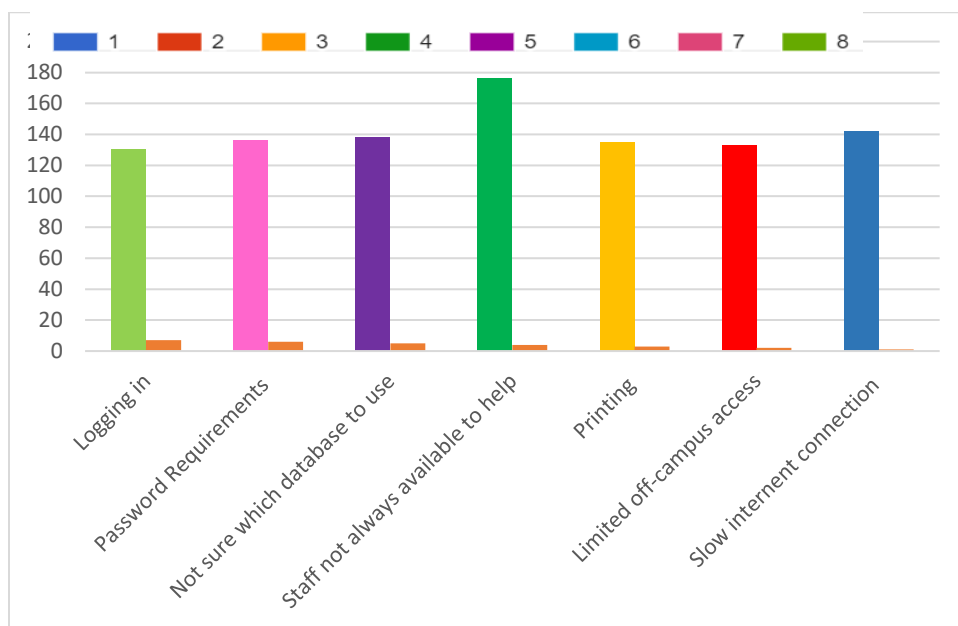


Figure 4. 10: Main problems encountered when using electronic information resources
N=232

4.2.2.8. Different access points for e-resources

This question aimed to determine the access points used by students to access electronic information resources. Respondents were given a list of access points; library, LAN and remote access. Figure 4.11 shows that 99 (42.7%) accessed electronic information resources from the library. A further 83 (35.8%) used remote access (off-campus), whereas 50 (26.6%) used LAN access.

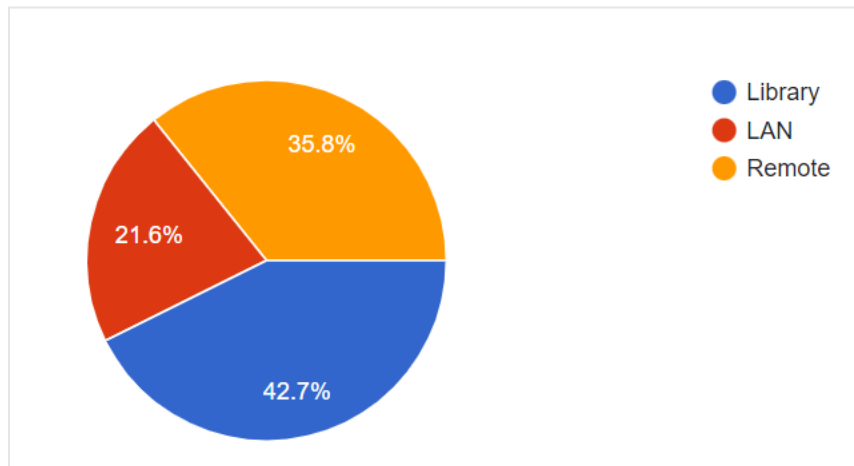


Figure 4.11: Different access points for electronic Information resources N=232

4.2.2.9. Attendance of library user education programmes

This question was asked to establish if students attended user education programmes offered by the library. Moreover, the question would assist in determining whether a correlation exists between problems encountered when using electronic information resources and training attendance. The results in Figure 4.12 reveal that a significant number of respondents, 201 (86.6%), indicated they had attended the user education programmes, while 31 (13.4%) said they had never attended any.

Of the 31 (13.4%) respondents who said they have never attended any library user education programmes, the reason/s given included:

- “I study remotely. As far as I'm aware, there's never been a webinar for this purpose.”
- “I did not have the time to attend.”

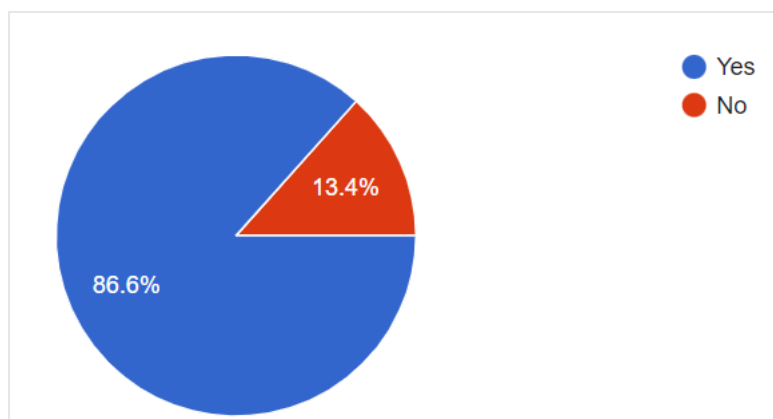


Figure 4.12: Attendance of library user education programmes N=232

4.2.2.10. Finding out about electronic information resources

The purpose of this question was to find out how respondents got to know about the electronic information resources offered by the UKZN library. Respondents were required to indicate from where or whom they found about these electronic information resources. Figure 4.13. shows that 65(28%) respondents were informed by their lecturers, 54 (23.3%) through the library user education programme, 47 (20.3%) found out through library guides, 42 (18.1%) via the library webpage, and only 24 (10.3%) found from friends.

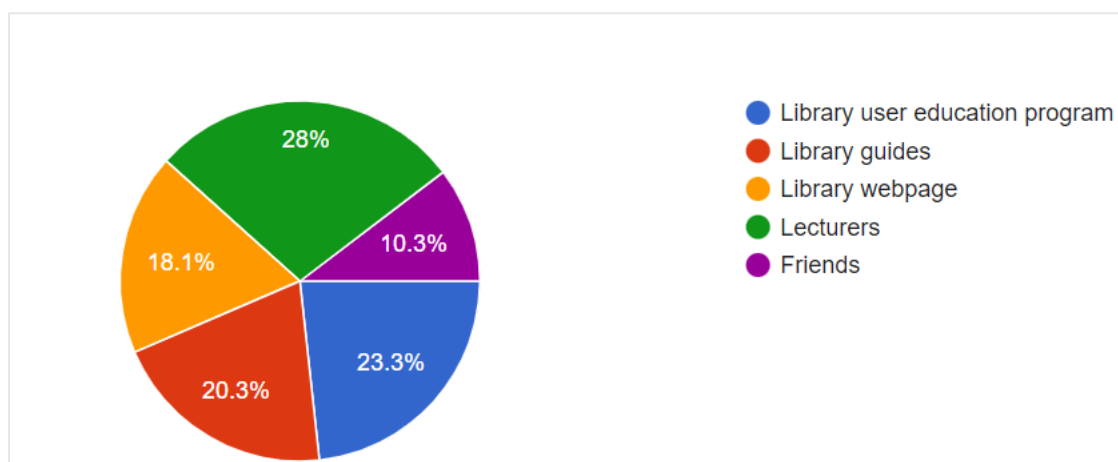


Figure 4.13: Finding out about electronic information resources N=232

4.2.2.11. Skills to access electronic information resources.

In this question, respondents had to indicate whether they had sufficient skills to access electronic information resources. Figure 4.14. below shows that 194 (83.6%) had sufficient skills while 38 (16.4%) did not have adequate skillsets to access electronic information resources.

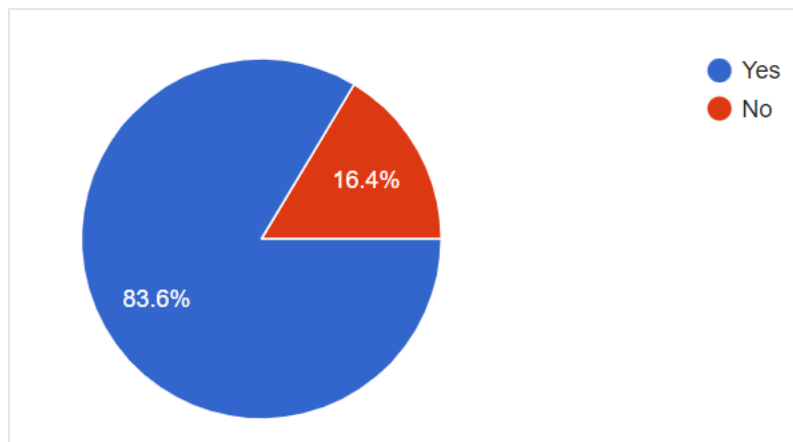


Figure 4.14: Skills to access electronic information resources N=232

4.2.2.12. Difficulties experienced when accessing electronic information resources.

This was a follow-up question to the question regarding skills to access electronic information resources. Students who indicated they did not have sufficient skills were asked to indicate the difficulties they experienced when accessing electronic information resources. Interestingly, Figure 4.15 shows that 143 (61%) students answered this question even though only 38 (16.4%) indicated they did not have sufficient skills to access electronic resources. This means that though students may feel they have the necessary skills, they still encounter challenges when using electronic information resources. In terms of difficulties experienced, 53 (37.1%) indicated they experienced difficulty with developing a search strategy, 52 (36.4%) had difficulty with using the software interface, and 46 (32.2%) had difficulty with limiting search results. Lastly, 43 (30.1%) indicated they lacked general computer skills. These findings vindicate Toyo (2017), who argues that users are required to acquire information literacy skills due to the increase in electronic resource use.

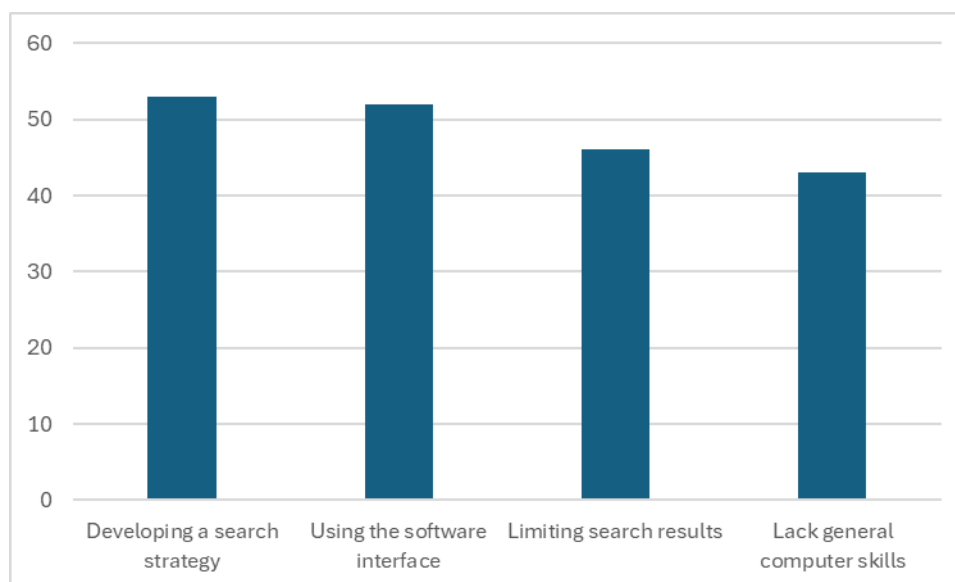


Figure 4.15: Difficulties experienced when accessing electronic information resources N=232

4.2.2.13. Level of skill with accessing and using electronic information resources

This question aimed to gauge the students' skill level when accessing electronic information resources. Respondents had to indicate whether their skill level was beginner, intermediate or advanced. Figure 4.16 below shows that 109 (47%) respondents indicated that their skill level was intermediate, while 69 (29.7%) indicated that their skill level was beginner. Lastly, only 54 (23.3%) indicated their skill level as advanced.

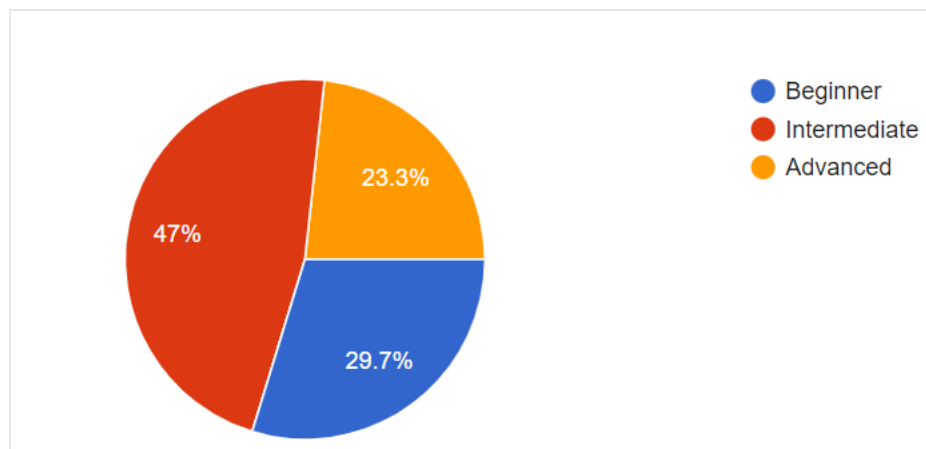


Figure 4.16: Level of skills with electronic information resources N=232

4.2.2.14. Identification of relevant electronic articles

This question aimed to determine the respondents' techniques when identifying relevant electronic articles. The results in Figure 4.17 show that 86 (37.1%) respondents indicated that they follow citations and bibliographic references, 68 (29.3%) said they search bibliographic databases, 66 (28.4%) indicated that they rely on the library webpage or library staff, 55 (23.7%) indicated that they rely on alerting services, 53 (22.8%) identify relevant electronic articles by browsing through recent issues. Lastly, only 40 (17.2%) rely on academics.

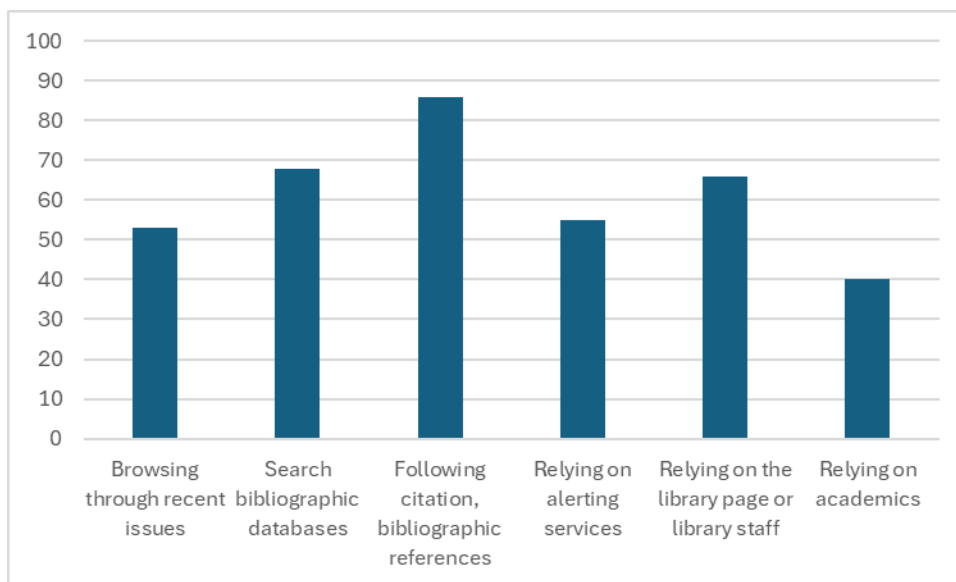


Figure 4.17: Identification of relevant electronic articles N=232

4.2.2.15. The extent of usefulness of electronic information resources

This question aimed to determine the extent to which respondents considered electronic information resources useful. Figure 4.18 shows that 79 (34.1%) respondents regarded electronic information resources to be 'very much useful', 73 (31.5%) indicated that they were 'nominally useful', and 41 (17.7%) said they were 'useful'. In comparison, 32 (13.8%) said they were 'not as useful as it is thought'. Lastly, seven (3%) considered electronic information resources 'not at all useful'. These results are consistent with a study by Dubale (2019) 94% of the respondents stated that they found electronic information resources to be useful.

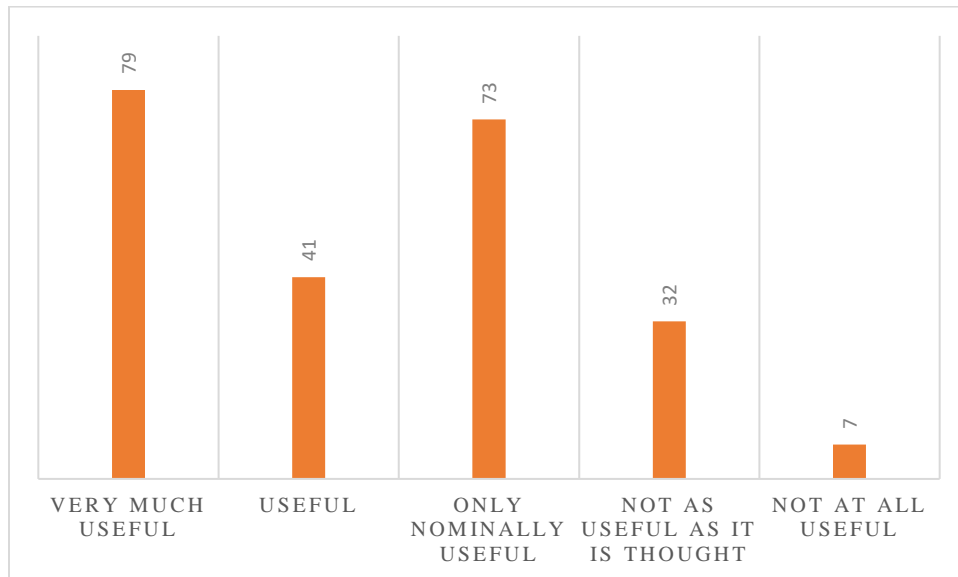


Figure 4.18: The extent of usefulness of electronic information resources N=232

4.2.2.16. Ease of access to electronic information resources

In this question, respondents had to indicate the extent to which they thought electronic information resources were easy to access. Figure 4.19 shows that 99 (42.7%) respondents indicated that they regarded electronic information resources as relatively easy to access, 68 (29.3%) considered electronic information resources easy to access, while 50 (21.6%) were undecided (neutral). Lastly, only 15 (6.5%) said electronic information resources were challenging to access.

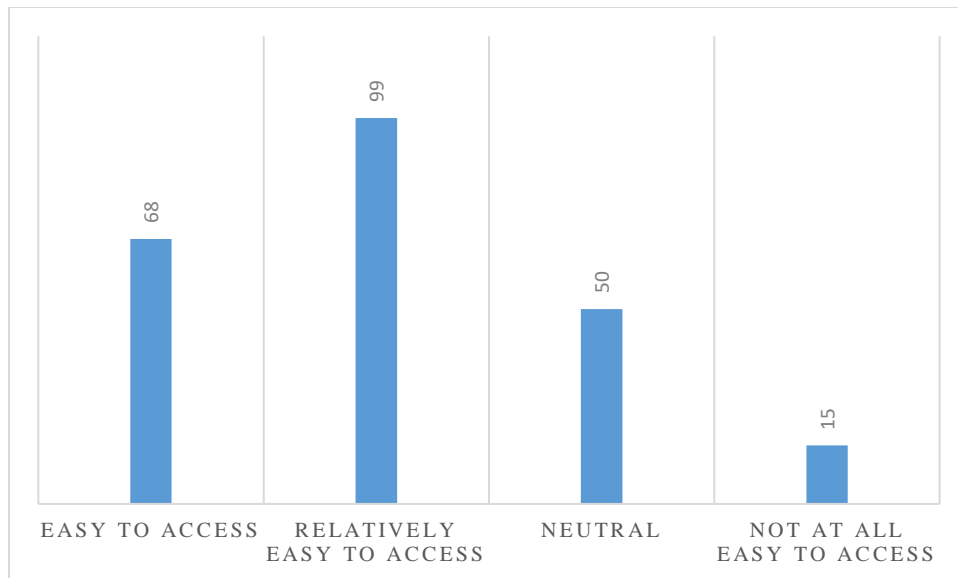


Figure 4.19: Ease of access to electronic information resources N=232

4.2.2.17. Ease of use of electronic information resources

In this question, respondents had to indicate the extent to which electronic information resources were easy to use. Figure 4.20 below shows that 79 (34.1%) indicated that electronic information resources were 'relatively easy to use', 73 (31.5%) said they were undecided and selected neutral, while 63 (27.2%) regarded electronic information resources as 'very much easy to use'. Lastly, 17 (7.3%) indicated that electronic information resources were 'not at all easy to use'.

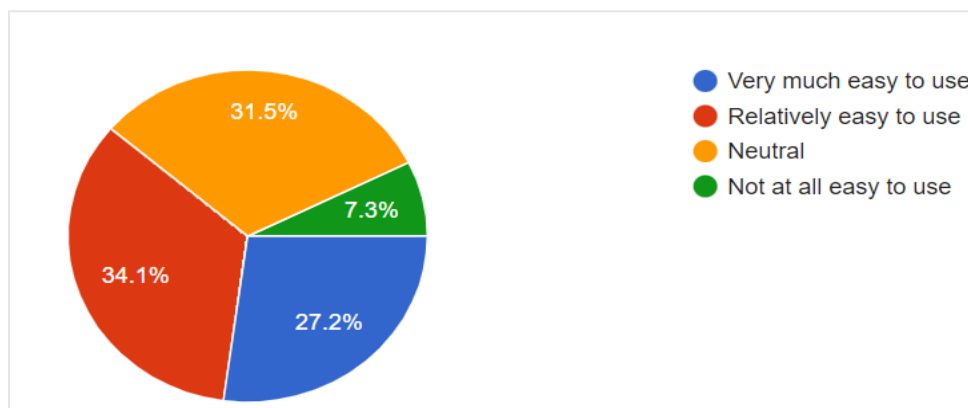


Figure 20: Ease of use of electronic information resources N=232

4.2.2.18. Factors to encourage the use of electronic resources.

This question aimed to determine which would encourage students to use electronic information resources. Figure 4.21 shows that 92 (39.7%) respondents indicated that computer literacy training would encourage them to use electronic resources, and 71 (30.6%) indicated that literature-searching training would get them to use electronic resources. In comparison, 69 (29.7%) said a navigable library website would inspire them to use electronic resources.

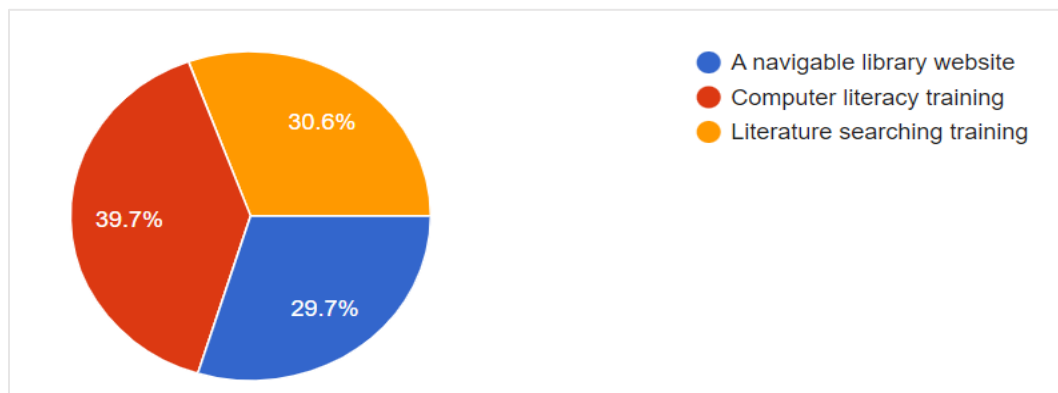


Figure 4.21: Factors to encourage the use of electronic resources N=232

4.3. Chapter Summary

This chapter presented and discussed the findings from a survey in Google Forms. Findings of the results from the data collected were presented in the form of figures and discussed in light of the relevant literature. The results showed that majority of students used electronic information resources and that they had positive perceptions regarding ease of use, usefulness, and access. Chapter five will discuss the findings presented in this chapter in more detail.

Chapter Five: Discussion and Interpretation of Results

5.1. Introduction

The aim of this study was to investigate second-year social science students' perceptions of electronic information resources at the University of KwaZulu-Natal. Three hundred ten second-year social science students were surveyed, and 295 students completed the online survey, making an excellent response rate of 95%. Quantitative data was collected and analysed to address the objectives and questions of this study. The study adopted the TAM (Davis, 1989) as its theoretical understanding. This chapter provides a discussion of the results as presented in chapter four.

Moreover, the discussion of findings will also make reference to the literature review as an aspect of this study. This chapter will be organised in line with the objectives and research questions. The following themes, resulting from the objectives and research questions, serve as the foundation for the discussion:

- Students' level of awareness of electronic information resources.
- Students' level of use of electronic information resources.
- Students' level of satisfaction with electronic information resources.
- Challenges experienced by the students when using electronic information resources.
- Student perceptions towards electronic information resources.

5.2. Demographic profile of respondents

Although demographic profiling was not one of the study objectives, it was vital to discuss student profiles because an individual's demographic might occasionally influence behaviour. Section A of the questionnaire opened with the respondent's profile. The respondents' profiles from the questionnaires revealed that most of the respondents were male, 159 (50.5 %) compared to 146 (49.5%) female respondents. As far as age is concerned, the findings revealed that the age group most respondents belong to was between the ages of 20 and 25 years, with 105 (35.6%) respondents in this category. It is also important to note that all age groups in the questionnaire were represented. Most of the students, 177 (60%), belonged to the Howard campus.

Students were asked to indicate the frequency at which they visited the library. The study revealed that 69 (23.4%) indicated that they visited the library daily, 65 (22%) indicated that they rarely visited the library, and 21 (7.1%) indicated that they did not visit the library at all. When looking at those who rarely visit the library and those who do not visit the library at all, an assumption can be made that the majority of second-year social science students do not use the physical collection in the library.

5.3. Students' level of awareness of electronic information resources

Awareness is one of the pivotal factors that directly impact the use of information resources. Somers (2015) argues that levels of awareness vary significantly across different schools, colleges, and academic libraries worldwide. A study that focused on second-year social science students at the University of KwaZulu-Natal has yet to be conducted. Therefore, a study was necessary to focus on this demographic and investigate their perceptions of electronic information resources. An overwhelming majority of respondents, 232 (78.6%), indicated that they used electronic information resources offered by the library. This was an indication that they were aware of the existence of electronic information resources and that this awareness contributed to their utilisation. This is in line with Vanik and Gamit (2022), who found that 81.03% of students were aware of e-resources offered by the library. Although the study was conducted in India, the common characteristic is the population, which is undergraduate students. Only 63(21.4%) respondents stated that they did not use electronic information resources. Remarkably, the main reason cited by 16 (25%) respondents for not using electronic information resources was that they did not know how to access them off campus. Only 12 (18.8%) indicated they needed computer access and were unaware of these resources' presence.

These findings suggest that awareness of the resources alone was not the main hindrance to the use of electronic information resources. However, the 'know-how' to access the resources is relative to 'knowing about' the resources. On this premise, it can be argued that awareness played a significant role in not using electronic information resources. This is consistent with a study by Okwu and Madu (2022) that showed a great correlation between undergraduate students' awareness of electronic resources and their use. The majority of library users are aware of the most recent developments in electronic tools and services and the proper application of these resources

in the fields of education and research (Srinivasulu and Ravinder, 2022). A suggestion is that if students visited the library, the level of awareness of electronic information resources and awareness of search techniques would be improved.

5.4. Students' level of use of electronic information resources

The use of electronic information resources is an important factor in budget allocations within the library. When students use the resources procured by the library, it gives the decision-makers a sense of 'return on investment'. The quality of student academic work improves when students use peer-reviewed academic resources that the library curates. Moreover, it is pivotal that students are steered towards these resources at an early stage of their academic journey to ensure that by the time they get to their final year, they already understand the importance of using credible sources for their academic work. It was, therefore, important to establish the second-year students' level of use of electronic resources. One hundred and sixty-six (166) (71%) respondents indicated they used e-books on a daily basis, followed by databases that were used on a weekly basis by 163 (70%) of respondents. The least used resources by the majority of respondents were LibGuides 181(78%) and OPAC 180 (77.5%). Respondents indicated that they used these resources less than once a month. Interestingly, the least used resources are very critical in getting the students up to speed with how and where to access the desired resources. Also, some of the problems students experience could be mitigated by going through LibGuides.

These findings are in contrast with a study by Gupta (2022), whose findings revealed that Online Databases were the most frequently used by the majority, 77.55% of respondents. In contrast, e-books were only frequently used by 52.5% of students. Although the findings contrast, it is worth noting that Gupta (2022) focused on a population that can be considered more knowledgeable, the research scholars. It can be argued that the novice searcher, which is the student in this case, will opt for less sophisticated resources like the e-book. However, as time progresses and search techniques are acquired, the student will eventually opt for Online Databases.

5.5. Students' level of satisfaction with electronic information resources

To establish the level of satisfaction, it was essential to establish the level of importance of each electronic information resource and the benefits derived. Findings show that 171 (73.7%)

respondents considered e-books very important. On the other hand, databases were also regarded as important by 151(65%). The importance of a resource can be largely attributed to the satisfaction derived from its results. In this case, it can be argued that the students were more satisfied with e-books and databases. This finding affirms studies by (Sritharan, 2018; Gupta and Sharma, 2016), which found that respondents were more satisfied with subscription-based electronic resources.

However, no correlation was established between the respondents' demographic information and the level of satisfaction. This aligns with Habiba and Ahmed (2022), who also found that there is no significant difference in satisfaction levels between male and female respondents. OPAC 150 (64.6%) and LibGuides 147 (63%) were considered as not important by the respondents. It can therefore be posited that the satisfaction level was low concerning these two resources. This finding contradicts (Katabalwa and Mnzava, 2020; Anyim, 2020), who found that the majority of students used and viewed OPAC as important in satisfying their information needs. When asked about the benefits of using electronic information resources, 161 respondents (69%) indicated that the most important benefit they derive from using electronic information resources was "Easy/faster access". This benefit can be seen as a factor contributing to satisfaction with electronic information resources. Strangely, 151 (65%) respondents regarded "currency of information" as the less important benefit of electronic information resources. This contradicts the findings of Owushi and Mundi (2021), who found that students viewed the currency of information resources as a benefit that influenced their utilisation of library resources. Against this backdrop, it can be concluded that satisfaction with the resources is not based on the currency of information the resource contains.

5.6. Challenges experienced by the students when using electronic information resources

The purpose of this question was to determine the challenges that students experienced when utilising electronic information resources. The findings revealed slow internet connection as the most serious problem, with 142 (61%) respondents citing this problem. This finding is similar to the issues highlighted by postgraduate students in Somers (2015). Furthermore, the findings

corroborate Gumede (2021), who also found that the challenges students face when accessing electronic information resources are the challenges of slow internet access, lack of computers, and difficulty navigating the library website. In this study, the findings further showed that limited off-campus access was another challenge and 133 (57%) respondents cited this. The study did not establish what factors inhibited off-campus access to electronic information resources.

However, a study by Ambrose, Ogunbodede and Idubor (2021) on undergraduate students' use of electronic resources amid the COVID-19 pandemic lockdown found that the main inhibitors to off-campus access to electronic resources were erratic power supply and the high cost of data subscription. Though erratic power may also be a factor to second-year social science students, considering the power crisis that has engulfed the country, data cost, on the other hand, cannot be viewed as such since UKZN provides students with data for online learning on a monthly basis.

It was important to understand these problems to know what contributes to the non-utilisation, as it was equally important to know the benefits that influence the utilisation of electronic information resources. Hamutumwa (2014;167) is of the view that “most of these impediments faced by students have been shown to influence users” behavioural intention to either use electronic resources or not. The challenges have an impact on the perceived ease of use of electronic resources. Attitude towards electronic resources access is also affected by problems faced when accessing electronic resources.” Therefore, based on these findings, measures can be put in place to mitigate whatever challenges the students encounter when using electronic information resources.

While respondents indicated the most serious and least serious problems, it is important to note that 176 (75.8%) indicated that staff is not always available to help. A follow-up question was asked to gauge the student's level of skill when accessing electronic information resources. 69 (29.7%) respondents indicated that their skill level was beginner. This is in line with Obande, Osakwe, Ujakpa, Iyawa, Ikechukwu and Amunkete (2020), who revealed that a lack of advanced searching skills was an impediment to the use of electronic information resources by students. Akinbo and Omideyi (2022) discovered the same, highlighting ineffective searching skills as a challenge in the use of electronic information resources. When asked about the techniques that are employed when identifying relevant electronic articles, 86 (37.1%) indicated that they follow

citations and bibliographic references. These findings reiterate the importance of library user education programmes to empower students with the necessary skills to search, retrieve and use electronic information resources effectively.

5.7. Student perceptions towards electronic information resources

Students were further asked to state their views on the usefulness, ease of access and ease of use of electronic information resources. This question was key in understanding the factors behind the use and non-use of electronic information resources. People reflectively act by their perception; humans behave according to their perceptions. In this study, perception was viewed from the standpoint of usefulness, ease of access and ease of use. In the question aimed at determining the perceived usefulness of electronic resources, 79 (34.1%) respondents considered electronic information resources to be ‘very much useful’. These results are consistent with a study by Dubale (2019), where the majority of the respondents stated that they found electronic information resources to be useful. This forms a basis for understanding why students continue to use these resources. To support this, a study by Mollel and Mwantimwa (2019) revealed that the perceived usefulness of electronic resources influenced the majority of respondents to use them. Moreover, 32 (13.8%) in this study said electronic information resources were ‘not as useful as it is thought’. Only seven (3%) considered electronic information resources to be ‘not at all useful’.

The usefulness of a resource could be attributed to whether the student is able to find the desired information. The outcome will likely influence the students’ perception and eventually future use or non-use of the resource. Bakare, Bamigboye and Chiemenem (2015) found that students perceived electronic information resources as being useful for their research and that had a very high influence on the usage of these resources. It is also important to note that negative perception could be because of the challenges encountered when accessing electronic information resources and not only user information needs.

Another question was asked to establish the respondents’ perceptions on how easy it is to access electronic information resources. From the results, a notable 99 (42.7%) respondents indicated that they regarded electronic information resources as relatively easy to access. 68 (29.3%) considered electronic information resources as easy to access, while 50 (21.6%) were undecided (neutral).

Only 15 (6.5%) considered electronic information resources as not at all easy to access. The findings suggest that, in the grand scheme of things, electronic information resources are easily accessible to students. On the contrary, Mawere and Sai (2018) found that electronic resources were not easy to access due to only being available within the university network infrastructure. This, however, is not the case at the University of KwaZulu-Natal, as students are able to access the resources through the library's off-campus access channel.

The findings also contradict Mwamasso and Onyango (2020), who found that the majority of students perceived electronic information resources as not easily accessible due to a shortage of computers, computer knowledge, electricity and network challenges. Even though some of these challenges were also highlighted as impediments to access to electronic information resources in this study, it is important to note that it is only a minority of the population that had these sentiments. Furthermore, the number of students who considered electronic information resources as not easy to access is surprisingly low, considering that 38 (16.4%) indicated that they did not have sufficient skillset to access electronic information resources.

The last question was asked to establish perceptions about the respondents' perceived ease of use of electronic information resources. Respondents had to indicate the extent to which they regarded electronic information resources as easy to use. The findings revealed that 79 (34.1%) respondents perceived electronic information resources as 'relatively easy to use'. This finding is consistent with the result on the perceived usefulness of electronic resources, where the same number of respondents perceived electronic information resources as very much useful. Furthermore, it corroborates the findings presented by Abubakar, Issa and Ambali (2021), where the majority of respondents indicated that they find it easy to use electronic information resources, especially e-databases.

The study further revealed that interacting with e-databases does not require much mental effort. Interestingly, respondents in this study also indicated that databases were the second most important electronic information resource after e-books. Also, 63 (27.2%) respondents considered electronic information resources 'very much easy to use'. This suggests that the majority of respondents considered electronic information resources as both useful and easy to use. However,

the findings contradict Odu and Afebende (2015), whose study revealed that the majority of respondents regard electronic resources and services as difficult to use.

The different findings could be because the studies were conducted in different contexts, which may have other influencing external factors. Only 17 (7.3%) perceived electronic information resources as ‘not at all easy to use’. Given these findings, it is evident that students have positive perceptions of electronic information resources, which is why they utilise them. Also, the identified negative perceptions from the minority give an opportunity to educate students further and equip them with the necessary skills to access, search and retrieve electronic information resources.

5.8. Chapter Summary

The findings of the study provided in Chapter Four were discussed in this chapter. The research objectives provided the basis for the discussion. The chapter's main topics included awareness, use, satisfaction, challenges, and perceptions towards electronic information resources. It was discovered from the findings that most of the respondents view electronic information resources as important and beneficial to the academic learning journey. Moreover, it became apparent that respondents have positive perceptions about electronic information resources, which is why they utilise them. The next chapter will consist of the summary, conclusions, and recommendations of the study.

Chapter Six: Conclusions and Recommendations

6.1. Introduction

The study aimed to investigate the perceptions of second-year social science students about electronic information resources. The previous chapter discussed and explained the findings of the study that related to the level of awareness, use, satisfaction, and challenges experienced by the students when using electronic information resources. The chapter also discussed perceptions towards electronic information resources. This chapter presents the summary of findings, conclusions, and recommendations. The summary, conclusions and recommendations are guided by the study objectives which are:

- To determine students' level of awareness of electronic information resources.
- To establish the students' extent of use of electronic information resources.
- To evaluate students' level of satisfaction with electronic information resources.
- To determine the challenges experienced by the students when using electronic information resources.
- To determine student perceptions towards electronic information resources.

6.2. Summary of the study

Chapter One comprised the introduction, background to the study, problem statement, aims, research objectives and research questions, scope and delimitations, broader issues investigated, and the significance of the study. The chapter also briefly outlined the theoretical framework underpinning the study and the research methodology adopted.

In Chapter Two, literature that is relevant to the perceptions and use of electronic information resources in academic libraries was reviewed. The chapter started with discussions on the types of electronic information resources, the use of electronic resources by students and the role of the library in promoting electronic information resources. A discussion on use and impact followed this, as well as determinants of use and barriers to the use of electronic resources. Accordingly,

this chapter looked at the extent to which various studies have investigated the use of electronic resources.

The research methodology used in conducting this study and justifications for methodological choices were discussed in Chapter Three. It also explained how data was collected to answer the research questions of the study. The chapter ends with a discussion of the ethical considerations taken in conducting the study.

Chapter Four provided an interpretation of the findings based on the analysis of the collected data. It was divided into two parts. The first part reported on the profile information of the respondents, whereas the second part comprised the results pertaining to the use of electronic information resources. It also discussed the findings concerning the relevant literature.

Chapter Five provided a discussion of the findings of the study presented in the previous chapter. The research objectives provided the basis for the discussion. The chapter's main topics included awareness, use, satisfaction, challenges, and perceptions towards electronic information resources. It was discovered from the findings that most of the respondents view electronic information resources as important and beneficial to the academic learning journey. Moreover, it became apparent that respondents have positive perceptions about electronic information resources, which is why they utilise them.

6.3. Summary of findings

The findings are summarised below in accordance with the study's objectives.

6.3.1. Students' level of awareness of electronic information resources

This study found that the majority of second-year students (78.6%) indicated that they used electronic information resources offered by the library. In comparison, 21.4% of respondents did not utilise electronic information resources. The level of use of electronic information resources is equitable to the level of awareness because one cannot use that which they are not aware of. However, the non-use cannot solely be attributed to unawareness, as other factors may influence this decision. Out of the 21.4% that indicated that they did not use electronic information resources, 18.8% indicated that they were not aware of the presence of these resources. Other reasons cited

for the non-utilisation were not knowing how to access them off campus, unsatisfactory results, no time to search during library hours, did not require the use of electronic information resources and no staff to assist. The majority of respondents (28%) indicated that they found out about electronic information resources mainly from their lecturers. Herein lies an opportunity for the library to also include lecturers in their programs so that they can pass this information down to students. The literature also recommended that librarians must educate academics on e-resources so that they could filter through their knowledge about e-resources to their students (Somers, 2015). It can be concluded that awareness of e-resources is arguably one of the most important factors influencing electronic information resource use. As most institutions of higher learning have made inroads towards blended learning, electronic resources are central to the success of this teaching and learning approach.

The study can conclude that librarians must adopt a pragmatic approach in their library workshops or training to ensure that they have all the bases covered. There needs to be dedicated training for lecturers so that they are in a position where they can advise students on the use of electronic information resources the same way that librarians would. Moreover, the workshops and training being offered to students also need to be accessible in channels where students spend most of their time, such as the social media pages of the university and the library. Infographics outlining the method of accessing electronic information resources, especially those accessible from off-campus, should also be available on the university's social media pages.

6.3.2. Students' level of use of electronic information resources

It has become apparent that electronic information resources are an important part of the student's learning journey. Electronic books (71%) and databases (70%) were found to be the most used resources by students. The high usage of e-books could be attributed to the fact that they are the easiest to read and identify, whereas, with journal articles, one must understand research to determine the appropriate article. Furthermore, databases could be supposed to be trailing behind e-books because they are the source of e-books. It also came out that LibGuides (78%) and OPAC (77.5%) were the least used resources by students. LibGuides are important in orientating students with the workings of the library website and how and where to access electronic information resources.

On the other hand, the OPAC helps patrons know whether library resources are available. These resources are crucial if one wants to find resources the library offers. This is a factor that may be contributing to the challenges that the students encounter. There needs to be an effective way of instilling the importance of these resources, especially LibGuides, because proficiency in electronic information resources stems from mastering what is outlined in LibGuides. Library programmes must also put emphasis on the importance of e-journals as students (71%) indicated that they use them monthly. Electronic journals are very rich with updated academic literature. It is, therefore, important that this is instilled in students to improve their academic work.

6.3.3 Students' level of satisfaction with electronic information resources

Satisfaction is one of the key influencers in the utilisation of electronic information resources. If one does not derive any benefit from a resource, the level of satisfaction is likely to be low. Moreover, if benefits are derived, the level of satisfaction is expected to be high. The level of satisfaction is directly linked to the benefits derived from using the resources, which subsequently determines how important the resource is to the user. E-books (73.7%) were found to be very important to students, and databases (65%) were also regarded as important. These resources were considered important because of the benefits students derived from them.

It was indicated by 69% of students that the most important benefit they derive from using electronic information resources was "Easy/faster access". In this case, it can be argued that the students were more satisfied with e-books and databases because of ease of access. Some of the highlighted benefits were that students could email, print and save results. Moreover, the availability of full-text materials was seen as a benefit and this links to databases. An opportunity exists for librarians to capacitate students to fully explore the databases possible and not just use them for e-books. The capacitation should extend beyond just exploring databases to selecting up-to-date information. This is in response to the 65% who regarded "currency of information" as the less important benefit of electronic information resources.

The conclusion is that satisfaction with the resources is not based on the currency of information the resource contains. However, it is imperative that students, as they do research for their studies, understand the importance of using current information as references to their arguments. Furthermore, making use of current information will not only help students improve their work

but will also make them better researchers who are able to keep up with the trends and new information in their field.

6.3.4. Challenges experienced by the students when using electronic information resources

In as much as the use of electronic information resources is very high among students, there are various problems that the respondents encountered when using electronic information resources. The findings of the study demonstrated that slow internet connection is the most serious problem, with 61% of students citing this problem. The results further revealed that limited off-campus access was another challenge cited by 57% of students. Some of the challenges cited include printing-related problems, staff not always available to help, not sure which database to use and password requirements. "Logging in" was cited as the least serious issue they encountered when using electronic information resources. It was critical to fully comprehend these issues to understand what leads to non-utilisation. It was equally important to understand some of the factors that may be contributing to these challenges. Understanding these factors would enable librarians to devise targeted remedial measures aimed at addressing each factor that manifests itself as a challenge. Some respondents indicated they had trouble with developing a search strategy and difficulty using the software interface when they tried to access resources. Findings from follow-up questions revealed that 29.7% of students had beginner-level skills when accessing electronic information resources, indicating that they follow citations and bibliographic references. It was further revealed that students follow citations and bibliographic references when identifying the relevant resources.

It is worth noting that the library runs programmes aimed at addressing some of the problems raised by students. However, it was revealed that 13.4% had not attended any library programme. The reasons provided for non-attendance are "There has never been a webinar for this purpose as far as I'm aware" and "I did not have the time to attend." This calls for the library to increase student awareness of the programmes offered to ensure that no student is left behind because they have no knowledge of library workshops. Moreover, such programmes should be available through multiple platforms to reach a much wider student population.

6.3.5. To determine student perceptions towards electronic information resources

People are more inclined to use a resource about which they have positive perceptions. This has been the yardstick used to understand whether various perceptive factors have any bearing on the utilisation and non-utilisation of information resources. The results revealed that the majority of students considered electronic information resources to be useful for their academics. Only 3% perceived electronic information resources as not useful. This could be linked to the challenges students face when accessing and using electronic information resources. The findings revealed the challenges that students face in these two instances. Therefore, these challenges must be addressed to improve students' perceptions of these resources. For one to consider an information resource useful, it must have the information they require. Moreover, the information should satisfy their information need.

On the question of perceived ease of access, the majority (72%) of students considered electronic information resources to be easily accessible. Only 6.5% regarded electronic information resources as not easily accessible. Such a figure is not a cause for concern compared to those who perceived electronic information resources as easily accessible. However, because the figure is based on a sample of the population, the generalisation is that there may be a much bigger access issue in the wider student population. It is for this reason that access challenges must be addressed. As indicated in Chapter Five, 29.7% had beginner-level skills to access electronic resources. Some access difficulties include developing a search query, using the software interface, limiting search results, and lacking computer skills. These challenges have the potential to influence perceptions of access. In this case, it can be argued that there is a link.

The findings also revealed that 34.1% of students perceived electronic information resources as relatively easy to use. Only 17 (7.3%) perceived electronic information resources as 'not at all easy to use'. The minority's stated negative perceptions provide an opportunity to better educate students and provide them with the required abilities for accessing, searching, and retrieving electronic information resources.

6.4. Conclusions

Libraries will continue to have an important role to play in providing timely access to electronic information resources to aid teaching and learning. This includes providing access that is free of geographic limitations and conveniently accessible. As the times change and students become more accustomed to technology, information format preferences also change. As discovered in this study, second-year social science students have a high level of awareness and usage of electronic information resources. The high level of use is attributed to the benefits that come with these resources. Some of these benefits include easy access, printability, availability of full text, and access at any time of day.

It emerged that eBooks and databases were considered the most important and most used of the electronic resources offered by the library, which directly translates to high levels of satisfaction with these resources. The fact that the OPAC and LibGuides were considered not important was quite worrisome as these are the key resources that are meant to assist the students with familiarity with the materials available and the process of accessing these materials. The most cited challenges to the use and access of electronic information resources were slow internet connection, limited off-campus access, developing a search query, and using the software interface. This presents an opportunity for the library to equip students as early as the first year of study with digital literacy skills needed to effectively access, retrieve, and make use of electronic information resources.

The findings have successfully answered the research questions and objectives of the study, subsequently answering the main question regarding the perceptions of students about electronic information resources. Overall, student perceptions were positive, with students indicating that electronic information resources were useful, easy to access and easy to use. In instances where negative perceptions were identified, it is suggested that the library works on mitigating the challenges that students face when accessing and using electronic information resources as opposed to tackling perceptions head-on. This is because the negative perceptions emanate from students' challenges when accessing and using electronic information resources. Therefore, to deal with the challenge, which is the root cause of perception, is to deal with the perception itself.

6.5. Recommendations

Based on the findings and the conclusions drawn, more especially the aspects that pertain to the challenges and negative perceptions identified in the study, the following recommendations are put forward.

- The library should conduct targeted user education programmes. The programmes should be aimed at addressing specific challenges that have been identified as opposed to having a blanket approach to training.
- There should be ongoing training on electronic information resources in the first year of the student's academic journey. These trainings should focus on identifying relevant databases and journals as well as the formulation of search strategies. This will ensure that students learn the habit of using credible electronic sources and the skill to navigate the platforms from which these resources are found.
- Training on information evaluation techniques should be conducted to equip the students with the know-how to identify information that is relevant to their needs. Moreover, this should also be aimed at instilling the importance of the currency of information when trying to answer certain questions that pertain to their academic work.
- The library should adopt a pragmatic approach to its marketing initiatives aimed at raising awareness of electronic information resources. Marketing initiatives should run on multiple platforms where the student population can be found. This includes making use of social media, posters, recorded podcasts, and other promotional mediums to promote the use of electronic information resources.
- The library should also give regular training and workshops to Lecturers as they interact with students daily and are better positioned to impart the knowledge and skills that the library aims to impart to students.
- There should be strong communication channels for students to interact with library personnel when they encounter problems and need assistance, especially when they cannot be physically in the library.

6.6. Suggestions for further research

This study focused on second-year social science students and provided insight into their perceptions and usage of electronic information resources. Furthermore, other studies could be extended to second-year students from other programmes. Further studies could build on this and focus on understanding perceptions at different levels of study to investigate how perceptions change over time. Lastly, another area of research could be the effectiveness of library user training in equipping students with digital literacy skills essential for accessing and using electronic information resources.

6.7. Summary of the chapter

Being the last, this chapter provided a brief overview of the foregoing chapters. The objectives that guided the study and the main findings were also revisited. The conclusions and recommendations based on the main findings were provided. The chapter ended with suggestions for further research.

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Appendices

Appendix 1: Gatekeepers Letter



14 November 2022

Joyfull Bongumusa Jalubane (SN 222094817)
School of Social Sciences
College of Humanities
Pietermaritzburg Campus UKZN
Email: 222094817@stu.ukzn.ac.za [REDACTED]

Dear Joyfull

RE: PERMISSION TO CONDUCT RESEARCH

Gatekeeper's permission is hereby granted for you to conduct research at the University of KwaZulu-Natal (UKZN), towards your postgraduate degree, provided Ethical clearance has been obtained. We note the title of your research project is:

"Second-Year Social Science students' perceptions of electronic information at the University of KwaZulu-Natal."

It is noted that you will be constituting your sample as follows:

- With a request for responses on the website. The questionnaire must be placed on the notice system <http://notices.ukzn.ac.za>. A copy of this letter (Gatekeeper's approval) must be simultaneously sent to (govenderlog@ukzn.ac.za) or (ramkissoob@ukzn.ac.za).

Please ensure that the following appears on your notice/questionnaire:

- Ethical clearance number;
- Research title and details of the research, the researcher and the supervisor;
- Consent form is attached to the notice/questionnaire and to be signed by user before he/she fills in questionnaire;
- gatekeepers approval by the Registrar.

You are not authorized to contact staff and students using the 'Microsoft Outlook' address book. Identity numbers and email addresses of individuals are not a matter of public record and are protected according to Section 14 of the South African Constitution, as well as the Protection of Public Information Act. For the release of such information over to yourself for research purposes, the University of KwaZulu-Natal will need express consent from the relevant data subjects. Data collected must be treated with due confidentiality and anonymity.

Yours sincerely

[REDACTED]

Dr KE CLELAND: REGISTRAR

Appendix 2: Ethical Clearance Certificate



23 November 2022

Joyfull Bongumusa Jalubane (222094817)
School Of Social Sciences
Pietermaritzburg Campus

Dear JB Jalubane,

Protocol reference number: HSSREC/00004910/2022

Project title: Second-year social science students' perceptions of electronic information resources at the University of KwaZulu-Natal

Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 19 October 2022 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 23 November 2023.

To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Research Ethics Council (REC-040414-040).

Yours sincerely,



Appendix 3: Consent Form

Informed Consent Document

Dear Participant,

My name is Joyfull Bongumusa Jalubane (*student no:222094817*). I am a Masters candidate studying at the University of KwaZulu-Natal, Pietermaritzburg Campus. The title of my research is: *Second Year Social Science students' perceptions of electronic information resources at the University of KwaZulu-Natal*. The aim of the study is to investigate the perceptions of second year social science students about electronic information resources offered by the UKZN library. The study seeks to establish the extent of use and perceptive factors that influence the use of electronic information resources. I am interested in interviewing you so as to share your experiences and observations on the subject matter.

Please note that:

- The information that you provide will be used for scholarly research only.
- Your participation is entirely voluntary. You have a choice to participate, not to participate or stop participating in the research. You will not be penalized for taking such an action.
- Your views in this survey will be presented anonymously. Neither your name nor identity will be disclosed in any form in the study.
- The survey will take about a maximum of 15 minutes.
- The record as well as other items associated with the interview will be held in a password-protected file accessible only to myself and my supervisors. After a period of 5 years, in line with the rules of the university, it will be disposed by shredding and burning.
- If you agree to participate please sign the declaration attached to this statement (a separate sheet will be provided for signatures)

I can be contacted at: School of Social Sciences, University of KwaZulu-Natal, Pietermaritzburg Campus, Scottsville, Pietermaritzburg. Email: jalubanebongumusa@gmail.com Cell: [REDACTED]

My supervisor is Dr. Siyanda Kheswa who is located at the School of Social Sciences, Pietermaritzburg Campus / Howard College Campus, Durban of the University of KwaZulu-Natal. Contact details: email Kheswa1@ukzn.ac.za. Phonenummer: 033 260 6987

The Humanities and Social Sciences Research Ethics Committee's contact details are as follows: University of KwaZulu-Natal, Research Office, Email: HSSREC@ukzn.ac.za

Thank you for your contribution to this research.

Appendix 4: Declaration Form

DECLARATION

I..... *(full names of participant)* hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participating in the research project.

I understand that I am at liberty to withdraw from the project at any time, should I so desire.

I understand the intention of the research. I hereby agree to participate.

I consent / do not consent to have this interview recorded (if applicable)

SIGNATURE OF PARTICIPANT

DATE

.....

Appendix 5: Questionnaire

SECTION A: PROFILE OF THE RESPONDENT

Q.1. Gender:

Male	Female
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Q.2. Age:

20-25 years	26-30 years	31-35 years	36-40 years	40 and above
-------------	-------------	-------------	-------------	--------------

Q.3. Campus:

Howard	Pietermaritzburg
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Section B: Use of Library

Q.4. On average, how often do you visit the Library?

Never	Rarely	Monthly	Fortnightly	Weekly	Daily
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II. INFORMATION REGARDING ELECTRONIC RESOURCES

Q.5. Have you used any of the e-resources provided by the library?

Yes	No
-----	----

Q.6. If you answered “No” to the above question, what are your main reasons not using e-resources? (please tick all those that apply)

No access to computers	
Not aware of presence of these resources	
No time to search during library hours	
Do not know how to access off campus	
No staff available to assist	
Did not require use of e-resources	
Unsatisfactory results in accessing	
Other (please specify) _____	

If you have answered No to question, please do not go further. Thank you for completing all the above questions.

Q.7. If you answered Yes to question 5, which e-resources have you used and how often you use these e-resources? (Please tick all those that apply)

	Daily	Weekly	Monthly	Less than once a month
OPAC				
e-Books				
Databases				
e-Journals				
LibGuides				
Other (please specify)				

Q.8. Please indicate the level of importance of each e-resources below

	Not important	Less important	Not sure	Important	Very important
OPAC					
e-Books					
Databases					
e-Journals					
LibGuides					
Other.....					

Q.9. From the above list of e-resources, which do you use most frequently? (Please rank in order from the most frequently used (1) to the least (5))

OPAC	
e-Books	
Databases	
e-Journals	
LibGuides	
Other (specify)	

Q.10. Find below some of the benefits of using e-resources. Please rank them from the most important (1) to the least important (5).

Easy / faster access	
Can email, save, print results	
Availability of full-text	
Access any time of day	

Currency of information	
Available from desktop	
Any other benefits? (Please specify)	

Q.11. On the list below; please indicate the main problems faced while using e-resources. (1) for the most serious to (8) for the least serious.

Logging in	
Password requirements	
Not sure which database to choose	
Difficulties in searching	
Staff not always available to help	
Printing	
Limited off-campus access	
Slow connection	
Any other problem/s (Please specify)	

Q.12. Where do you access these e-resources from?

Library	
LAN	
Remote	

Q.11. Have you attended any library user education programs on the use of Library electronic resources?

Yes	No
-----	----

If 'No', please explain why.

--

Q.12. How did you find out about these e-resources? (please tick)

Library user education program	
Library guides	
Library webpage	
Lecturers	
Friends	

Q.13. Do you have sufficient skills to access e-resources?

Yes	No
-----	----

If 'No', which of the following difficulties do you experience (you may tick more than one)?

Developing a search strategy	
Using the software interface	
Limiting search results	
Lack general computer skills	

Q.14. How would you rate your level of skill with accessing and using electronic resources?

Beginner	Intermediate	Advanced
----------	--------------	----------

Q. 15. How do you identify relevant electronic articles? (You may tick more than one response)

Browsing through recent issues	
Searching bibliographic databases	
Following citations, bibliographic references	
Relying on alerting services	
Relying on the library webpage or library staff	
Relying on library staff or academics	

Q.16. To what extent do you find electronic resources useful? (Please tick)

Very much useful	
Useful	
Only nominally useful	
Not as useful as it is thought	
Not at all useful	

Q.17. To what extent to you find electronic resources easy to access? (Please tick)

Easy to access	
Relatively easy to access	
Neutral	
Not at all easy to access	

Q.18. To what extent do you find electronic resources easy to use? (Please tick)

Very much easy to use	
Relatively easy to use	
Neutral	
Not at all easy to use	

Q.19. Which of the following would encourage you to use electronic resources? (Please tick)

A navigable library website	
Computer literacy training	
Literature searching training	

Thank you for your participation

