

THE USE OF PRINT LIBRARY MATERIALS IN THE ERA OF DIGITAL RESOURCES
IN INSTITUTIONS OF HIGHER LEARNING IN NAMIBIA: A CASE STUDY OF THE
UNIVERSITY OF NAMIBIA (UNAM) AND NAMIBIA UNIVERSITY OF SCIENCE
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ABSTRACT

The study investigated the use of print library materials in institutions of higher learning in Namibia. The main objective was to establish the extent to which students prefer print resources in the digital era. A mixed method research approach was adopted, with the use of a self-administered survey questionnaire and a semi-structured interview guide to gather data from the participants. The population comprised of the University of Namibia and Namibia University of Science and Technology as well as the respondents, this included students and librarians. A stratified, quota sampling technique was used to select 370 students, and purposive sampling was used to select two librarians to participate in the study. The Statistical Package of Social Sciences (SPSS) was employed to obtain descriptive statistics for quantitative data while qualitative data was analysed manually through content analysis. The study found that students preferred both print and electronic resources; however, most of them used print as compared to electronic resources. The study further found that students preferred print resources for the following reasons: print resources are easy to locate; convenient to read from; easy to read from; less eye-straining; more reliable; easy to note from as well quality graphics, photos and tables. Students cited the following challenges when using print resources: difficulty in locating materials; outdated materials; missing library materials on the shelves; few copies in the library and library materials not meeting their information needs. None of the Universities investigated had an operational guideline on the issue of acquiring materials that were available in the dual format. The study found that the Universities were purchasing more print books as compared to electronic books. Moreover, the acquisition of electronic journals had increased as compared to print journals. The study concluded that in the era of digital resources, most of the students still prefer print resources. The study provided the following recommendations: establishment of appropriate guidelines to accommodate dual formats as well as considering selective duplication of information formats in certain disciplines.

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LIST OF ABBREVIATIONS AND ACRONYMS

DTPB	Decomposed Theory of Planned Behaviour
ETSIP	Education and Training Sector Improvement Programme
FLA	Finnish Library Association
HPP	Harambee Prosperity Plan
ICT	Information and Communication Technology
GRN	Government of the Republic of Namibia
MCA	Millennium Challenge Account
MBEC	Ministry of Basic Education and Culture
MBESC	Ministry of Basic Education Sports and Culture
NLAS	Namibia Library and Archive Services
OPAC	Online Public Access Catalogue
TAM	Technology Acceptance Model
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action
NUST	Namibia University of Science and Technology
UNAM	University of Namibia
UREC	UNAM Research Ethical Committee
USA	United States of America
WACS	West Africa Cable System

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DECLARATION

I, Foibe Ndamona Shaambeni, hereby declare that this study is my own work and is a true reflection of my research, and that this work, or any part thereof has not been submitted for a degree at any other institution.

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Name of Student	Signature	Date
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CHAPTER 1: INTRODUCTION

1.1 Orientation of the study

The 21st century, also known as the digital era, is dominated by digital information due to the explosion of Information and Communication Technology (ICT) (Raju, 2014). Accordingly, this development has brought changes to the information sector. Ranjan (2014) observes that digital technology has changed the way people access information as most of the information is now available in electronic format, which is easily accessible from the World Wide Web (WWW) using a variety of electronic devices and gadgets. The availability of ICT enables information that was earlier produced using print to be delivered in electronic format. Hence, electronic resources are assumed to have largely replaced the use of print resources in the 21st century (Ranjan, 2014), however, print resources are still currently visible in most of the libraries.

Print resources entail the traditional information sources such as books, journals, magazines and newspapers while electronic resources include information in digital format, ranging from portable document format (PDF) to an aggregate database (Zha, Zhang & Yan, 2014). It is the responsibility of the libraries to ensure that users are provided with information sources of their choice. Zha et al. (2014) state that

“with the development of digital libraries over the last three decades, university libraries can provide their users with the access to a diversity of electronic resources which usefully complements print collections and have become important tools for research and study” (p. 347).

King (as cited in Ranjan, 2014) observes that in the digital era, the use of print resources has reduced tremendously in comparison to the pre-Internet era. However, despite these modern-day developments, a study with distance students at UNAM, Hamutumwa (2014) discovered that the majority of the students actually preferred print resources. Katjihingua (2001) in a study titled “off-campus library services for Namibia distance learners” also found that the

majority of distance students preferred print materials. Similarly, a survey conducted by Mawindo and Hoskin (2008) of undergraduate students at the University of Malawi College of Medicine also discovered that the majority of the students used print resources more than electronic resources. However, studies in the United States of America (USA) paint a different picture. A survey by Applegate (2008) discovered that in the USA, academic libraries had seen a reduction of print resources transactions by 2.2 %. Bradford (2005) and Colson (2007) on a study on reference resources in the USA, reached the same conclusion when they discovered that the use of print reference materials was decreasing in academic libraries.

Libraries in institutions of higher learning, termed academic libraries, "are charged with the responsibility to acquire, organise and disseminate resources and services to the teaching, research and recreational needs of the academic community" (Asogwa, Ugwu, & Idoko, 2016, p.31). Therefore, the access to sufficient academic library services is vital for student's academic excellence and the educational institution at large Gibbs (2000). Hence, academic libraries are moving away from rendering traditional services by embracing ICTs to ensure efficient service delivery (Liu, 2006). Based on the above facts, it is evident that in the digital era, academic libraries are facing the daunting task to balance their collection so that users can have a variety of information sources in their preferred format.

The University of Namibia (UNAM) main campus is located in Windhoek, the capital city of Namibia. The University has six faculties at the main campus, with a student population of 11 251 enrolled in 2017. It boasts a library which provides information sources in both print and electronic format to meet the needs of the registered students, academic and administrative staffs, hence, contributing to the common goal of the University. Even though Katjihingua's (2001) and Hamutumwa's (2014) studies of distance students indicated that they preferred print resources as compared to electronic ones, the University Library has spent quite a significant amount of money to acquire online databases which consist of e-books and e-journals

(Hamutumwa, 2014). The Library also continuously acquires traditional resources such as books, journals, magazines and others. Most of the print resources are found on the open shelves, special collection, short loan and periodical section in the library.

The Namibia University of Science and Technology's (NUST) (formerly Polytechnic of Namibia) main campus is located in the centre of Windhoek. NUST comprises of several external study centres across the country. The University consists of six faculties and offers both post and undergraduate qualifications in different areas of studies. At the time this study that was conducted in 2017, NUST had a student population of 8706. The NUST Library was established in 1995 to provide information services to the NUST community. It has a rich collection of journals, books, and audiovisual materials. The Library also subscribes to different online databases which comprise of e-books and e-journals as it heeds the call for libraries to embrace ICTs and keeping abreast with the changing needs of their users. The fact that both UNAM and NUST libraries provide information in both print and electronic resources, a user study was necessary to ascertain the use of each information format.

1.2 Statement of the problem

It is a fact that the explosion of digital content has influenced the way students use print resources and traditional libraries. Academic libraries are faced with daunting responsibility to acquire the best appropriate format. Mawindo and Hoskin (2008) argue that users in the digital age are confronted with a choice between print and electronic resources, depending on what is available to them. However, where an information source is provided in both formats users may choose any of the formats to consult. Studies in Africa (Asogwa et al., 2016; Hamutumwa, 2014; Mawindo & Hoskin, 2008) seem to suggest that students prefer print to electronic resources. Studies from other parts of the world (Applegate, 2008; Bradford, 2005 and Colson 2007) indicate that electronic resources are progressively replacing print resources as most of the users prefer electronic resources. The Namibian studies by Hamutumwa (2014) and

Katjihingua (2001) concluded that print resources were used more frequently than electronic resources. However, these studies were limited to distance students whose situation might have been different from students who are always present on campus. It can, therefore, be argued that there is rather limited conclusive evidence regarding the issue of format preference among students, hence this study sought to investigate the use of print library materials in the era of digital resources among students at UNAM and NUST.

1.3 Objectives of the study

The main objective of this study was to investigate the use of print resources in the era of digital resources in institutions of higher learning in Namibia. The sub-objectives were:

1. To determine the extent to which print format is preferred by students;
2. To establish reasons for the possible preference of print resources in the digital era;
3. To establish challenges encountered by students when using print format in the digital era;
4. To find out about collection development policies regarding print resources in these libraries; and
5. To formulate meaningful recommendations with regard to the improvement of library services concerning the provision of print resources in the digital era.

1.4 Significance of the study

The findings of this study on the use of print library materials in the era of digital resources in institutions of higher learning in Namibia could inform policy and practice regarding collection development and provide a better understanding on the format preferred by students in Namibian institutions of higher learning. According to Palmquist and Kim (1998), libraries can excel in building and maintaining a balanced collection, provided the librarians understand the needs of the users and how the information sources are being used. The findings also add to

the existing body of knowledge which may be useful to researchers who are interested in this topic.

1.5 Limitations of the study

Limitations of the study are defined "as constraints or limits in your research study that are out of your control, such as time, financial resources, access to information, and so on" (Enslin, 2014, p. 275). Limitations occur due to changes in conditions during the study, and the researcher may be required to redefine the scope of the study (Enslin, 2014). One of the limitations of this study is that the researcher was an employee of one of the institutions, which were investigated and was acquainted with some of the participants, which could raise some questions of ethics. However, the researcher remained objective and did not allow subjective beliefs to affect the gathering and interpretation of the results.

1.6 Delimitation of the study

The delimitation of the study is a result of the choices made by the researcher about the study. This entails the decision of the purpose of the study, the research questions, the variable tested and the population chosen (Enslin, 2014). This study only focused on UNAM and NUST main campuses, which means any academic library outside the main campuses of these two institutions was not part of the study. The study concentrated on the main campuses because of the large population of students and variety of courses unlike the satellite campuses, which are subject specific with a small population of students. This enabled the researcher to get the view of students from different fields of studies.

1.7 Context of the study

In the digital era, almost every country is striving to become an information society, and most of the countries around the globe are devising initiatives to aid in developing and strengthening their information systems to enhance their economic and social development (Munukka, 2005).

Since Namibia gained independence in 1990, there has been an improvement concerning ICT infrastructure development compared to other African countries (Isaacs, 2011). According to Isaacs (2011), an improvement of the ICT infrastructure in Namibia is attributed to different policies and initiatives that were adopted and implemented mainly in the education sector. The Government of the Republic of Namibia's (GRN) long-term vision is embedded in its Vision 2030, which serves as the basis for planning and projecting the country's future. As stipulated in the Vision 2030 document, Namibia has vowed to attain a knowledge-based economy by investing in ICT infrastructure to improve socio-economic development as well as integrating ICT in education to accelerate economic and personal growth (Munukka, 2005). The GRN has also acknowledged the role of ICT in libraries as an enabler of lifelong learning. However, the GRN has also admitted the fact that most of the libraries in Namibia do not have well-developed ICT infrastructures and this may slow down the Namibian vision of becoming a knowledge-based economy (Office of the President, 2004). As far back as 2004, the Office of the President acknowledged that most of the libraries in Namibia did not have well-developed ICT infrastructure which could slow down Namibia's vision of becoming a knowledge-based economy (Office of the President, 2004). To date, the situation has improved because Namibia has seen an improved library service delivery with the help of the MCA, which has assisted in constructing new libraries, both at the schools and in the communities. These libraries are described as the state-of-the-art with numerous information sources for a wide range of age groups as well as free Internet access (MCA Namibia, 2014).

For this reason, the GRN has devised policies and initiatives to aid in developing and implementing ICT in the country. However, for this study the following policies were discussed: the ICT Policy for Education, the Education and Training Sector Improvement Programme (ETSIP), Information for Self-Reliance and Development - A policy framework

for libraries and information agencies for Namibia Ministry of Education, the IT Policy, Harambee Prosperity Plan as well as the Vision 2030.

1.7.1 ICT Policy for Education

The ICT policy in education was adopted in 2005 as a replacement for the National Policy for ICT in Education in Namibia, and it aims to provide clear guidance to the Namibian stakeholders in preparation of meeting the challenges of the 21st century (Isaacs, 2011). This policy was framed by the then Ministry of Basic Education Sport and Culture (MBESC) to respond to vision 2030 of Namibia (MBESC, 2005). Namibia was among the first countries to develop the ICT for Education Policy in Africa, which emphasises on investing in ICT integration in education by recognising the role of ICT as a tool to aid and enhance the delivery of education in Namibia (MBESC, 2005). Since the inception of this policy, the country has seen a tremendous improvement in the Namibian education system in a sense that most of the schools and institutions of higher learning in Namibia have computer laboratories with access to the Internet connection (Isaacs, 2011). The adoption of the ICT policy led to the development of the implementation framework based on ICT in Education Policy, which was reviewed in the years 2008-2009. It was found that there has been a substantial sign of progress of the establishment of ICT infrastructures in Namibia. With this policy, Namibia has seen the establishment of National Education Technology Service and Support (NETSS), which serves as a national helpdesk for technical support (Isaacs, 2011). In addition, the adoption of the ICT policy for education has led to the amendment of the curriculum to accommodate ICT literacy, computer studies as well as basic information science subjects to enable learners from primary to secondary education level to acquire ICT skills (Ministry of Education, 2015).

1.7.2 The Education and Training Sector Improvement Programme (ETSIP)

The ETSIP was implemented by the Ministry of Education in Namibia to represent the training and education sector and was necessitated by a call for Namibia to be a knowledge-based

society as stipulated in vision 2030 (ETSIP, 2007). The aim of this 15-year strategic framework was to improve the quality of education from childhood development to higher education institutions in Namibia, cutting across issues such as the control of HIV / AIDS, poverty reduction and good governance as well as increasing access to ICT to enhance learning and administration in the country (Isaacs, 2011). The ETSIP has also embedded the critical roles of libraries in its objectives and reported that the role of libraries and information centres in the education and knowledge creation as well as public administration is one of the key indicators if Namibia transitions to a knowledge-based economy by 2030 (Ministry of Education (MOE), 2007). On this note, the GRN has collaborated with the USA government through the Millennium Challenge Account (MCA) to assist in revamping the three main priorities namely, education, tourism and agriculture (MCA, 2014). The MCA has assisted by upgrading the competency levels of students in Namibia by improving schools and providing them with libraries, computer laboratories, science laboratories among many others (MCA, 2014). In 5 years, the MCA Namibia managed to construct and upgraded 31 libraries as well as 48 schools fully equipped with textbooks and free Internet connectivity (MCA Namibia, 2014). Following the implementation of ETSIP and the partnership with the MCA, it is evident that Namibia has made undeniable progress in attaining a knowledge-based economy as proposed in Vision 2030.

1.7.3 Information for Self-Reliance and Development: A Policy Framework for Libraries and Allied Information Agencies for Namibia

The Information for Self-Reliance and Development was formulated way before the Vision 2030 by the MBESC to align libraries and information agencies to the first National Development Plan (NDP1) and was approved by the Cabinet of Namibia in September 1997 (Ministry of Basic Education and Culture (MBEC), 1997). The goals of the NDP1 are to revive and sustain economic growth, create employment opportunities, alleviate poverty as well as

reduce inequalities in income. With regard to the economic growth aspect of the NDP1, this policy framework has provided guidelines on how libraries should provide technical, economic data and information for research that may be required by Namibian lawmakers to make informed parliamentary and economic decisions for sustainable development (MBEC, 1997). Additionally, the policy provided a basis for understanding that empowering the previously disadvantaged Namibian citizens with ICT skills and education opportunities is the foundation of alleviating poverty and this, in turn, will narrow the gap of income inequality (MBEC, 1997). This policy framework also addressed the issue of access, quality, democracy and equity, which implies that access to basic information services, will be freely extended to every Namibian citizen, and this entails free Internet access and free computer usage. According to this policy framework, the GRN has made promises to invest in supplying Namibian libraries with information technologies, which will optimise the use of library resources as well promoting ICT literacy in the country (MBEC, 1997). Furthermore, the GRN also declared to provide funding for developing and improving libraries infrastructure.

The development of this policy framework enabled the government to pay attention to the development of libraries in Namibia. The policy framework has also led to partnership with organisations such the MCA, Finnish library association and others to assist in developing Namibian libraries NLAS (2017). One of the major ICT project was the Libraries for Development project for the years 2012-2014, which was a collaboration between the Finnish Library Association (FLA), Tanzanian and Namibian libraries. According to NLAS (2017) one of the goals of this project was to promote ICT literacy, and by the end of the project in 2017, about 153 library staff and 3315 community members were provided with free basic ICT training.

1.7.4 IT Policy

The IT policy was developed by the Ministry of ICT to set out the IT Policy for the country. (Ministry of ICT, 2009). The policy recognised that the ICT sector provides undeniable benefits to the country's education and training sector. Several endorsements were made by this policy, which includes the following:

- Increased access to the Internet;
- Improved IT literacy and skills development;
- Competition and open markets;
- Transparency in decision making and development;
- The promotion of user's influence in the development of the IT sector;
- Protected rights of consumers;
- Fair and transparent industry practices with the aim to grow the ICT sector (Ministry of ICT, 2009).

1.7.5 Harambee Prosperity Plan (HPP)

The Harambee Prosperity Plan (HPP) is a focused and targeted action plan developed in the year 2015 to complement the NDPs and the Vision 2030 of the Republic of Namibia. The HPP is built on four pillars namely, effective governance, economic advancement, social progression and infrastructure development (Republic of Namibia, 2015). Chapter 6 of the HPP deliberated on improving the infrastructure development, which entails developing ICT infrastructure in the country. The HPP acknowledges the role of ICT as the driver of the country's economic development. Though Namibia ranks among the top countries with a well-developed ICT infrastructure in Africa, it was noted that the unavailability of electricity in remote areas as well limited Internet access points in rural areas are hindering both the provision and the implementation of ICT services. To address the challenges regarding ICT, the HPP formulated the following goals:

- 80 percent of the population of Namibia to be covered by broadband services by 2020;
 - 80 percent Broadband connections and usage to all primary and secondary schools in Namibia to allow e-learning by 2020;
 - Broadband connections and usage to 70 percent of the health facilities in Namibia to allow e-health by 2020;
 - 100 percent Broadband connections and usage to all public sector agencies in Namibia to allow for e-governance by 2020; and
 - 100 percent coverage by digital TV and radio broadcast to all households by 2020
- (Republic of Namibia, 2015)

The development of the HPP led to the drafting of a broadband policy which purpose was to provide a framework to provide a holistic development of broadband in the country.

1.7.6 Vision 2030

Vision 2030 is a national development strategy of the Republic of Namibia, published and circulated in 2004 by the GRN to provide long-term guidance in attaining the national development goals of the country. The dream of Namibia is to increase and enhance the use of ICTs to transform Namibia into a knowledge-based economy (Office of the President, 2004). Through Vision 2030, the GRN has recognised that ICT is the foundation for accelerating the pace at which Namibia is set to achieve its ambitious dream of becoming a knowledge-based economy (ETSIP, 2007). The GRN has also acknowledged the role of libraries in achieving its vision of transforming to a knowledge-based economy. It was, observed that libraries in Namibia were not well equipped to assist the country in reaching its national developmental goals because only a few of the Namibian libraries offered Internet access (Office of the President, 2004). On this note, the GRN has vowed to identify and set up Internet centres around the country and install wireless connection as well as free broadband Internet access for all the libraries around the country (Office of the President, 2004). With the assistance of the

MCA currently, most of the libraries in Namibia are equipped with computers and Internet connection and this is believed to have increased the number of users visiting the library (NLAS, 2017).

1.8 Challenges of implementing ICT in Namibia

Namibia ranks high amongst the countries with a well-developed ICT infrastructure in Africa (IST Africa, 2009). Even though the GRN has made commendable progress in the formulation of ICT policies and other initiatives in Namibia, numerous limitations have hindered the implementation process. The following challenges to do with the digital divide and low bandwidth are discussed below:

1.8.1 Digital divide

The development of ICT in Namibia, just like in other African countries is believed to be hindered by the digital divide. The digital divide is described by Hone (2016, p.3) as “a gap between those individuals and communities who own, access and effectively use ICT and those who do not”. Hone observes that the digital divide between rural and urban areas in Namibia is still visible and needs to be addressed promptly. In an attempt to bridge the digital gap, Mobile Telecommunication Corporation (MTC) and Telecom as the leading telecommunication companies have decentralised their services by building ICT infrastructure in remote areas (Hone, 2016). The Namibia Inter-censal Demographic Survey report of 2016 reports that, about 92 % of the Namibian people aged 15 years and above living in rural areas have not used the Internet at the time of the survey. The report further reveals that the majority 88 % of the population aged 15 years and above residing in rural areas have not used a computer. The HPP has admitted that the country is experiencing challenges of limited telecommunication infrastructure in remote areas and low ICT literacy that hinders the use of Internet for personal development. It was observed that most of the electrification infrastructure, which was a necessity for communications equipment, were based in the urban

areas (Ndiwakalunga, 2015). Additionally, most of the infrastructure for MTC and Telecom Namibia such as the main base stations were situated in urban areas. Following this observation, it is evident that the major problem with implementing ICT policies and initiatives in Namibia is the unequal dispersal of Internet access among all the regions in the country. Therefore, the GRN should strive to narrow down the digital gap if it is to achieve a knowledge-based economy.

1.8.2 Low Bandwidth

In the year 2017, about 53% of the population had access to the Internet broadband; however, the high cost of Internet bandwidth in Namibia seems to have negative effects on the quality of Internet services in the country (Kamutuezu, 2017). Though Namibia ranks high in countries with a well-developed ICT infrastructure, the low Internet speed has been a matter of concern. The demand for high-speed bandwidth services in Namibia has continued to increase every year (Hone, 2016). Recently, the GRN has invested a significant amount of money in upgrading the digital network that links to the West Africa Cable System (WACS), which will provide free Internet bandwidth for five years (Economist, 2013). The upgrade is believed to increase the Internet bandwidth to 600 Mbits/s, which will bring relief to the country (Economist, 2013). Henceforth, a knowledge-based society can be achieved by increasing the bandwidth of the Internet, and this will enable Namibian citizen to have access to information promptly.

1.9 Research methodology

The study was guided by the critical realism research paradigm, which is considered to be used extensively in social science research. The study, therefore, employed a mixed methods approach, which, according to Johnson and Onwuegbuzie (2004), is a systematic integration of quantitative and qualitative methods into a single study. A mixed methods research approach enables the researcher to obtain a fuller picture and more profound understanding of a phenomenon under investigation. The study population was UNAM and NUST students and

librarians. Stratified quota sampling was employed to select 184 NUST and 186 UNAM students while purposive sampling was used to select two librarians, one from each institution. The study employed a survey questionnaire to collect data from the students regarding the issue of using print resources in the digital era. On the other hand, face-to-face semi-structured interview guide was used to collect qualitative data from the acquisition librarians to gain a fuller picture of the subject under investigation. Quantitative data was analysed with the Statistical Package for Social Science (SPSS) to produce descriptive data. The findings are presented in tables. Qualitative data was analysed manually through content analysis and interpreted by applying narrative analysis, which entails coding and identifying common themes.

1.10 Definition of key terms

The purpose of this section is to provide clarification on the keywords used in this study.

Print resources: referred to all the materials that represent traditional information resources, such as print books and print journals (Zha et al., 2014, p. 2).

Digital resources: entail both electronic resources and materials that are available electronically or online (Liu, 2006). The Library of Congress (2008, p.2) defines digital materials as “any work encoded and made available for access through the use of a computer”.

Relative advantage: refers to “the degree to which an innovation is perceived as better than the idea it supersedes” (Rogers, 1983, p. 15).

Complexity: refers to “the degree to which an innovation is perceived as difficult to understand and use” (Rogers, 1983, p. 15).

Compatibility: “the degree to which an innovation is perceived as being consistent with the existing values, past experience and needs of potential adopters” (Rogers, 1983, p. 15).

1.11 Division of the thesis

This section highlights how this thesis is outlined.

Chapter 1: Introduction - provides the background, objectives, the problem under investigation, and the research methods used for this study.

Chapter 2: Literature Review - discusses the literature relevant to the study.

Chapter 3: Research Methods - discusses the research designs, paradigms, data collection methods, and research instruments as well as data analysis. It also looks at the population, the sampling technique, the procedure as well as the ethical issues.

Chapter 4: Data analysis and presentation - analyses and presents the data of the study.

Chapter 5: Discussion and interpretation of research findings - discusses the results as presented in chapter four and provides a description incorporating literature related to the study.

Chapter 6: Summary, Conclusion and Recommendations - provides the summary of findings, the conclusions as well as the recommendations emanating from the study.

References - This section provides an alphabetical list of the sources cited in the study. The American Psychology Association (APA) referencing style was used.

Appendices - This section provides all the research protocols, which entail permission letters, an informed consent letter, the interview guide and the questionnaire.

1.12 Summary

This chapter discussed the orientation of the study by acknowledging that the proliferation of ICT has enabled information to be available in both print and electronic formats. The problem

statement highlights that library users in the digital era, have a choice between print and electronic formats but it is not clear as to which format is preferred. The chapter also looked at the objectives, significance, limitations and delimitations of the study. The chapter further provided the context of the study by highlighting different policies and initiatives undertaken by the GRN to aid in the development of ICT in the country as well as the challenges in implementing the ICT infrastructures. The research methodology was discussed briefly and the key terms were defined. The next chapter is on literature review.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

A literature review allows a researcher to develop a clear understanding of the research topic. It also enables a researcher to establish what has already been researched on the issue as well as identifying the gaps and how the current research can fill those gaps (Castillo, 2009). According to Hart (2003, p. 13) in a literature review, a researcher selects "documents to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents concerning the proposed research."

The literature review aims to update the reader with recent studies on the issue of print resources in the digital era. A lot that has been written on this subject. However, most of the literature concentrates on students' preference of print and electronic resources. Not many scholars looked at electronic resources alone. Hence, there is scanty information on the use of print resources in the digital era. Most of the literature reviewed in this study is from India, Hong Kong, United Kingdom (UK), United States of America (USA), Nigeria, Namibia and Malawi. The literature reviewed entails journal articles, books, seminars reports and research reports. The purpose of this study was to establish the use of print library materials in the era of digital resources in institutions of higher learning in Namibia. Therefore, this literature review starts with a discussion of print and electronic library resources, followed by issues drawn from the research objectives of this study as follows:

1. The extent to which print format is preferred by students;
2. Reasons for possible preference of print resources in the digital era;
3. Challenges encountered by students when using print format in the digital era and
4. Collection development policies regarding print resources in these libraries.

2.2 Print library materials

Print resources are described by Zha et al. (2014, p. 2) as "all the materials that represent traditional information resources, such as print books and print journals". This means that print library materials entail all library materials, which enable library patrons to browse through a physical copy. These include those materials that are born digital but are printed or those that are born print. Print resources are believed to have many advantages. Egberongbe (2011) argues that print resources are used even when there is a lack of network access or electricity. Wu (2005) mentions the fact that not everything is online. Similarly, Bonnell (2008) asserts that even though students feel that any information can be found online, this is not the case. Following these assertions, Herring (2001) observes that of the 1.5 million scholarly printed materials as from 1970, only a few are available online. Therefore, the majority of the world published information sources are still only available in print. Wu (2005) argues that print resources are said to be thriving in the digital era because materials available online are not always accurate or authenticated, as anyone who has a computer and access to an information source can make amendments and disseminate false information. Bonnell (2008) who states that print resources are more reliable compared to Internet sources supports this view. In addition, the use of Internet sources requires specific research skills to determine which information sources contain accurate information.

Another advantage of print library materials is that information in digital format is not always free, implying that libraries usually have to ensure continuous authentication to fee-based materials such as e-books and electronic journals (Wu, 2005). As per Wu's observation, the participants in the study were prompted for a password when accessing the materials remotely. Only then did they realise that they are restricted to access specific resources. Wu also identified ownership as another distinctive advantage of using print resources, which implies that print library materials remain the property of the library for ages, unlike electronic

resources that require constant subscription renewals for the patrons to have access to online resources.

2.3 Digital resources

According to Liu (2006), digital materials entail both electronic resources and materials that are available electronically or online. Similarly, the Library of Congress (2008, p.2) defines digital materials as "any work encoded and made available for access through the use of a computer." According to Hamutumwa (2014), digital materials include electronic information by remote and direct access. The library grants permission to the library users to access the materials through official, contractual, licensed or other agreement as per the subscription terms and conditions (Hamutumwa, 2014). Moreover, Dhanavandan, Esmail and Nagarajan (2012, p 2) state that digital resources entail "e-books, e-journals, articles, newspapers, thesis, dissertation, databases and CD – ROMs, which are likely to be the alternative to the print media." Given the definition above, one can deduce that digital resources entail all materials that are born digital or materials converted from print to electronic format, which is accessed through ICT networks.

There are many benefits attached to digital resources. Wu (2005) states that one of the unique advantages of digital resources is that they can be replicated and accessed by users simultaneously. Hence, digital resources are not exhausted by use. Secondly, digital materials link users to other electronic resources available in other databases (Wu, 2005). Additionally, electronic resources are portable in such a way that users can save their documents in USB devices and other gadgets that they can carry in their pockets, unlike when a user has to carry loads of books (Wu, 2005). Lastly, consulting digital resources instead of print volumes saves the time for library patrons. However, with the proliferation of digital resources comes additional charges for information technologies (Mawindo & Hoskin, 2008). One of the drawbacks of digital resources is that there should be a functional workstation. This entails

software, such as Acrobat Reader, printers and an Internet point as well as a server (Pather, 2004). A functional workstation means extra space is needed to host it. Mawindo and Hoskin (2008) state that, despite speculation that electronic journals save space in the library, if students access digital resources through the library; there is a need for sufficient workstations, which require physical space. However, this may not be the case now due to the availability of Wi-Fi as well as hand held devices, which enable students to access information outside the library.

2.4 The extent to which print format is preferred

The preference of a particular format depends mostly on what is being offered by the library. Mawindo and Hoskin (2008) conducted a study on the use of print and electronic resources by students at the University of Malawi, College of Medicine, with the aim of establishing the extent to which medical students used printed and electronic resources at their university. The findings revealed that students used both print and electronic resources. They also established that print resources were used on a daily basis, with books being the most preferred source, followed by newspapers and short loan materials respectively. Furthermore, electronic resources were reportedly used mostly once a month. Mawindo and Hoskin (2008) assert that the use of a particular format is determined by what is accessible to the library patrons and what they prefer. This means that some library patrons may use a specific source just because it is the only one available at the library. Therefore, if the library provides information sources in both print and electronic format, it can be stated that the users prefer one format over the other. However, the same inferences cannot be made if the material is only offered in one format, which is either print or electronic.

Studies in Namibia seems to suggest that the majority of students still prefer print resources in this era. Hamutumwa's (2014) and Katjihingua's (2001) studies on distance students at UNAM discovered that distance students preferred to consult both physical and electronic materials.

Hamutumwa (2014) found that despite students using both electronic and print resources, the majority preferred to use print. Additionally, a few of the students who preferred digital resources indicated that they sometimes used print materials. Although these two Namibian studies only focused on distance students at UNAM, they provided insight on which format is mostly preferred. Hence, there was still a need for similar studies to look at full-time students at UNAM and NUST to get a complete outlook on this subject.

Users in the digital era face endless opportunities when accessing their preferred formats, which include reading entirely on the screen, printing, or scanning documents to have the format they prefer. A survey conducted by Nicholas, Rowland, Clark, Huntington and Jamali (2008) on scholarly e-book usage in the United Kingdom, reported that most students and academic staff read entirely on the screen when using electronic resources and only a few of them printed materials from the Internet so that they could read printed copies. Given that background, it is evident that users make sure that they have their preferred format. Therefore, a user who prefers print resources will print an information source that is only available in electronic format. Likewise, a user who prefers electronic resources would scan the pages that they need to read in electronic format if the information source is only offered in print format.

A study conducted in Hong Kong titled, "Some students still read books in the 21st century," discovered that students visited physical libraries frequently. Moreover, the study revealed that in the 21st century, a large number of students mostly still prefer to use print resources (Bodomo, Lam & Lee, 2003). More than half of the respondents indicated that they visited the library at least once a month to access physical material, while few indicated that they used the digital library once a month and some reported that they had never used the digital library in the past three months. The study further found that, although the students appreciated digital libraries, they did not think that they could completely replace conventional libraries. Similarly, studies done in India at Krishnasamy College of Engineering and Technology Library

discovered that the majority of users, both students and academic staff, preferred physical library materials for their convenience (Dhanavandan et al., 2012). Additionally, users indicated that they visited the library at least once a week to borrow and read print resources at the college library. Similarly, a study on the usage, statistics of print and electronic resources at Guru Gobind Singh Indraprastha University Library by Kapoor (2010) found that although many library patrons were accessing electronic resources, this did not affect the use of print resources as the number of print transactions were on the increase. Studies done in India by Sharma and Sharma (2013) on the postgraduate information seeking behaviour at three Universities found that a vast majority of postgraduate students reported using physical library to for books, textbooks, reference materials, journals as well as newspapers. Another study conducted in India on ICT and its impact on library and information services in Kendriya Vidyalaya Libraries confirm that “print culture is still dominating in university libraries in India” (Singh, 2003, p. 756). Following these observations, it is evident that most of the library patrons are still accustomed to using print despite the presence of digital resources.

A Nigerian study investigated the preference between print and electronic resources in two private universities (Odiegbeyan-Ose, Ilo, Michael-Onuoha & Idahosa, 2015). The investigation revealed that students visited libraries more frequently to access both print and electronic resources. Another Nigerian study at Nnamdi Azikiwe Library discovered that, in the Internet era, approximately 12,140 books were checked out as compared to 7,989 in the pre – Internet era at (Asogwa et al., 2016). This study yielded beneficial results as it looked at the statistics of the transaction of print resources from the year 2005 – 2014 to compare the usage of print library materials before and after the introduction of Internet services at the library. The study also discovered that when the Library started offering Internet services, more readers started visiting the Nnamdi Azikiwe Library more frequently. Asogwa et al. (2016) argue that with the advent of the Internet in the past two decades, there were speculations that print

resources would die but they did not, and in fact, paper-based resources continue to co-exist with electronic resources.

Studies in the USA seem to suggest that with the availability of electronic resources the use of print resources is decreasing. Applegate (2008) discovered that academic libraries in the USA had seen a reduction of print resources transactions by 2.2 %. The study further revealed that most of the Americans used the Internet for their information needs and not physical libraries. Sathe, Grady and Guise (2002) studied the effect of journal format on research in the USA and found that most students preferred electronic resources and lecturers preferred print journals. Bradford (2005) and Colson (2007) on the study with reference resources in the USA reached the same conclusion when they discovered that few print reference materials were used in academic libraries. Similarly, Bonnell (2008) assessed the use of print collection in three high schools in the USA by conducting focus group discussions with the teachers and students as well as analysing the resources cited by students in their school work to examine how much students consulted print and electronic resources at the media centre. The study found that most of the students at all the three schools preferred online resources. The investigation further revealed that students in the USA are accustomed to electronic resources because they only want to look online. However, it is necessary for students to use other resources apart from electronic resources and this is only possible if the students visit the library frequently. On the other hand, it appears that in developing countries print resources are still used more extensively compared to developed countries. This could be attributed to issues surrounding Internet access, speed and availability of computers in developing countries.

Bodomo et al. (2003) state that electronic resources might replace print materials, especially journals and most library users have a positive attitude towards digital resources. This study therefore also investigated the attitude of library users towards e-resources. Mawindo and Hoskin (2008) argue that in the developing world print resources would co-exist with electronic

resources. Other researchers, such as Egberongbe (2011) who state that traditional resources are here to stay and they will complement electronic resources in the digital age, support this view. This study also investigated if these sentiments were true of NUST and UNAM.

2.5 Possible reasons for preference of print resources

There are different reasons why library patrons prefer one format to the other. Mawindo and Hoskin (2008) are of the opinion that the majority of students prefer print library materials as they are more convenient to read from and easy to locate information at no additional expenses, which means there are no printing costs. Bodomo et al. (2003) found that respondents who preferred to use print resources stated that, they had developed a habit of reading from print materials; some considered print materials to be more convenient. There have been concerns that reading on the screen for a prolonged time may have a negative impact on the eyes hence, some respondents indicated that reading in print format was better for their eyes. Sharma and Sharma (2013) found that postgraduate students in their study preferred print book because reading books online was difficult supported this view. It was noted that students preferred print resources because they believed that "unless if the book is lost or checked out, the book will always exist without any technical concern" (Bodomo et al., 2003, p. 43). It is evident that the preference of a certain format is determined by the experience with that particular format. This means that, if users have a positive encounter with print resources, they will use it more frequently. However, if they have a negative encounter, they may use it less or not at all. Valentine (as cited in Lombardo & Miree, 2003, p.6) supports these views that "students tend to avoid resources they are unfamiliar with or believe are difficult to use, returning to tools they have successfully used in the past."

Hamutumwa (2014) discovered that most of the distance students at UNAM did not prefer electronic resources because they involve the use of electricity for retrieval, which may be a hindrance factor as some of the students, reside in remote areas. Hence, they opted to use print

resources instead. Another reason cited by distance students at UNAM for the use of print resources was that accessing e-resources was costly especially if students did not have access to the Internet. Similarly, Asogwa et al. (2016), Dhanavandan et al. (2012) and Bodomo et al. (2003) found that lack of sufficient computers, difficulty reading from the computer screen, electricity access and cost were some of the reasons why users preferred to use print library materials. The findings stated above, also appear to suggest that users tend to consult resources that are readily available when needed. The University of Central England (2004) conducted a study to assess the opinions of students on e-resources. The study discovered that students who preferred print resources highlighted a lack of computers, password issues, as well as a lack of the necessary skills to access digital information format as some of the reasons why they opted for print resources. Mawindo and Hoskin (2008) opine that if students are facing predicaments when using computers, they will choose print library materials. Moreover, Lombardo and Miree (2003) argue that, if a specific source is not familiar to the student or difficult to use, the probability of them avoiding that source is very high. Hence, in such scenarios students might return to the information formats that are familiar to them.

Asogwa et al. (2016, p. 759) state that, in the digital era "users are migrating in great numbers to the new environment in search of their needed information; hence, virtual visits are outnumbering physical visits." Hamutumwa (2014) asserts that given the opportunity, most distance students at UNAM may have opted to use electronic resources, but it seems they are not aware of these resources. Hamutumwa (2014) further echoes that, promotion of electronic resources might help the students when accessing these resources. According to Buck-Kachaluba, Brady and Critten (2013) users usually prefer to read from print materials, especially when they are dealing with scholarly work as compared to reading for leisure. Reading in print format enables the users to have an opportunity to interact with the physical text. A web-based survey conducted by Dilevko and Gottlieb (2002) with the undergraduate

students at the University of Toronto discovered that undergraduate students typically begin their school assignments with the use of electronic resources. However, they often end up reverting to print resources. Students in Toronto stressed that print resources remained an essential source of information because of their reliability and permanent access. The same was echoed by Bonnell (2008) who found that students indicated that the Internet was used to start a research paper but would go back to print books and find the correct information. It is, therefore, evident that the use of a specific format depends on what is available at the library and what the users are familiar with as well as the perceived usefulness of the information sought.

2.6 Challenges encountered by students when using print format in the digital era

The proliferation of digital resources has presented users with a choice of which format to use, and this presents challenges to users. Mawindo and Hoskin (2008) discovered that when using print resources, students encountered certain difficulties. Firstly, most of the students felt that some of the materials were outdated and did not meet their information needs. Secondly, some students felt that print materials were few in the library. Hence, when they were checked out, there was no extra copy left at the library. The study further discovered that some of the materials were missing from the library and sometimes it was difficult to locate the materials. Students also indicated that the library staff were not always available to assist with the retrieval of library resources. Bodomo et al. (2003), Mawindo and Hoskin (2008), and Pather (2004) found that research participants encountered challenges of limited access to computers, very slow Internet, which hindered the retrieval of online resources. Following findings of these studies, this study investigated if these issues were also applicable NUST and UNAM. Mishra (2009) asserts that slow Internet connectivity is a major obstacle to Internet access in Africa. The slow Internet connectivity is a matter of concern in Namibia. The GRN is investing in

improving the digital networks, which is believed to bring relief to the country (Economist, 2013).

Choukhande and Kumar's (2004) study shows that most users visited the library to use physical materials, such as borrowing and using books and journals in the library. The study further noted that faculty members and scholars faced predicaments of lack of knowledge in the use of library services as well as limited understanding of the information sources available at the library. A study titled "information seeking behaviour of the research scholars of Science and Technology Faculty of Karnataka University" by Vajjaramatti, Keshava and Ramesha (2004) discovered that, even though most of the researchers used the Online Public Access Catalogue (OPAC) in the library, they still could not locate the materials in the library. Another complaint was that researchers felt that there were no current journals, therefore, the resources at the library were not adequate in meeting their needs.

A study carried out by Folb, Wessel and Czechowski (2011) discovered that even though the teaching staffs underutilised electronic books for assigning class-reading material, students were using them frequently to complete their assignments. Students encountered challenges such as licensing, as some of the materials were incomplete due to licensing issues. Additionally, chapters from electronic books could be posted on course management software to be accessed by the users. Shelburne (2009) and Nicholas et al. (2008) found that users experienced discomfort when reading digital content. Therefore, most of the users preferred to read short sections of electronic materials but preferred print when reading the whole chapter. Folb et al. (2011) discovered that some students encountered challenges with electronic books because they lacked the necessary research skills to retrieve them. Other difficulties, which they faced, were a lack of computer literacy skills to extract digital resources as well as information overload. This led to users not knowing what was relevant to them (Mawindo &

Hoskin, 2008). These views are also supported by Odiegbeyan-Ose et al. (2015), who states that challenges facing users in the virtual environment is that, it provides the users with a lot of information; hence, in most instance, users will have to rely on their judgement to sort out which information is useful.

2.7 Collection development policies regarding print resources in libraries

With the availability of digital materials in the 21st century, libraries face a daunting decision whether to acquire print or electronic resources for their collections. However, libraries can only successfully develop a balanced collection if they understand the need of the users (Palmquist & Kim 1998). A study at the Faculty of Humanities at Florida State University by Buck-Kachaluba et al. (2013) aimed to collect data, to aid in decision-making on whether to acquire print or electronic resources discovered that in the digital age, the Faculty of Humanities was still investing heavily in print resources. The study also found that the collection development policy prohibited duplication of both print and electronic resources. Thus, when the material was available in both formats the Acquisition Department was faced with a difficult decision whether to acquire print or electronic resources. Buck-Kachaluba et al. (2013) assert that the collection development policy can be amended to include “selective duplication” of both print and electronic formats.

It is advisable that the decision on which format to acquire should be aligned with the user's information needs. A study by Pather (2004) of science print journals at the University of Durban Library revealed that most of the print subscription was reduced to acquire electronic journals. This was because the publishers offered a discount on electronic journals. It shows that proper consultations were not done to look at what the users preferred. However, decisions were made solely on the lowest price offered. Littman and Connaway (2004) emphasise that, for collection development librarians to decide on which format to acquire, there should be an understanding of the usage of a particular source. Robinson (2010) states that libraries are

transitioning from print to electronic resources. Therefore, libraries face pressure to build a sustainable collection despite the licencing and subscription inflation. Heintzelman, Moore and Ward (2008) posit that there is a decline in the use of print materials. It may mean that the libraries are acquiring wrong books. Hence, a continuing user study is necessary when deciding which format to purchase because there is a need for academic libraries to understand the preferred format of students. The libraries must also note that the need of the library users keeps on changing overtime, thus, a flexible collection development policy is mandatory.

According to Terrell (2015, p.60), "a collection development policy must be based on what is often used, and not on what has the potential to maybe used sometimes in the future." Therefore, the acquisition librarians are advised to understand the resources that the library users prefer. Marcum (2003) state that during the transition period, libraries should strive to respond to the user's needs by making available materials in both print and electronic resources. Hence, it is essential to have a clear understanding of the changes in the patron's information seeking behaviour, as this will enable the collection developers to make informed decisions when selecting materials for their collection (Marcum, 2003). Similarly, Buck-Kachaluba et al. (2013) support the idea of librarians understanding the changes in the information seeking behaviour of library users, as they state that librarians need to understand the advantages and disadvantages of print and electronic format. It is also imperative for librarians to ensure that the library patrons have access to information in their preferred format.

2.8 Theoretical Framework

Neuman (2011, p. 8) defines a theoretical framework as a "general theoretical system with assumptions, concepts and specific social theories". Babbie (2007, p. 43) state that theories are "systematic sets of interrelated statements intended to explain some aspects of social life". In other words, a theoretical framework is as a collection of different interrelated theories and models emanating from the literature, which is used in grounding a research study. Kripanont

(2007) assert that a theoretical framework discusses the relationship between issues that are considered crucial for the study. For this study, Technology Adoption and Acceptance Theories were discussed to understand the behaviour and attitudes of library users in the digital age. According to Hu, Chau, Sheng and Yan (1999, p. 96) technology acceptance is "an individual's psychological state with regard to his or her voluntary or intended use of a particular technology." It is critical to understand why students use print resources in the era where most of the information is available online. Therefore, the Technology Adoption and Acceptance Theories, namely the Theory of Reasoned Action (TRA), the Theory of Planned Behaviour (TPB), the Technology Acceptance Model (TAM) as well as the Decomposed Theory of Planned Behaviour (DTPB) provided a basis of understanding the behaviour and attitudes of library users in this era. Even though all the models were discussed in this section, the DTPB was used as it provided an extensive explanation and predict library users to use a particular information format since it incorporates additional factors such as subjective norm and perceived behaviour control, which are lacking in other technology adoption and acceptance theories.

2.8.1 Theory of Reasoned Action (TRA)

Ajzen and Fischbein developed this behavioural theory in 1980. It is considered the backbone of studies associated with attitude-behaviour relationships. This theory is widely used in explaining and predicting behaviour in many fields of study. The TRA states that the attitudes of people and social norms are influenced by their beliefs (Kripanont, 2007). This theory "views the intention of an individual whether to perform a given behaviour or not as the immediate determinant action" Kripanont, 2007, p. 49). Similarly, people who firmly believe that a particular behaviour leads to a positive outcome will perform that specific behaviour. Moreover, if an individual has a firm belief that adverse consequences are because of a specific act, they will have negative attitudes toward that particular behaviour (Kripanont, 2007).

Furthermore, Leach, Hennessy and Fischbein (1994) pointed out that TRA comprises of two primary determinants of intention namely attitude towards behaviour (ATB) as well as the subjective norm (SN) which are linked to behaviour. The TRA theory illustrate that individuals are aware of their decisions as well as the possible outcomes of their action before they are involved in any decision making on whether to be involved in that specific behaviour or not (Kripanont, 2007).

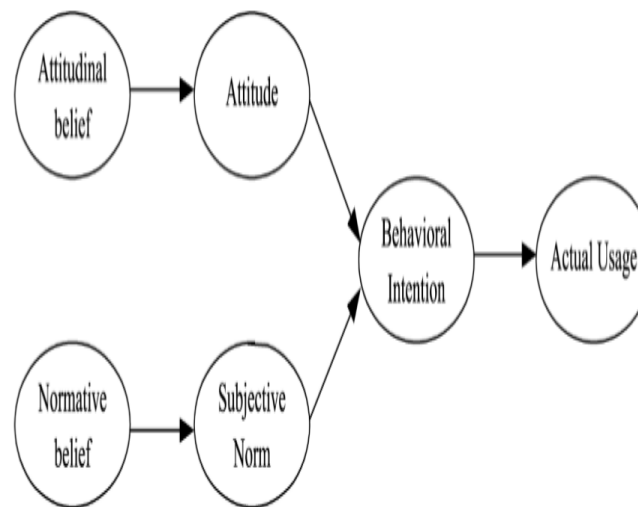


Figure 1: Theory of Reasoned Action (Source: Shih and Fang., 2004, p. 215)

Hamutumwa (2014) used the TRA to study the attitudes of distance students towards electronic resources at UNAM and found out that, the variables explained in this theory were the same as other studies that used this theory in predicting behaviour. This theory applied to the current research because it provided a basis for explaining and predicting the response of students towards the use of a specific format. If students have a positive attitude towards a particular information format, and are convinced that that particular format will have a positive impact on their study, the possibility of them using that format will be very high. On the contrary, if students have a negative attitude towards a specific format, the possibility of adopting and

using such format would be narrow. The next section discusses the Theory of Planned Behaviour (TPB), which is an extension to TRA.

2.8.2 Theory of Planned Behaviour (TPB)

Due to certain limitations of TRA, Ajzen extended the TRA to develop a Theory of Planned Behaviour in 1985. It was discovered that the TRA did not capture the whole behavioural component. Hence, a third independent determinant of intent known as "perceived behaviour control" (PBC) (Kripanont, 2007) was introduced. It is worth noting that the theory of planned behaviour evolved from the Theory of Reasoned Action. According to Ajzen (1991) TPB integrates an additional variable which predicts deliberate behaviour. Shih et al. (2011) note that this theory provides a better understanding of behaviour because it entails variables such as behavioural beliefs, normative beliefs and control beliefs. Behavioural beliefs imply the notion of an outcome as a result of a particular behaviour of an individual. Normative theories are the perceived behaviour expectation as a result of pressure from a social group or subjective norms. Control beliefs entail the presence of factors that may facilitate the performance of the behaviour and how influential these factors are (Ajzen, 2002).

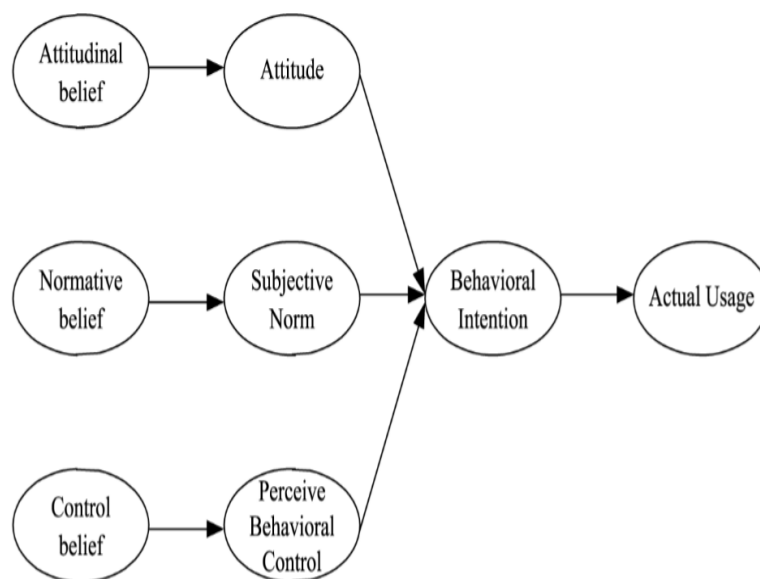


Figure 2: Theory of Planned Behaviour (Source: Shih & Fang, 2004, p. 216)

For this study, this theory was used to provide a basis of understanding how human behaviour influences intention to consult either print or electronic resources in the 21st century. It aided in understanding how perceived behaviour control as an additional construct influences behaviour intention to use a certain format. Perceived behaviour control in this study refers to students knowing how to retrieve information from various databases, searching the catalogues and locating materials on the shelves. Students who feel they have the necessary skills and resources required to retrieve a particular format may opt to adopt and use that specific format as opposed to students who did not feel confident in their information retrieval skill. The next section discusses the Technology Acceptance Model (TAM).

2.8.3 Technology Acceptance Model (TAM)

TAM is one of the most widely known models related to technology acceptance and use. It was developed initially by Davis in 1986 as an extension of TRA. It is best for explaining and predicting users' acceptance and use of information technology (Legris, Ingham & Collierate, 2003). According to Park (2009, p. 151) "TAM provides a basis which one traces how external variables influence belief, attitude, and intention to use." TAM has advanced over time, and it seems to be able to account for up to 50 % of users acceptance of the technology. Ghazizadeh, Lee and Boyle (2012) state that TAM suggests that perceived usefulness and perceived ease of use are the main elements that determine whether to accept or reject a certain technology. According to Davis (1989, p. 985), usefulness is "the degree to which a person believes that using a particular system would be free of effort" and perceived ease of use is "the degree to which a person believes that using a particular system would be free of effort". Hence, perceived usefulness is believed to be influenced by perceived ease of use (Hamutumwa, 2014). Figure 3 below illustrates the components of TAM.

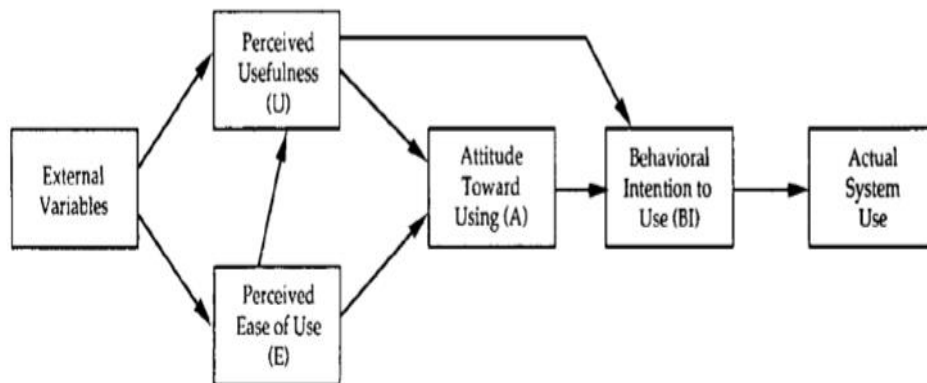


Figure 3: Technology Acceptance Model (Source: Davis, Bagozzi & Warshaw, 1989 p. 985)

This theory was applied to different sectors. In the library sector, Hamutumwa (2014) used TAM to study the use of electronic resources among UNAM distance students and found that ease of use determines behavioural intentions to use e-resources. Park (2009) used TAM to understand university students' intentions to use e-learning and found that although perceived usefulness and ease of use did not directly affect the university students' use of e-learning, the constructs were related to attitude towards e-learning. For this study, ease of use implies the stage at which the students feel that retrieving different information formats in the library is easy. Ease of use also entails using the online public catalogue and the process of extracting the materials from the shelves. Additionally, perceived usefulness, in this case, means students appreciation and use of a specific format to fulfil their information need. Therefore, if, for example, students feel that retrieving print resources is easy they will find them useful. The following section looks at the DTPB which was the most suitable theory used in grounding this study.

2.8.4 Decomposed Theory of Planned Behaviour (DTPB)

The DTPB is "a kind of improved behaviour model which is based on the Innovation Diffusion Theory (IDT), TPB, TAM, and it adopts the multidimensional belief structure to study

individual antecedents of constructs" (Tao & Fan, 2017, p. 86). Taylor and Todd introduced it in 1995 and it is believed to be similar to TPB and TAM. However, it incorporates additional constructs such as the subjective norm and the perceived behaviour control that is not presented in other Technology Adoption and Acceptance Theories. The added constructs are believed to be crucial determinants of behaviour. According to Kripanont (2007) the model aimed to decompose the attitude belief, subjective norm and perceived behaviour control into a particular belief dimension. Taylor and Todd (1995) recommended decomposing attitudinal belief into three categories namely, relative advantage, complexity and compatibility. Furthermore, the normative belief was decomposed into peer influence. Taylor and Todd also decomposed perceived behaviour into three concepts namely, self-efficacy, resource facilitating condition, and technology facilitating conditions (Taylor & Todd, 1995).

Taylor and Todd (1995) compared three models TAM, TPB and DTPB to establish which one provided a better understanding of information technology usage. The result indicated that DTPB offers a "fuller understanding of behaviour intention by focusing on factors that are likely to influence systems use through the application of both design and implementation strategies" (Taylor & Todd, 1995, p 1). Similarly, Shih and Fang (2004) used the DTPB in their study of Internet banking in Taiwan. With other theories, such as the TRA and TPB the study discovered that although there is no improvement in fit, the DTPB better explains attitudes, subjective norms and behavioural intentions. Tao and Fan (2017) used a modified DTPB that integrates satisfaction and trust into the original DTPB in the transportation sector to explore the factors that affect the user intention towards the use of distance-based electronic toll collection services. The study found that compatibility was the most powerful influence factor, followed by perceived usefulness, facilitating conditions, self-efficacy and perceived ease of use.

Following is Figure 4, which illustrates DTPB.

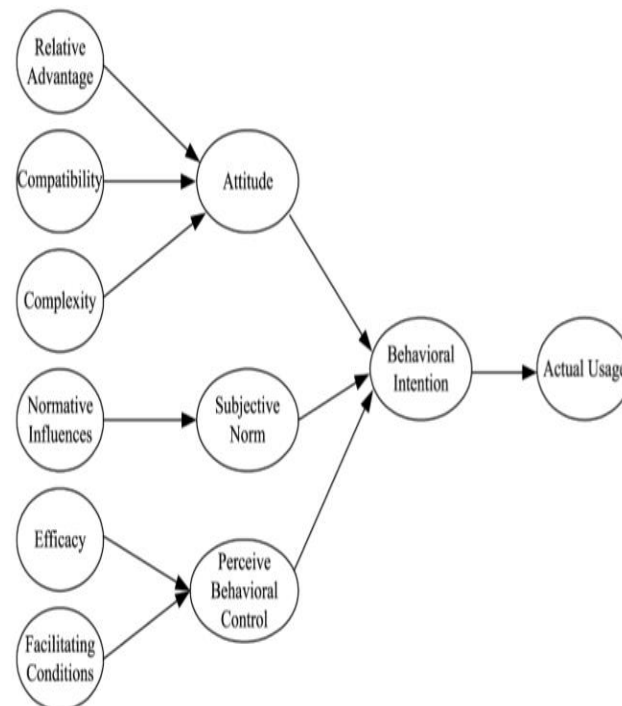


Figure 4: The Decomposed Theory of Planned Behaviour (Source: Shih & Fang, 2004, p. 217)

Taylor and Todd (1995) separated attitudinal belief into three essential attributes, namely, relative advantage, complexity and compatibility. Relative advantage is the same as perceived usefulness in TAM which is described by Rogers (1983, p. 15) as "the degree to which an innovation is perceived as better than the idea it supersedes". If an individual perceives the innovation to be of advantage to their lifestyle, the more the innovation will be adopted and used by such an individual (Rogers, 1983). On the other hand, compatibility as the second attribute of attitudinal belief is defined by Rogers as "the degree to which an innovation is perceived as being consistent with the existing values, past experience and needs of potential adopters" (p. 15). Rogers observed that an innovation that is not compatible with the existing values and norms of a certain social system is unlikely to be adopted in comparison to an innovation that is compatible. Complexity as the third construct of attitudinal belief is defined

as "the degree to which an innovation is perceived as difficult to understand and use" (Rogers, 1983, p.15). Complexity is known as ease of use in TAM, which implies that some innovations are difficult to use. Therefore, Taylor observed that innovations that are simpler to understand would be adopted more rapidly than complicated and innovation that requires an individual to develop new skills. Hence, it can be deduced that innovations that are perceived by individuals as having a higher relative advantage, compatibility and less complexity are believed to be adopted and used promptly (Rogers, 1983).

The subjective norm of the DTPB is further divided into normative influences, which entails peer influence and superior influence. Tao and Fan (2017, p. 87) observed that peer influence "indicates the perspectives of friends and colleagues" while superior influence represents the perspectives and perceptions of predecessors and superiors". Rogers (1983) posits that individuals depend strongly on a subjective evaluation of innovation by their peers or superiors who have previously used and adopted the innovation. Rogers (1983) further indicates that most individuals do not evaluate an innovation objectively through scientific processes, but through subjective evaluation of their peers who have used and adopted an innovation. Therefore, serves as the social models and whose behaviour trends others usually copy in the social setting. Consequently, it seems that the subjective norms of a specific innovation are interchanged among individuals in a social setting, and this has an impact on the acceptance and use of that particular innovation.

The perceived behaviour control is decomposed into two concepts, which entail self-efficacy and facilitating conditions. Self-efficacy "represent an ability to perform the specific behaviour by selves (Tao & Fan, 2017, p 87)". According to Ajzen (1991), an individual who is confident about a certain innovation tend to use and adopt that innovation. Shih and Fang (2004) refer to self-efficacy as comfort with using the innovation. Facilitating conditions "reflect the availability of resources needed to perform a particular behaviour" (Ajzen, 1991, p, 217).

Facilitating conditions is further divided into resource facilitation conditions and technology facilitating condition (Tao & Fan, 2017).

For this study, this theory was used to understand how attitude plays a role in the preference of print or electronic format in the digital era. Specifically, the three constructs of attitude, namely, relative advantage, compatibility and complexity were used in understanding how attitude influences behaviour intention to use a specific information format. In this study, relative advantage refers to how the students perceive a specific information format to be useful. If students perceive print resources to be, more valuable than electronic resources they tend to develop a positive attitude, which leads to the students using print resources. Compatibility in this study refers to how compatible print and electronic format are with students' lifestyles. Students who find a specific format to be well matched with their lifestyles, values and experiences may develop a positive attitude to adopt and use that particular format. Regarding this view, Bodomo et al. (2003) state that the preference of a particular format is determined by the user's experience with that specific format. Therefore, if users have a positive encounter they will also develop a positive attitude towards it. Moreover, complexity in this study entails how easy it is to retrieve and use a specific format. If students consult a certain format and find it to be, relatively easy to use they may develop a positive attitude towards that particular format and the chances of adopting and using it are more likely to be high. On this, note Lombardo and Miree (2003) argue that, if library users perceive a certain format to be difficult to use they will avoid using it and revert to the formats they have successfully used in the past. The lack of skills to retrieve information also plays a role in the choice of a specific format.

2.9 Summary

This chapter reviewed literature on the issue of print resources in the digital era, both in developing and developed countries. The issues presented in this chapter are derived from the

objectives of this study. The main conclusion drawn from the literature was that even with the availability of digital content in this era, most students still prefer print resources. The literature review revealed that users believe that electronic resources will not outshine print resources, however, the two will continue to co-exist. The literature recommends that when acquiring library materials, the acquisition librarians should take into consideration the format that is preferred; hence, there is a need for a flexible collection development policy. The chapter also looked at the technology acceptance theories, namely, TRA, TPB, TAM and DTPB which provide a basis for understanding why users accept or reject the use of a particular source of information. Following the review of these theories, it was established that the DTPB provided a fuller explanation of students' intention to use different information formats since it incorporated decomposed constructs of attitude, subjective norm and perceived behaviour which are not included in the TRA, TPB and TAM. The next chapter looks at the research methodology.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter provides an overview of the research methodology used in this study, whose purpose was to investigate the use of print library materials in the era of digital resources in institutions of higher learning in Namibia by means of a multi case study of NUST and UNAM. This was achieved by pursuing the following sub-objectives: to determine the extent to which print format is preferred by students, to establish the reasons for possible preference of print resources in the digital era by students to establish challenges encountered by students when using print format in the digital era, to find out collection development policies regarding print resources in these libraries, and to formulate recommendations on how institutions can improve their service and provision concerning print resources in the digital era. The chapter discusses the research traditions or paradigms, which informed this study. It also looks at research design, the population, the sampling methods used, as well as the sample size and the data collection instruments. The procedure of data collection is also explained as well as how the data was analysed. Finally, the chapter discusses the research ethics and provides an evaluation of the research methodology.

3.2 Research paradigm

The term paradigm according to Baily (as cited in Plooy- Cilliers, 2014, p. 19) is "a cluster of beliefs and dictates which for scientists in a particular discipline influence what should be studied, how research should be done, and how results should be interpreted". The notion of these research paradigms enables researchers to adopt a particular way of approaching and studying a phenomenon in a specific field of study (Plooy- Cilliers, 2014). Different research paradigms are used to approach different phenomena in various disciplines. However, there are three main paradigms, which are widely used to study the world, and these are positivism, interpretivism and critical realism, which are explained in the next section.

3.2.1 Positivism paradigm

Positivism is a paradigm, which advocates for the application of natural sciences methods to study social and any other phenomenon (Plooy- Cilliers, 2014). The root of positivism can be traced back to August Comte who posit that the knowledge about the social world can be objectively obtained and things of the social and psychological world can be observed and measured scientifically (Thomas, 2013). Moreover, the primary aim of a positivist researcher is to obtain a causal relationship between variables to control and predict the social and natural world. According to Plooy-Cilliers (2014) the epistemological perspective of the positivism, which entails “what is regarded as valid knowledge” (p. 25) postulates that knowledge, is derived from empirical observation only, which includes hypothesis testing. The ontological perspective of a positivist researcher posits that order and regularities govern external reality. Therefore, the researchers should determine the law that regulates the truth (Plooy-Cilliers, 2014). As the positivist researcher aims to find a causal relationship between variables, he/she ought to use quantitative research methods, which enables him/her to use statistical techniques to analyse the collected data. Plooy-Cilliers (2014) indicate that researchers from the positivism paradigm favour direct observation, measurements and experiments under controlled conditions as methods of data collection. The positivism paradigm has been criticised for ignoring the issue of subjectivity, which is believed to be unique to every individual (Plooy-Cilliers, 2014). On this note, Babbie (2007) asserts that each individual thinks and acts subjectively to a certain level. Although this study did not focus on the natural sciences, it was aligned to this paradigm to a certain extent.

3.2.2 Interpretivism Paradigm

The limitations and shortcoming of the positivism paradigm has led to the establishment of the interpretivism paradigm. The notion of the interpretivism paradigm rests on the assumption that people are different from objects. Therefore, unlike objects human beings change all the

time depending on the influence from their environment (Plooy-Cilliers, 2014). The researchers who subscribe to this paradigm believe that researchers "are interested in people and the way that they interrelate-what they think and how they form ideas about the world; how their worlds are constructed" (Thomas, 2013, p. 108). The epistemological reasoning of interpretivism is that "if you want to understand human behaviour, you need to grasp what people view as common sense" (Plooy-Cilliers, 2014, p. 29).

The ontological reasoning of an interpretivist is that social construction and the meaning that people attach to their own experiences because of a change in the social setting is what constitutes reality (Plooy-Cilliers, 2014). This implies that, depending on the personal experience due to certain circumstances, people may view reality differently. Plooy-Cilliers argues that given the fact that interpretivist researchers study reality subjectively they use qualitative research methods to gain in-depth understanding. This entails focus group discussions, in-depth interview, and narrative enquiry. This study applied interpretivism to some extent, mainly to gain a deeper understanding of the use of print library materials in the digital era from the librarians.

3.2.3 Critical Realism paradigm

Critical realism was developed out of frustration from positivism and interpretivism. Critical realism took principles from both the positivism and interpretivism paradigm. Plooy-Cilliers (2014) argue that critical realism acknowledges that real structure exists independent of human consciousness, which is similar to the positivism paradigm. On the other hand, critical realism also believes that knowledge is a social construct, which is identical to interpretivism belief. The epistemological perspective of critical realism is that knowledge is not permanent but is something that should be considered within its historical and social context (Plooy- Cilliers, 2014). The ontological perspective of the critical realism points out that "social reality has

multiple layers and what we observe and experience is often merely a surface reality, which is only partial and sometimes even false" (p. 32). Critical realists believe that reality can be investigated from different angles. Hence, no single method can provide definite results about any given object of research (Plooy-Cilliers, 2014). "The reason why critical realists use multiple sources of data collection is that it increases the validity and reliability of a study" (p. 33). Critical realism "combines the strengths of both paradigms to best achieve the objective of your research" (Kumar, 2014, p.17). This study adopted a critical realism paradigm to provide a comprehensive understanding of the use of print library materials in the digital era.

3.3 Research Design

There are many definitions of research design. Durrheim (2006, p. 34) defines research design as a "strategic framework for action that serves as a bridge between research questions and the execution or implementation of the research". Punch (2005", p. 62) defines research design as "all the issues involved in planning and executing a research project - from identifying the problem through to reporting and publishing the results". In simple terms, research design is a guideline of how the researcher intends to carry out a study, and this involves how the researcher plans to gather and analyse the data. A research design allows the researcher to have an understanding of the empirical world and provide a connection between the research question and the data from the study (Punch, 2005).

This study was a multiple case study, which employed both qualitative and quantitative research approaches. Gustafsson (2017) argues that, when an investigation is looking at more than one case a multiple case study should be considered. Similarly, Zainal (2007, p1) is of the opinion that a multiple case study "enables a researcher to examine the data within a specific context closely". A multiple case study is believed to be the same as the imitation of an experiment in a sense that the conclusion emanating from one case should be able to be linked to the findings of the other case (Bengtsson, 1999). On the other hand, Gustafsson (2017)

opines that in a multiple case study, a researcher is trying to establish the similarities and differences between the cases. Furthermore, Yin (2014) argues that the results generated from multiple cases are considered more convincing and robust in comparison to results from a single case study, which makes it more reasonable to generalise the findings. This study was carried out at two institutions of higher learning in Namibia, namely, UNAM and NUST, and the researcher was able to infer the conclusions of this study to UNAM and NUST main campuses.

3.4 Data collection methods

This study employed both quantitative and qualitative to gather data on the use of print library materials in the era of digital resources in institutions of higher learning in Namibia. According to Johnson and Onwuegbuzie (2004, p. 17) mixed methods research is defined "as the class of research where the researcher mixes or combines quantitative and qualitative research techniques, methods, approaches, concept or language into a single study". The goal of mixed methods research is not to substitute qualitative or quantitative methods, but to minimise the faults and maintain the strength of both methods Johnson and Onwuegbuzie (2004). Welman, Kruger and Mitchell (2005) stress that the decision about which research method to use "depends to a large extent on the type of research questions the researcher is addressing" (p.78). The reason for combining and integrating both qualitative and quantitative methods into this single study was to enable the researcher to obtain a fuller and greater understanding on why users still use print library material in the digital era in institutions of higher learning in Namibia.

The quantitative research method, specifically survey was used to gather data from students at UNAM and NUST to address the following objectives: to determine the extent to which print format is preferred and to establish the reasons for possible preference of print resources in the digital era. It was also used to gather information to establish challenges encountered by

students when using print format in the digital age. Qualitative research approach using interviews was directed to the librarians to fulfil the objective of determining the extent to which print format is preferred as well as finding out collection development policies regarding print resources in these libraries. Concerning the mixed methods research, strengths emanating from both approaches are combined to gather rich data, and to get a comprehensive view of the phenomena being investigated (Kumar, 2014). Survey and interview are discussed in detail.

3.4.1 Survey

A survey is the best method for measuring attitudes from a large population (Babbie, 2008). According to Fink (2013) surveys are "information collection methods used to describe, compare, or explain individual and societal knowledge, feelings, values, preference, and behaviour" (p. 2). Similarly, Plooy-Cilliers and Cronje (2014, p. 150) observe that a survey is a "very popular research tool and is often used to gather demographic information, such as age, gender, race, income, etc. as well as data about people's attitudes, opinions, impressions, levels of satisfaction, and so on." Babbie (2008) states that surveys are the oldest and best research methods that have been used by social researchers who are interested in gathering original data for describing a population that is too large to study directly. Creswell (2009, p. 13) highlights that survey research "provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population". Surveys emerged to be a robust method to collect quantifiable data. One of the primary benefits of employing surveys is that they are versatile and can be conducted in almost any setting, and a survey enables a researcher to distribute survey questionnaires to a large number of participants to complete when they are available (Plooy-Cilliers and Cronje, 2014).

For this study, the survey enabled the researcher to collect data from a large number of students during a reasonable period, which might have been difficult if other methods were employed. Despite the many benefits of survey method, Plooy-Cilliers and Cronje (2014) cautioned that

for a successful survey, the researcher should have an extensive understanding of the amount of error resulting from data collection and interpreting data from surveys. To minimise errors resulting from data collection, the researcher created short and straightforward questions to discourage students from skipping questions and to obtain better completion rates.

3.4.2 Interviews

This study used face-to-face semi-structured interviews to collect data from the librarians at UNAM and NUST. Semi-structured interviews enable the researcher to be flexible and allowing the respondents to elaborate on the point of interest (Denscombe, 2010). Interviews are used mainly to collect qualitative data. They are a form of conversation, which enables a researcher to pose questions to participants with a purpose of finding in-depth information about a phenomenon under investigation (Plooy-Cilliers & Cronje, 2014). During an interview, “the more time spent with a key informant, the better the trust between the two which will lead to in-depth and accurate information” (Kumar, 2014, p. 192). Interviews are necessary when the study requires comprehensive information about a specific issue. Denscombe (2010) states that interviews offer advantages such as their ability to produce systematic and detailed data as well as a high response rate. Additionally, interviews are said to enhance validity of data, this implies that "direct contact at the point of the interview means that the data can be checked for accuracy and relevance as they are collected" (Denscombe, 2010, p. 192). The interviews were beneficial to this study because they allowed the researcher to elaborate on the questions, which enabled the participants to give clear and concise responses.

However, one of the major drawbacks of interviews identified by Denscombe (2010) is that they are based on what the key informants say but not what they do. Another drawback established by the study was that respondents were providing unnecessary information especially if they did not understand the questions fully. The researcher picked this up and made sure that each participant understood the questions and probed where necessary.

3.5 Population

Gray (2009) defines a study population "as the total number of possible units or elements that are included in the study" (p. 148). A population is also defined as the "totality of objects in the 'real world' in which we are interested" (Gilbert, 2008, p. 167). In other words, a population of a study is the entity that the researcher is interested in basing a study.

The unit of analysis for this study comprised UNAM and NUST as well as the respondents as follows:

- 11,251 students from the UNAM main campus (R. Ihemba, personal communication, March 10, 2017)
- 8,706 students from NUST main campus (S. Ndjimba personal communication, March 03, 2017)
- 46 librarians from UNAM (L.N. Mbangula, personal communication, March 10, 2017)
- 47 librarians from NUST (S. Shoopala, 7 March, 2017)

3.6 Sample

A sample is necessary when it is impossible to study the whole population. Sampling is defined by Durrheim (2006, p. 49) as "the selection of research participants from an entire population, and involves decisions about which people, settings, events, behaviours, and/or social processes to observe", the aim of sampling is to be able to select a sample that will enable the researcher to make inference to the whole population (p. 49). This author cautions that it is essential for the researcher to select a sample that is large enough to allow the researcher to make inferences about the population. There are different methods for selecting a sample. For this study, a stratified quota sampling was used to choose the number of students, while purposive or judgemental sampling was employed to select the librarians. These sampling techniques are discussed in the following part.

3.6.1 Stratified quota sampling

The study employed a double sampling technique known as stratified quota sampling to draw students' participants for the study. A double sampling technique is described as a sampling method that uses multiple sampling during different phases of sampling (Daniel, 2012). Therefore, the researcher combined stratified with quota sampling to generate a sufficient sample size for the study. Stratified quota sampling technique is necessary when the researcher is not in possession of a sampling frame with adequate supplementary information to allow for stratification sampling (Daniel, 2012). Stratified sampling is a probability sampling technique, which is "used to establish a greater degree of representativeness in situations where populations consist of subgroups or strata" (Durrheim & Painter, 2006, p.136). Quota sampling, on the other hand, is a non-probability sampling technique, which "involves selecting cases, by opportunity-based selection methods, according to some predefined characteristics of the population" (David & Sutton, 2011, p 231).

The first step in stratified sampling is to split the population into subunits (Plooy-Cilliers, 2014). In this study, the population of students was divided into subgroups namely first, second, third and fourth-year students who were of essential interest to the researcher. According to Neuman (2011) the second step in stratified sampling is to use the sampling frame to select participants from each stratum by employing either simple random or systematic sampling. It is worth noting that it was not possible to get the sampling frame for the participants in this study, which is the requirement for stratified sampling. Therefore, the researcher employed quota sampling to draw participants from each year of study categorised as first, second, third and fourth year. The table below provides the actual number of students per year of study registered for the academic year 2017 at NUST and UNAM main campuses.

Table 3.1: NUST and UNAM Main Campus Students for Academic Year 2017

YEAR OF STUDY	NUST	UNAM
1st Year	3,691	4,317
2nd Year	2,268	3,006
3rd Year	2,263	2,085
4th Year	484	1,843
Total	8,706	11,251

Shih et al. (2011) recommend a confidence level of 95% and a margin of error of 5 % when selecting a sample size for a large population. Given this, the same parameter was taken into consideration when selecting a sample for this study. Using Cochran's sample size formula (Cochran, 1977) the required return sample size for NUST is 368 and for UNAM is 372 students respectively. However, Babbie and Mouton (2001) state that a response rate of 50% is adequate for analysis and recording, 60% is considered good and 70% very good. Based on this, to reduce the 740-sample size to a manageable number for this study, the sample is reduced by 50% to 370 (184 students from NUST and 186 students from UNAM). This should be achieved, as the questionnaire was administered face-to-face. According to Cochran (1977), the strata sample size is determined by the following formula: $n_h = (N_h / N) \times n$ which is explained below:

n_h = the sample size for each stratum

N_h = the population for stratum

N = the total population size

n = the total sample size

Given the formula above, the following strata sample sizes were selected from each stratum:

1. NUST: 78 first-year, 48 second-year, 48 third-year and 10 fourth-year students.

2. UNAM: 72 first year, 49 second-year, 34 third-year, and 31 fourth-year students. These numbers translate to a total sample size of 370.

3.6.2 Purposive or Judgemental sampling

Purposive and judgemental sampling is a non-probability sampling technique used for qualitative methods; it entails selecting participants that are considered to have appropriate knowledge on the subject being investigated. David and Sutton (2011) define purposive sampling, as a sampling technique where the participants are selected according to the researcher's known knowledge and opinion about the participants they think are appropriate for the subject being investigated. According to Babbie (2008, p. 204) "it is appropriate to select a sample from the knowledge of a population, its element and the purpose of the study". For this study, two acquisition librarians were selected, one from each institution. These librarians were believed to have a better knowledge about the acquisition of print and electronic materials in these libraries as compared to other librarians.

3.7 Research instruments

Seaman (as cited in Mzee, 2015, p16) defines research instruments as the “devices to collect data such as questionnaires, tests, structured interview schedule and checklist”. Research instruments are tools designed by the researcher to engage and collect data from the participants in the study. The study used both closed and open-ended survey questionnaire to collect quantitative data from the students and unstructured interview guide to collect qualitative data from the librarians. These research instruments were designed incorporating concepts derived from the DTPB as the grounding theory for this study. Besides, the instruments were designed in such a way that they address the objectives of the study.

3.7.1 Survey questionnaire

A survey questionnaire is one of the widely used research data collection instruments in the world. According to Vogt (as cited in Kanjee 2006, p. 484) a questionnaire is a "group of

written questions used to gather information from respondents, and it is regarded as one of the common tools for gathering data in social sciences". This study used a questionnaire (See Appendix D) consisting of closed and some few open-ended questions. According to Gilbert (2008, p.191) "closed-ended questions should be used where alternative replies are known, are limited in number, and are clear-cut". The questionnaire was the ideal instrument for collecting data from the study's large sample.

One of the advantages of using a closed-ended questionnaire is that it is less time consuming because respondents are only allowed to choose from a pre-determined set of options. This was true for this study as most of the participants completed the questionnaire within a short time as most of the questions allowed them to tick their preferred options. Additionally, Gilbert (2008) states that closed-ended questions can be precoded, which makes it easier for data analysis. The drawback of the closed-ended question is that respondents may have a different opinion, which is not part of the options provided in the questionnaire (Gilbert, 2008). The open-ended questions allowed the respondents to write their responses in their own words without restrictions. However, open-ended questions also have their drawbacks, which entail the production of responses that may be ambiguous and difficult to categorise.

In this study, the questionnaire consisted of two sections namely section A and section B with a total of 20 closed-ended questions and 1 open-ended question. Section A was aimed at collecting demographic data of students while section B collected data on the extent to which print format is preferred, reasons for possible preference of print resources in the digital era as well as the challenges encountered by students when using print library materials.

3.7.2 Interview guide

An unstructured interview guide (see Appendix E) was used to collect qualitative data from the librarians. Kumar (2014) describes interview guides as a list of issues and discussion point that a researcher intends to discuss with the research participants. Interviews allow the researcher to ask the participants to provide a detailed on a specific question. The interview guide consisted of eight questions, which looked at the extent to which print format is preferred, the challenges facing students when using print resources as well as to find out the collection development policies regarding print resources. Interview guides are vital as they provide guidelines regarding how each question should be approached and thereby probing further questions so that one can have an in-depth analysis of the study.

3.8 Procedure

The procedure followed by researcher, entailed seeking permission from the institutions; how the participants were approached and how the data was collected. Cresswel (2009) state that when explaining the data collection procedure, a researcher should indicate to the reader the timeline of activities for data collection. In this study, the researcher requested permission to carry out the study at UNAM and NUST. The researcher was issued with a research permission letter (see Appendix A and B) before collecting data. An informed consent letter (see Appendix D) was distributed to the participants for signature to agree to take part in the study. The data were collected from August to September 2017. A total of 370 questionnaires were distributed to the students to be completed. Thereafter, the researcher collected the 370 questionnaires. The initial plan was to self-administer the questionnaires to the students; however, taking into consideration the sample size of this study the questionnaires were left at different points at the institutions. At NUST, the questionnaires were distributed to the students during the information literacy classes held at the library, some questionnaires were left at different points

in the library such as circulation, reference desk, and study collection to be distributed to the students when visiting the points, and collected at the end of the day. At UNAM, some questionnaires were left at the reference desk at the main library, and some were left at the man Rights and Documentation Centre (HRDC). Some questionnaires were left at the Faculty of Health Resource Centre, and some were given to some lecturers to distribute to their classes and collected after completion. Prior to the completion of the questionnaire, participants were asked to indicate if they had already completed the questionnaire and only participants that had not completed the questionnaire were handed the questionnaire to complete. This was done to avoid participants filling the questionnaire more than once.

The researcher made appointments to schedule face-to-face interviews with the librarians at UNAM and NUST. The interviews took place at the librarians' offices during their most convenient time. The librarians were informed about the purpose of the research and requested to sign a consent form. Permission was sought to use a voice recorder, and both librarians agreed to be recorded. The researcher conducted both interviews face-to-face.

3. 9 Validity and Reliability

According to Gravetter and Forzano (2009, p. 157) validity of a research study "is the degree to which the study accurately answers the question it was intended to answer". Koonin (2014) posits that to determine the validity of the study the researcher should answer the following question "do the findings reflect what is happening in a given situation?" (p. 256). To ensure validity, the questionnaire was pretested on ten students who were part of the sample. However, they did not form part of the actual study. According to Kanjee (2006), pretesting of the data collection instruments to a small number of respondents before the actual research will enable the researcher to pick up any inconsistencies and gaps in the instruments. Similarly, Walliman (2005) asserts that it is necessary to conduct a pilot study on a small number of participants from the population of interest, to establish any possible errors or problems that may arise. For

this study, the data from the pretested questionnaire was analysed, and from this, the researcher realised that there were gaps, which needed to be addressed; therefore, this led to the amendment of the questionnaire to add few questions that were missing. Additionally, for the purpose of validity the researcher employed different data collection methods namely interviews and survey. Patton (2002) believes that combining different data collection methods into a single study strengthens its validity.

Reliability, on the other hand, is the stability or the consistency of the measurement (Gravetter & Forzano, 2009). Researchers are aiming at collecting data that are consistent, and that meet the objectives of their studies. Mouton (as cited in Koonin, 2014 p, 254) emphasises that "reliability refers to the fact that different research participants being tested by the same instrument at different times should respond identically to the instrument." In other words, reliability is when another researcher can retest the data and reach the same conclusion. To ensure reliability of the data in this study, both questionnaires and interview guides consisted of simplified questions to ensure that the participants understood the questions, which result in them giving clear answers, which is believed to minimise errors.

3.10 Data analysis

Data analysis involves arranging and categorising data to make meaning out of it (Gillham, 2000). Quantitative data gathered from the questionnaires were analysed using a computer-based Statistical Package of the Social Sciences (SPSS) to obtain descriptive statistics. The questionnaires were numbered from 1-370, and the researcher checked each questionnaire to check for completeness. The closed-ended questions were assigned code numbers, which was the requirement for entering data in SPSS. Additionally, the responses from the questionnaires were also assigned codes, and they were entered on the SPSS spreadsheet for analysis. After that, the findings were presented in form of tables.

The qualitative data was analysed through content analysis. Bauer (as cited in Flick 2009, p. 323) defines content analysis as "one of the classical procedures for analysing textual material no matter where the material comes from – ranging from media products to interview data". Content analysis was suitable for this study because of the open-ended questions, which required the researcher to describe and quote response from the participants. Thereafter, the data was presented under key themes, which, on the one hand, were derived from the objectives of the study and, on the other hand, those that emerged from the content analysis.

3.11. Research ethics

Research ethics offer researchers with guidelines regarding what is considered acceptable and unacceptable behaviour (Plooy-Cilliers, 2014). "A researcher who acts with integrity adheres to ethical principles and professional standards that are essential for practising research in a responsible way" (Louw, 2014, p. 262). The researcher's responsibility is to make sure that all the ethical protocols are adhered to at all times. Several ethical issues must be taken into consideration when dealing with human participants. As this study involved human participants, the researcher had to apply for ethical clearance from the UNAM Research Ethics Committee (UREC) (see Appendix C) which was granted before data collection.

Many critical ethical issues may affect the participants in the research, and these are informed consent, autonomy and confidentiality. Informed consent refers to briefing the research participants about the purpose of the study. Louw (2014) advises that, with informed consent, the participants must know that they are part of the study. The participants should give their permission to participate in the study by signing a consent form. This study is no exception to the issue of consent. The purpose of this study was explained to each participant. However, they were also given an option to withdraw without any adverse consequence. The participants

were requested to read and sign the informed consent to indicate that they had understood the purpose of the study and they were willing to take part.

Anonymity and confidentiality are considered an essential concern for research participants. Confidentiality refers to the promise that "even though we will be able to match the participant's identities to their research responses, that information will be known only to the researcher and will be made available to no one else" (Louw, 2014, pp. 267-268). On the other hand, anonymity assures participants "that we will not record their names at any stage of the research process, and that we will not be able to match their identity to their research responses in any way" (Louw, 2014, p. 267). It is for this reason that the study used codes instead of names of the institutions to conceal and protect their identities. The students were not required to provide their personal information on the questionnaires. The voice recorders and questionnaires were kept under lock where they were only accessible to the researcher.

3.12. Evaluation of research methodology

At the end of the methodology chapter, researchers are required to provide an evaluation of the methodology employed in the study. The evaluation of the methodology inform the readers and future researchers about what went well and what did not go well with the methodology, this is believed to assist other researchers in avoiding the same challenges if the same study is to be replicated (Nengomasha, 2009). Researchers such as Bell (2005) and Creswell (2009) acknowledge that each research methodology has some drawbacks. These drawbacks are believed to be neutralised by the use of mixed methods (Creswell, 2009). Davis (2014) cautioned that the methodology selected should ensure the validity of the findings. The current study combined both quantitative and qualitative methods to establish the use of print library material in the era of digital resources among UNAM and NUST students.

Despite the advantages of survey questionnaires, one challenge encountered was non-completeness of questionnaires, and this was difficult to make a follow up with the participants due to anonymity and confidential issues stipulated in this study. To solve the problem of non-completeness of questionnaires, the researcher had to redistribute questionnaires to new participants. One challenge that the researcher encountered during the interview was that the interviews took place during working hours and the participants answered their work telephones, which resulted in the researcher having to pause the recorder. If this research is to be undertaken again, the researcher should consider using survey monkey because it is easier to analyse data and it does not require printing of questionnaires.

3.13. Summary

This chapter looked at the research design used in this study. A mixed method approach was used to enable the researcher to collect rich data to address the objectives of the study adequately. The population of the study comprised librarians and students at both institutions. Stratified quota sampling was used to select students, while librarians were chosen purposely. Questionnaires were used to collect data from the students, and unstructured interview guides were used to gather information from the librarians. Content analysis was used to analyse qualitative, while SPSS was used for quantitative data. The chapter also looked at how the researcher addressed ethical issues in this study and finally, the chapter evaluated the research methodology employed in the study. The next chapter presents the findings of this study.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION

4.1 Introduction

This chapter presents the data collected from questionnaires and interviews with students and librarians from UNAM and NUST. According to Gilbert (2008), data analysis and presentation deal with "organising the information into a form that will facilitate your understanding of its meaning using whatever modern technology is appropriate" (p. 324). The data gathered from the questionnaires were coded and analysed using SPSS and presented in forms of frequency tables. In the tables, the percentage was rounded off to one decimal point while in the description of tables the numbers were rounded off to the nearest number. Additionally, data obtained from the interview was analysed through content analysis and presented in the form of descriptive narrative and some selective direct quotes from the participants.

A sample of 370 students and 2 librarians was selected to take part in the study, all 370 questionnaires were returned, and therefore a 100 % response rate was attained. It should be noted here that the number of respondents indicated for some tables (N=) varies from the 370 as what is captured is the number of respondents for that particular question. Additionally, interviews with the two librarians were conducted. Babbie (2013) state that a response rate determines the representativeness of the sample; therefore, the higher the response rate, the less chance of significant non-response bias. The chapter is divided into sections A and B. Section A, covers data collected from the student questionnaire while section B has data from the interviews held with librarians. It is, however, worth noting that where possible, the data from the interviews and questionnaires are integrated, especially responses that address the same objective.

4.2 Section A: Questionnaire data

This section presents data collected from the student questionnaire. Firstly, the section presents the demographic data of the students. Secondly, the section proceeds to show data from the questionnaire under the following key thematic issues:

- Format Preference
- The frequency of using print resources;
- The frequency of printing and scanning materials by the students;
- The frequency of using different print resources;
- Importance of print resources in the student's studies;
- Significance of print resources in the digital era;
- Reasons for preferring print resources;
- Reasons for preferring electronic resources;
- Challenges when using print resources;
- Suggestions on how libraries can improve the print collection

4.2.1 Demographic data

Demographic data entail gender, age category as well as the years of study of the participants. The institution of education, study programme and mode of study of the participants also formed part of the demographic analysis.

Table 4.1: Gender representation of the participants

(N= 370)

Gender	Frequency	%
Male	185	50.0 %
Female	185	50.0 %
Total	370	100.0 %

Table 4.1 above shows that 185 students were males and 185 were females. This means both male and female students obtained an equal percentage (50 %) in this study. It is worth noting that the equal percentage of males and females was purely accidental. Table 4.2 below shows the age categories of the respondents.

Table 4.2: Age Category of the participants

(N=370)

Age	Frequency	%
Less than 20 years	68	18.4 %
20-25 years	209	56.5 %
26-30 years	60	16.2 %
Over 30	33	8.9 %
Total	370	100.0

Table 4.2 above shows that more than half of the respondents 209 (57 %) were between the ages of 20-25 whereas 68 (18 %) of the respondents were less than 20 years of age. A total of 60 (16 %) were between ages 26 – 30 while about 33 (9 %) were over the age of 30. Table 4.3 below shows the participants' years of study

Table 4.3: Participant's year of study

(N=370)

Year of study	Frequency	%
First year	153	41.4 %
Second Year	96	25.9 %
Third year	80	21.6 %
Fourth year	41	11.1 %
Total	370	100.0%

Table 4.3 above depicts that most of the students 153 (41 %) were in their first year while 96 (26 %) were in their second year. Third-year students were 80 (22 %), and only 41 (11 %) were in their fourth year of study. Table 4.4 below shows the participants institution of studies

Table 4.4: Participant's institution of study

(N=370)

Institution	Frequency	%
UNAM	186	50.3 %
NUST	184	49.7 %
Total	370	100.0 %

Participants were asked to indicate their institution of study. In table 4.4 above, about 186 (50 %) of the students were from UNAM while 184 (49.7%) were from NUST. This means that the number of participants at UNAM was slightly higher than NUST because the sample at UNAM was marginally larger than the sample at NUST. Table 4.5 below shows the course of studies of the students.

Table 4.5: Participant's study programme

(N=341)

Study programme	Frequency	%
Accounting	37	10.0%
Agriculture	1	.3%
Architecture	3	.8%
Arts	6	1.6%
Business Administration	9	2.4%
Communication	8	2.2%
Computer Science	9	2.4%
Criminal Justice	22	5.9%
Economics	2	.5%

	Education	32	8.6%
	Engineering	13	3.5%
	English	6	1.6%
	Geo-Information Science	2	.5%
	Human Resources Management	12	3.2%
	Informatics	1	.3%
	Information Technology	1	.3%
	INSTEM	4	1.1%
	Land Administration	3	.8%
	Law	28	7.6%
	Library and Information Science	37	10.0%
	Logistics supply chain management	10	2.7%
	Marketing	2	.5%
	Media Studies	4	1.1%
	Medical Laboratory Sciences	3	.8%
	Military Science	2	.5%
	Natural resources management	1	.3%
	Nursing science	16	4.3%
	Pre-Hospital Emergency Care	17	4.6%
	Property studies	1	.3%
	Public Management	4	1.1%
	Radiography Diagnostic	5	1.4%
	Records and Archives Management	7	1.9%
	Regional and Rural Development Planning	2	.5%
	Science	15	4.1%
	Social Work	6	1.6%
	Tourism	5	1.4%
	Transport Management	5	1.4%
	Total	341	92.2%
No response		29	7.8%
Total		370	100.0%

Students were asked to indicate their study programmes; Table 4.5 above demonstrates that 341 (92 %) participants responded to this question. An equal number of respondents 37 (10 %) were studying accounting, library and information sciences. Students who are studying education amounted to 32 (9 %), 28 (8 %) were in the law field while 22 (6 %) were doing

criminal justice. As indicated, the rest of the courses received less than 5 % of respondents. Respondents who did not state their course of study amounted to 29 (8 %).

4.2.2: Mode of study

The students were asked to indicate their mode of study. Most of the students 296 (80 %) were studying fulltime, and only 72 (20 %) were studying part-time. About 2 (1 %) of the participants did not answer this question.

4.3 Extent to which print format is preferred

The first objective of this study was aimed at finding out the extent to which print resources is preferred in the era that is dominated by electronic resources. The following subthemes addressed this objective: format preference; frequency of using print resources; frequency of printing and scanning materials to read in preferred formats; the importance of different print resources in student's studies as well whether print resources are still significant in the digital era.

4.3.1 Preferred format according to the institution of study

Participants were asked to indicate which information format they prefer. Table 4.6 below shows the results.

Table 4.6: Preferred format and institution of study

(N=370)

		Preferred format				
Institution		Print	Electronic	Both Print and Electronic	No response	Total
	UNAM	68 (36.5%)	39 (21.0%)	79 (42.5%)	0	186 (100.0 %)
	NUST	62 (33.8 %)	27 (14.5 %)	94 (51.4 %)	1 0.3%	184 (100.0 %)

Table 4.6 shows that most of the students preferred to use both print and electronic resources, with a significantly high number 94 (51 %) recorded from NUST and 79 (43 %) from UNAM. Additionally, a relatively higher number 68 (37 %) of students from UNAM indicated that they preferred print resources as compared to 62 (34 %) from NUST. About 39 (21 %) students from UNAM stated that they preferred electronic resources while only 27 (15 %) of students at NUST preferred electronic resources. Only 1 (0.3%) of the respondents did not respond to this question. Given the above results, it is evident that most of the students preferred hybrid collection as they indicated that they prefer both print and electronic resources. However, it seems student's preferred print format as compared to electronic resources.

4.3.2 Preferred format according to the year of study

Participants were asked to indicate their year of study and which format they preferred. The aim of this question was to establish whether the year of study has any impact on the use of print resources by UNAM and NUST students. The result was cross-tabulated in Table 4.7 below:

Table 4.7: Preferred format and year of study

(N=370)

Year of study		Preferred format				Total
		Print	Electronic	Both print and electronic	No response	
	First Year	58 (38 %)	27 (17.6%)	68 (44.4%)	0	153 (100 %)
	Second Year	33 (34.4%)	12 (12.5%)	51 (53.1%)	0	96 (100%)
	Third Year	25 (31.6%)	17 (21.5%)	37 (46.8%)	1 (0.3%)	80 (100%)
	Fourth Year	14 (34.1%)	10 (24.4%)	17 (41.5 %)	0	41 (100%)

Table 4.7 above depicts that the highest number of First Year students 68 (44.4 %) prefer both print and electronic format and 58 (37.9%) preferred print format only. More than half of the Second-Year students 51 (53.1 %) preferred both print and electronic resources; however, only 33 (25.4%) prefer print resources. Most of the Third-Year students 37 (46.8%) prefer both print and electronic and about 25 (31.6%) preferred print resources. Finally, the majority of Fourth-Years 17 (41.5%) prefer both print and electronic while 14 (34.1 %) preferred print resources only.

4.3.3 Frequency of using print resources from your university library

The participants who preferred print resources were asked to indicate how often they used print resources from their University Library. Table 4.8 below shows the results.

Table 4.8: Frequency of using print resources

(N=305)

		Frequency	%
	All time	60	16.2 %
	Most of the time	115	31.1 %
	Sometimes	97	26.2 %
	Rarely	23	6.2 %
	Never	10	2.7 %
	Total	305	82.4 %
No Response		65	17.6 %
Total		370	100.0 %

Table 4.8 shows that most students 115 (31 %) used print resources most of the time, while 97 (26%) used the print resources sometimes and 60 (16 %) indicated that they used print resources all the time. Additionally, 23 (6 %) rarely used print resources, and only 10 (3 %) showed that they never used print resources from their university library. It is worth mentioning

that 65 (17.6 %) did not answer this question, which includes those that did not prefer print resources and those that preferred print resources but preferred not to answer this question.

4.3.4 Frequency of printing materials from the Internet

The respondents were asked to indicate how often they print materials from the Internet. This question was asked because some studies in the literature reviewed reported that users could do anything to make sure that they have their preferred format. Users who prefer print resources may opt to print if an information source is only available in electronic format so that they can read in print, which is their preferred format. Table 4.9 below shows the results.

Table 4.9: Frequency of printing materials from the Internet

(N=325)

Institution	Printing materials from the Internet					No response	Total
	All the time	Most of the time	Sometimes	Rarely	Never		
UNAM	40 (22%)	57 (31%)	34 (18%)	15 (8%)	7 (4%)	32 (17 %)	186 100.0 %
NUST	17 (9 %)	60 (33 %)	59 (32 %)	22 (12 %)	3 (2%)	23 (12 %)	184 100.0 %

Table 4.9 above indicates that most of the students printed materials from the Internet most of the time, with a high number 60 (33 %) of students recorded at NUST and 57 (31 %) recorded from UNAM. Students also indicate that they printed materials sometimes with 59 (32 %) recorded at NUST and 34 (18 %) recorded at UNAM. Less than 15 % of students from both institutions indicated that they rarely or never printed materials from the Internet.

4.3.5 Frequency of scanning materials

Subsequent to the findings above, students were also asked how often they scanned documents to read in in electronic format. This question was necessary because some studies in the literature reviewed indicated that users could do anything to make sure that they have their preferred format. Therefore, users who prefer electronic resources may opt for scanning hard copies if the information source is only available in print format to read in their preferred format. Table 4.10 below shows the findings.

Table 4.10: Frequency of scanning materials

(N=349)

Institution	Scanning materials					No response	Total
	All the time	Most of the time	Sometimes	Rarely	Never		
UNAM	12 (6.0%)	18 (10.0%)	33 (18.0%)	52 (27.9%)	67 (36.0%)	4 (2.1%)	186 100%
NUST	5 (2.7%)	15 (8.0 %)	36 (19.5 %)	64 (34.7%)	47 (26.0%)	17 (9.1%)	184 100%

The majority of students from UNAM 67 (36 %) and about 47 (26 %) NUST students indicated that they have never scanned print resources to read in electronic format. Subsequently, 52 (28%) of UNAM and 64 (35 %) students from NUST rarely scanned hard copies. About 33 (18 %) UNAM students and 36 (20%) NUST students stated that they scanned hard copies only sometimes. Less than 15% of students from both institutions specified that they scanned hard copies sometimes and most of the times respectively.

4.3.6 Frequency of using the different print resources for your studies

Table 4.11, below shows the results of how frequently the students were using different print resources in their studies.

Table 4.11: Frequency of using different print resources for your studies

(N= 370)

Materials	Daily	Weekly	Monthly	Never	No Response
Print books	198 (53.5 %)	64 (17.3%)	35 (9.5%)	10 (2.7%)	63 (17.0%)
Print journal	58 (15.7 %)	87 (23.5%)	88 (23.8%)	65 (17.6 %)	72 (17.6%)
Print reference materials	73 (19.7%)	65 (17.6%)	92 (24.9 %)	69 (18.6 %)	71 (19.2 %)
Print short loan material	84 (22.7%)	87 (23.5%)	70 (18.9 %)	53 (14.3 %)	76 (20.5 %)
Print newspaper	167 (45.1%)	58 (15.7%)	34 (9.2%)	43 (11.6 %)	68 (18.4%)

Table 4.11 above shows that most 198 (54 %) of the respondents used print books daily while only 10 (3 %) participants indicated that they never used print books. About 58 (16 %) used print journals daily while 72 (18 %) never used journals. About 84 (23 %) used print short loan materials on a daily basis while 53 (14 %) never used short loan materials, and 167 (45 %) also used print newspapers daily.

4.3.7 Importance of print resources in student's studies

Table 4.12 below presents the responses on the importance of print resources in student's studies.

Table 4.12 Importance of print resources**N= 370**

	Very important	Important	Somehow important	Not important	No Response
Books	256 (69.2%)	37 (10.0%)	8 (2.2 %)	3 (0.8 %)	66 (17.8 %)
Journal	108 (29.2 %)	96 (25.9 %)	67 (18.1 %)	27 (7.3 %)	72 (19.5%)
Reference materials	119 (32.2 %)	74 (20.0 %)	79 (21.4 %)	28 (7.6 %)	70 (18.9%)
Short loan material	137 (37.0 %)	82 (22.2%)	57 (15.4 %)	23 (6.2 %)	71 (19.2 %)
Newspaper	122 (33.0 %)	87 (23.5 %)	64 (17.3 %)	27 (7.3 %)	70 (18.9%)

Table 4.12 above shows that most 256 (69 %) participants stated that books were important in their studies, followed by short loan materials with 137 (37 %) and newspapers at 122 (33 %). About 119 (32 %) participants indicated that reference materials were very important while only 108 (29 %) reported that journals were very important in their studies.

4.3.8 Format preferred to read from for different information sources

Table 4.13 below highlights the findings of the preferred format for each information sources listed.

Table 4.13: Format preference for different information sources**(N=370)**

	Print	Electronic	No Response
Books	309 (83.5 %)	48 (13.0%)	13 (3.5%)
Journal	121 (32.7 %)	228 (61.6 %)	21 (5.7%)
Newspapers	258 (69.7 %)	85 (23.0 %)	27 (7.3%)
References	189 (51.1 %)	155 (41.9%)	26 (7.0 %)

Table 4.13 above shows that a high number 309 (84 %) of students preferred to read from print books while only a mere 48 (13 %) of students preferred to read from electronic books. Moreover, 258 (70 %) mostly used print newspaper while only 85 (23 %) preferred electronic newspapers. A large number of respondents 228 (62 %) preferred electronic journal and only 121 (33 %) prefer print journals. About 189 (51 %) respondents indicated that they liked to consult print reference materials while 155 (42 %) consulted electronic resources.

According to the interview results from the librarians, it is evident that students at UNAM and NUST still preferred to use print resources. It is also apparent that print books were still in high demand in this era as compared to electronic books. It is also evident that students preferred electronic journals as compared to print journals.

The librarian from University Library BB indicated about 80% of the materials that were acquired at the University library were in print format, and according to the borrowing statistics generated by the library management system (Sierra), most of the students were still borrowing print resources from the library. In addition, the librarians at the University library AA indicated that in most cases students requested for print books and shied away from using electronic books. Print journals seemed to be underutilised in comparison to electronic journals.

4.3.9 Significance of print resources in the digital era

The students were asked to indicate their opinion on whether print resources were still relevant in today's digital age. Most of the participants 240 (65 %) stated that print resources were still significance in the digital era. A mere 23 (6 %) did not think that print resources were still significance and 43 (12 %) were not sure of the significance of print resources in the digital era. About 64 (17 %) did not respond to this question.

4.4 Reasons for possible preference of print resources in the digital era

The second objective of the study was to identify the reasons for the preference of print resources in this era. This objective was addressed by the following themes, reasons for preferring print resources; reasons for preferring electronic resources in the digital age. Students were asked to indicate why they preferred to use print resources. This was a multiple response question, where students could choose more than one response; therefore, the percentage does not come to 100%. Only 304 students out of 370 participants completed this question. Table 4.14 below shows the findings.

Table 4.14: Reasons for preferring print resources

(N=304)

Reasons for print preference		UNAM	NUST
	They are convenient	65 (50.4%)	64 (49.6%)
	Easy to read from	96 (53.9%)	82 (46.1%)
	They are easy to locate	36 (50.7%)	35 (49.3%)
	Have higher quality graphics, photos and tables	13 (46.4%)	15 (53.6%)
	They are less eyes straining	2 (8.3%)	22 (91.7%)
	They are more reliable	0 (0.0%)	14 (100.0%)
	They are easy to note from	0 (0.0%)	12 (100.0%)

Table 4.14 above shows that students found print resources easier to read as indicated by 96 (54 %) students from UNAM and 82 (46 %) students from NUST. Half 65 (50 %) of students from UNAM indicated that print resources were convenient and 64 (50 %) of NUST found print resources to be convenient. About 36 (51 %) UNAM students and 35 (49 %) NUST students stated that they preferred print resources because they were easy to locate. Additionally, 13 (46 %) UNAM students and 15 (54 %) indicated that they preferred print

resources because they had high-quality graphics and tables. Most of the students 22 (92 %) from NUST stated that reading in print resources was less eye-straining while only 2 (8 %) students from UNAM noted that reading in print resources was less eye straining. About 14 (100 %) of NUST students indicated that print resources were more reliable in comparison with electronic resources and none of the UNAM students found print resources to be reliable. A high number of NUST students 12 (100 %) indicated that they preferred print resources because they are easy to take notes from, while none of the students from UNAM chose this option.

4.4.1 Reasons for possible preference of electronic resources

Table 4.15 below shows the reasons why students preferred electronic resources. Only 50 participants responded to this question.

Table 4.15: Reasons for preferring electronic resources

(N=50)

Reasons for electronic preference		Frequency	%
	Available anytime	4	1.1%
	Can be stored efficiently	1	.3%
	Does not involve papers	1	.3%
	Easy to use	2	.5%
	Electronic format is faster to retrieve	1	.3%
	Electronic resources are cheap	1	.3%
	Electronic resources are convenient	10	2.7%
	Electronic resources are up to date	1	.3%
	I just do not like reading in print	1	.3%
	Provide unlimited information	1	.3%
	Saves readers time by clicking find function	1	.3%
	The ability to copy and paste	1	.3%
	They are easier to share	1	.3%
	They are easy to find.	17	4.6%
	They are easy to read from	2	.5%
	They are not vulnerable to tearing	1	.3%
	They are portable	4	1.1%
	Total	50	13.5%
No Response		320	86.5%
Total		370	100.0%

Table 4.15 above shows that 17 (5 %) of the participants stated that they preferred electronic resources because they were easy to find, 10 (3 %) indicated that electronic resources were convenient. Additionally, an equal number of students 4 (1%) reported that electronic resources were portable and were available anytime. The rest of the reasons scored less than 1 % as indicated in the table. About 320 (87 %) participants did not respond to this question; the reason being that this question was only intended for the participants who preferred electronic resources.

4.5 Challenges encountered by students when using print format in the digital era

The third objective of this study was aimed at finding out the challenges encountered when using print resources. The responses from both the students and librarians yielded crucial information to address this objective.

4.5.1 Challenges when using print resources

Participants were asked to indicate if they encountered any challenges with print resources. One hundred and thirty (35 %) stated that they had encountered challenges while most of the participants 176 (48 %) indicated that they had not faced difficulties with print resources. About 64 (17 %) of the participants did not respond to this question.

4.5.2 Challenges encountered

The participants were further asked to indicate the challenges encountered with print resources. This was a multiple response question, where students could choose more than one response; therefore, the percentage does not come to 100 %. Out of 370 participants, only 161 completed this question while 209 participants did not respond to the question. Table 4.16 below present the findings.

Table 4.16 Challenges when using print resources**N= 161**

		Institutions	
Challenges encountered		UNAM	NUST
	Difficulty in locating materials	20 (22.7%)	20 (27.4%)
	Outdated materials	44 (50%)	18 (24.7%)
	Missing materials on the shelves	25 (28.4 %)	26 (35.6 %)
	Materials do not meet my information needs	10 (11.4%)	14 (19.2%)
	Library staffs not available to assist	8 (9.1%)	6 (8.2%)
	Few copies in the library	33 (37.5%)	35 (47.9%)

Table 4.16 above shows that students found print resources in the library to be out-dated as indicated by 44 (50 %) students from UNAM and 18 (25 %) students from NUST. About less than 30 % of student, participants from both UNAM and NUST indicated that they had difficulty in locating materials. Additionally, 33 (38 %) UNAM students and 35 (48 %) indicated that they had problems with few copies of print materials in the library while about, 10 (11%) students from UNAM and 14 (19 %) stated that print library materials did not meet their needs. Lastly, 8 (9%) UNAM students and 6 (8%) NUST students specified that they encountered challenges of library staff not being available to assist.

Similarly, results obtained from the interviews with the librarians also highlighted the same challenges as observed by the students. The librarian from University Library AA indicated that students faced difficulties of locating the materials in the library since some materials were

still showing on the OPAC even though they were missing from the Library shelves. The librarian further indicated that students complained of "few library copies" which once borrowed, were only available upon return. This prompted the Library to establish a "Study Collection Department" which contained the recommended textbooks that could only be borrowed out by the students for a limited period, for instance, 2 hours a day.

Likewise, the librarian from University Library BB identified one major challenge that students face when accessing print resources hence, she stated, "One of the major challenges is that students are not aware of what is available at the Library because they did not attend the orientation programme which takes place at the beginning of each academic year." However, if for some reasons the student missed the orientation programme, they tended to find it difficult to find the materials when they came to the Library for the first time to work on their assignments.

4.6 Suggestions on how libraries can improve the print collection

The last section of the questionnaire required students to provide suggestions on how the libraries at these institutions of higher learning could improve their print collection, to ensure that the information needs of the students at the institutions were met effectively. This was multiple response questions, where students could choose more than one response; therefore, the percentage could not come to 100 %. Out of 370 participants, only 292 completed this question while 78 participants did not respond to the question. Table 4.17 below depict the results. Subsequently, the students also suggested which format the libraries at the institutions of higher learning should acquire while Table 4.18 shows the suggestions on which format to acquire.

Table 4.17 Suggestions on how to improve the print collection**(N=292)**

	Suggestions	Institution of Study	
		UNAM	NUST
	Constantly update the collection	94 (63.5%)	88 (61.1%)
	Purchase more copies	60 (40.5%)	54 (37.5%)
	Staffs must be willing to assist in the retrieval of materials	36 (24.3%)	34 (23.6%)
	Replace lost copies	41 (27.7 %)	37 (25.7 %)
	Do stocktaking	34 (23.0 %)	49 (34.0 %)

Table 4.17 above shows that the majority 94 (64 %) of UNAM students and 88 (61.1 %) indicated that the Libraries must consider updating their collection constantly, 60 (40.5 %) UNAM students and 54 (37.5 %) NUST students stated that the Libraries must purchase more copies to overcome the predicament of insufficient resources. About 36 (24.3 %) UNAM students and 34(23.6 %) NUST felt that library staff members must be willing to assist the users in the retrieval of information while 41 (28 %) UNAM students and 37 (26 %) suggested that lost copies must be replaced. Lastly, 34 (23 %) UNAM students and 49 (34 %) NUST students suggested that the Libraries must do annual stocktaking. Table 4.18 below shows the suggestions made by the students on which format to acquire.

Table 4.18: Suggestion on which format to acquire**(N= 368)**

	Suggestions	Institution of Study	
		UNAM	NUST
	Print	34 (18.4%)	35 (19 %)
	Electronic	21 (11.1 %)	11 (6.0%)
	Both print and electronic	130 (70 %)	137 (74.5%)
	No response	1 (0.5)	1 (0.5)
Total		186 (100%)	184 (100%)

Table 4.18 above shows that a high number 137 (75 %) of NUST students and 130 (70 %) UNAM students indicated that the Library should acquire both print and electronic resources. About 34 (18 %) UNAM students and 35 (19 %) stated that the Library should purchase print resources and only 21 (11 %) UNAM students and 11 (6 %) NUST opted for electronic resources. About 2 (1 %) did not respond to this question.

4.7 Section B: Interview data

This section presents data from the interviews that relate to the fifth objective of this study, which was "To find out collection development policies regarding print resources in these libraries". This objective was only applicable to the librarians and not the students. The results are presented under the following themes:

- Views on print resources being replaced by electronic resources;
- Changes in the acquisition of print resources;
- Dealing with materials available in both print and electronic format;
- Guidelines for the purchase of print and electronic resources and

- Awareness of existing or new print resources available in the library

4.7.1 Views on print resources being replaced by electronic resources

The librarians were asked to discuss their views on the issue of print resources being replaced by electronic resources in the digital era. It became known that both librarians acknowledged that electronic resources were growing at a rapid pace and could gradually replace some print resources, especially journals. However, they were of the opinion that electronic resources would not replace all print resources. Both librarians indicated that even with an increase in electronic resources there were still materials that were only available in print format for some reasons hence electronic resources would not replace all the information available in traditional formats. The poor technological infrastructure was one of the reasons highlighted by the librarian from University Library BB through the following remarks "I do not believe that print resources will be completely replaced by electronic resources soon in Namibia because we are still behind with our information technology infrastructure".

4.7.2 Changes in the acquisition of print resources

The key informants were asked to discuss the changes in the acquisition of print resources in the last five years at their libraries. The Librarian from the University library AA acknowledged that in the previous five years there had been a gradual shift towards the acquisition of electronic resources. The librarian stated "we have reduced the purchase of print resources and we have slowly increased the acquisition of electronic resources because we need to keep up with the technological development at our University." The librarian from University Library BB indicated that there was a slight change in a sense that the budget for the acquisition of print books and electronic journals had been significantly increased. The librarian remarked that "we are buying a lot of print books as compared to electronic books; additionally we are also purchasing more electronic journals as compared to the print journals."

4.7.3 Dealings with materials available in both print and electronic format

The key informants were asked to explain how they dealt with acquiring materials that were available in both print and electronic format. The librarian from University Library AA acknowledged that it was a daunting task when deciding which format to acquire, as the decision depends on two factors namely “special request” and “general purchase”. The librarian explained that, with special request from the Library users, the acquisition librarian is required to ask the user who has requested the specific material about the format they want. However, with general purchase, the Library acquired electronic resources especially electronic journals as most publishers gave special offers. Additionally, the Library also purchased print books because they were in high demand, as most of the students did not have the appropriate skills to access electronic books. The University Library BB indicated that the decisions rested with the teaching staff and subject librarians. The teaching staff knows what is best for the students; therefore, they make recommendations on what format to acquire. The role of the acquisition librarian was to advise on which material would be beneficial in terms of accessibility, pricing and subscription conditions. It is worth noting that pricing played a very crucial role in the decision whether to acquire print resources or electronic, as the cheaper format was likely to be acquired.

4.7.4 Guidelines for the purchase of print and electronic resources

The librarians were asked to explain the guidelines that guided them when purchasing print and electronic resources. The study revealed that there were no guidelines in place at the two institutions. However, there was a collection development policy at University Library BB, which guided the Library on what materials to acquire. The librarian indicated that the issue of different formats had recently been added to the policy and it was not yet functional since the high authority was still reviewing it for approval. The University Library BB stated: "We are currently acquiring both formats only when there is a special offer from the publishers if there

are no special offers for both formats we acquire mostly print books and electronic journals." At University Library AA there no guidelines, the Librarian indicated: "What guide us are the people that have requested for the material. We strive to acquire materials in the requested formats; we are also looking at the pricing of different formats and select the cheapest format for our library."

4.7.5 Awareness of existing and new print resources available in the library

The key informants were asked about how the students were made aware of the existing and new materials. It seems there were different ways on how the students were informed about the new and existing print library materials. Both Libraries offered orientation programmes for all first-year students where they were introduced to the Library services. The findings further revealed that at University Library AA, there were subject librarians that offered classes on how to access resources. The subject librarians were responsible for teaching students how to search the online catalogue and where to locate the materials and other services in the library. At the University Library BB, the librarian indicated: "We compile a list of all the newly acquired materials monthly. This list is uploaded on the website for our users to see what we have in the library." Additionally, there was also a marketing committee that was responsible for promoting and creating awareness about the library services and University at large.

4.8 Summary

The chapter presented the result of the study. Quantitative data from the questionnaire was analysed through SPSS and presented mainly through frequency tables. Qualitative data from interviews was analysed manually through content analysis and presented through descriptive narrative and direct quotations from the respondents. The results indicate that most of the students preferred both print and electronic resources, with print resources being used more than electronic which can be argued that libraries should strive at all times to maintain a hybrid collection to meet the needs of their users. The next chapter discusses the findings.

CHAPTER FIVE: DISCUSSION AND INTERPRETATION OF RESEARCH FINDINGS

5.1 Introduction

This chapter discusses the findings of this study. The importance of interpreting the findings of the study is acknowledged by Welman, Kruger and Mitchell (2005, p. 253) who state that in the discussion chapter “the findings are not just repeated but their meaning and implication are explained in the light of the purpose of the study. The chapter looks at the results of the study, and compares them with the literature reviewed in Chapter 2. The main objective of this study was “To investigate the use of print library materials in the era of digital resources in the institutions of high learning in Namibia”. The discussion of the findings is under themes drawn from each objective as well as those which emerged through content analysis as presented earlier in Chapter 4. These are:

- format preference;
- frequency of using print resources;
- frequency of printing and scanning materials by the students;
- frequency of using specific print resources;
- importance of print resources in the student's studies;
- importance of print resources in the digital era;
- reasons for preferring print resources;
- reasons for preferring electronic resources;
- challenges of using print resources;
- suggestions on how libraries can improve the print collection;
- views on print resources being replaced by electronic resources;
- changes regarding the acquisition of print resources;
- dealings with materials available in both print and electronic format;

- guidelines that guide the purchase of print and electronic resources; and
- Awareness of existing or new print resources available in the library.

5.2 Extent to which print format is preferred

The first objective of this study was aimed at finding out the extent to which print resources are preferred in the era that is dominated by the proliferation of electronic resources. This objective was addressed by the following themes.

5.2.1 Format Preference

It was evident that most of the students still preferred print resources in comparison to electronic resources. When asked whether print resources were still heavily used in the libraries, the librarians indicated that print materials are still in great demand as the statistics generated by the Library Information Management Systems (Sierra) indicates that more students still borrow print resources from the library. It was further observed that most of the first-year students used print resources more frequently, followed by second, third and fourth-year students respectively. The high usage of print resources among first-year students may be attributed to the fact that these students were only used to print resources during their school years. Hence, even after joining the institutions of higher learning the trend continued. A study done by Bodomo et al. (2003) on students in Hong Kong discovered that a higher number of students visited the physical libraries more frequently to read and borrow print resources than to retrieve information from e-resources. Initially, more than half of the respondents indicated that they visited the library at least once a month to access physical material. Moreover, Mawindo and Hoskin's (2008) study on the medical students at University Malawi College Of Medicine found that medical students used both print and electronic resources. However, they prefer print materials to the e-resources. Similarly, Hamutumwa (2014) and Katjihingua (2001) study with distance students at UNAM observed that despite students using both electronic and

print resources, the majority preferred to use print format. The findings of this study confirm the findings of the studies mentioned above.

5.2.2 Frequency of using print resources

The findings revealed that most students use print resources most of the time. These findings corroborate the findings of Bodomo et al. (2003) and Dhanavandan et al. (2012) who discovered that participants in their studies visited the physical library more frequently to access physical materials. Moreover, these studies reveal that in the 21st century, a large number of students still prefer to use print resources despite the fact that UNAM as well as NUST offer wireless Internet access which can be used by the students when they are on campus to access library resources. However, even with the wireless Internet access, students still prefer to access physical libraries and use print resources. Hamutumwa (2014) noted that the high usage of print resources among distance student was rooted in the distance students at UNAM not having the necessary skills to search for online resources. This study did not establish whether the high usage of print format is attributed to the mere fact that students in Namibia are still accustomed to reading print materials despite the proliferation of digital resources or whether they lack skills to successfully execute search queries to access electronic formats.

5.2.3 Frequency of printing materials from the Internet by the students

Users in the digital era always have a choice between print and electronic format. If an information source is only available in electronic format users who prefer print resources may decide to print hard copies so that they can read in print format. Mawindo and Hoskin (2008) observe that students did not enjoy reading on computer screens hence they opted for paying to print materials that are only available in electronic format. Studies such as Levine-Clark (2006) and Schaffner (2001) on electronic books usage revealed that most of the participants expressed challenges with reading bulky text and the inability to highlight text in electronic,

which urged them to print out hard copies. In this study, most of the students from UNAM indicated that they printed materials from the Internet most of the time in order to read in print format in comparison to students from NUST. It is worth noting that both libraries provided photocopy services for their patrons. The library at UNAM provides a photocopy machine that allows students to load photocopy credit on their student accounts, which enables them to make copies. At NUST, the copy machines work with coins. The copy services provided by these libraries may be the reasons for the higher number of students printing from the Internet to read in print format. Given the above facts, it is clear that students are determined to repackage the information to their desired format.

5.2.4 Frequency of scanning print materials by the students

Subsequent to 5.2.3 above, users who preferred electronic format may choose to read entirely on the screen if the information is in digital format. However, if the information is only provided in print format, users who prefer electronic resources may opt for scanning in order to read in electronic format. A relatively higher number of students from both institutions indicated that they rarely scan documents to read in electronic format. It was discovered that there are no functional scanning services at UNAM and NUST for the library patrons. There is currently a lack of literature on the issue of students scanning documents to read in their preferred format. However, these findings seem to correlate with Singh (2013) who found that only a few students used the scanning equipment compared to the number of students who used print facilities. Therefore, the possible reasons for students not scanning library print resources are that they are comfortable reading in print format or the lack of scanning facilities.

5.2.5 Frequency of using different print resources

Slightly more than half 198 (54%) of the students who preferred print resources in this study indicated that they used print books daily in comparison to only 58 (16%) who use print journals daily. Mawindo and Hoskin (2008) observed that a higher preference of books might

be because students were familiar with books, unlike journals that they only come to encounter for the first time when they enter university. The study also revealed that about 73 (20 %) used reference materials daily, 84 (23 %) used print short loan materials daily and slightly less than half 167 (45%) of students used newspaper daily. The usage of newspaper on a daily basis may be attributed to the fact that newspapers are vital tools to communicate current affairs of a nation as established by Mawindo (2005) that “most of the students were consulting print newspapers not for their academic work but for their “general awareness of current event, both local and international” (p 95).

5.2.6 Importance of print resources in students’ studies

The students were asked to indicate the importance of different print resources in their studies. The majority of students indicated that books were most important in their studies followed by short loan materials, newspaper and reference materials. Less than 30 % of the participants stated that they found journals to be important in their studies. The findings of this study agree with the findings of Mawindo and Hoskin (2008) who found that medical students considered print books more important for their studies than journals. In this study reference materials comprised of encyclopaedias, dictionaries, thesauruses, prospectus and others. These materials are only used in the library, and no circulation is allowed, hence their importance.

5.2.7 Format preferred to read from

All the students in this study were asked to indicate their preferred format with different resources. A relatively high number, namely, 309 (84%) of students indicated that they preferred to use print books as compared to only 48 (13%) who indicated that they preferred electronic books. Moreover, about 228 (62%) of the students in this study indicated their preference for electronic journals and only 121 (33%) preferred print journals. In addition, most of the students preferred print newspapers and reference materials. The interviews with the librarians supported these findings. The librarians indicated that students were using more print

books than e-books, but that students were using electronic journals as compared to print journals. These findings agree with the findings of Sathe, Grady and Guise (2002) who uncovered that most students preferred electronic journals while most of the teaching staffs opted for print journals. Users prefer electronic journals because they are easy to access, while they also stated that print journals contain high-quality text and figures. The two Universities in the study subscribe to online databases, which contain both e-books and e-journal.; however, it seems students were using the database to access e-journals than e-books. Therefore, it could be surmised, students in Namibia are using print books and electronic journals more frequently.

5.2.8 Significance of print resources in the digital era

With the proliferation of information in digital content, there have been assumptions that electronic resources may replace print resources (Bonnell, 2008). On this view, Mawindo and Hoskin (2008) brought out the fact that most of the students in their study stated that electronic resources would not replace print resources but rather complement them. On the contrary, in the study by Tyagi and Kumar (2011) with the pharmacological students in India revealed that majority of the respondents strongly agreed that electronic resources would permanently replace print resources to a high extent; and only about 40% were of the opinion that, to a small extent, electronic resources might replace print resources. The reason is that although they were using electronic resources, print materials were still the primary sources for their information need. Most of the students in the current study felt that print resources were still relevant in this era. Likewise, the librarians in this study revealed that although electronic resources were on the increase, they were not replacing print resources anytime soon. These findings are confirming the findings of Wu (2005) who observed that e-resources are increasing, but not all materials are available online. The librarians in this study further echoed that Namibia is still in the infancy stage in terms of Internet access as some people in rural areas are still without to Internet access. Similarly, Hamutumwa (2014) observed that most of the distance students in

remote areas in Namibia found it challenging to access electronic resources because there were very poor Internet connectivity and lack of electricity. Therefore, due to the technological infrastructures, which are still developing in Namibia, one cannot confidently conclude that e-resources are replacing print resources.

5.3 Reason for possible preference of print resources in the digital era

The second objective of this study was to ascertain reasons for the preference of print resources in this era. This objective was addressed by the following themes;

5.3.1 Reasons for preferring print resources

Participants in this study indicated that they preferred print format for various reasons, which included “easy to read from in comparison to reading in electronic format” and “easy to locate”. Students found print resources to be easier to locate because the Universities offered orientation and in most instances. Students were only shown how to access print resources in the library and only later on, after classes have commenced that students were given orientations on how to access electronic resources. These findings correspond with the findings of Mawindo (2005) who found that the library offered orientation to first-year pre-medical as well as postgraduate students at the University Of Malawi College Of Medicine as they enter the tertiary institution. However, the orientation programme focused on retrieving print journal and not on retrieving electronic resources.

Only a few students in this study indicated that they preferred print resources because they have higher quality graphics, photos and tables. Participants also stated that reading in hard copies did not harm their eyes, which confirms the findings of Bodomo et al. (2003) who found that one of the reasons why students preferred print resources is that reading in print format is better for their eyes. A relatively low number of students indicated that they found print resources to be more reliable and easier to take notes.

5.3.2 Reasons for preferring electronic resources

With an increase in digital content, it is expected that library users will develop an interest in exploring digital information, Tepnir (2003) state that users will opt for electronic resources if they are convenient while still consulting print resources. Most of the students who preferred electronic resources in this study indicated that they were easy to find, another reason given was that they were convenient. Students further indicated that electronic resources were available anytime and they were portable. Some indicated that electronic resources were easy to find and easy to use. The findings of this study are corresponding with Wu's (2005) arguments that electronic resources are portable and this enables the users to save the documents in their portable devices such as USBs, computers and Ipads. Moreover, Valentine (as cited in Lombardo & Miree, 2003) asserts that students tend to avoid resources they are not familiar with or perceive them to be challenging to use and, therefore, continue to use the materials they have used successfully in the past.

The Decomposed Theory of Planned Behavior (DTPB) theory was used to provide an understanding of why students still prefer to use print resources in this era. The DTPB is believed to be similar to the Theory of Planned Behaviour (TPB) and the Technology Acceptance Model (TAM). However, it “incorporates constructs such as subjective norms and perceived behavior control which are alleged to be powerful determinants of behavior and it provides a fuller understanding of the contributing factor of intentions” (Ajzen, as cited in Kripanont, 2007, p. 50-51). For this study, the decomposition of the constructs of attitudinal beliefs known as relative advantage, and complexity and compatibility were used to predict behavioural intention to use print resources. These decomposed components are dealt with in the following section.

5.3.3 Relative advantage

Relative advantage in this study refers to how the students perceive print resources to be useful. Despite the availability of electronic resources, students in this study preferred to use print resources because they think that print resources are more beneficial to them in comparison to e-resources. Students believed that print resources were convenient to read from and they are more reliable as compared to electronic resources. A high number of the students who preferred electronic resources also indicated that they found electronic resources to be more convenient. The findings of this study have found relative advantage to influence behaviour to use a certain format. Studies by Shih and Fang, (2001), Tao and Fan (2017) and Tylor and Todd (2001) reached a similar conclusion as they also found relative advantage to be an important determinant of the use and adoption of an innovation.

5.3.4 Complexity

DTPB was used by Shih and Fang (2004) to study Internet banking in Taiwan and found that complexity is significant in the decision whether to adopt technology or not. In this study, most of the students who preferred print resources indicated that print resources were easy to read from and easy to locate in the library. Similarly, a high number of students who preferred electronic resources indicated that they were easy to find. Against this background, it was discovered that students felt that print resources were less complex to use and therefore, they developed a positive attitude, which led to their use. Tao and Fan (2017) indicate that complexity was found to be an important construct in the technology adoption and acceptance, which is in agreement with the findings of this study.

5.3.5 Compatibility

Compatibility is believed to be one of the primary indicators of positive adoption of an innovation (Shih & Fang, 2004). Print resources have been in existence for a long time, and it is expected that most of the people are still accustomed to reading in print format because they

are compatible with their lifestyles. Even though electronic resources are viewed to be compatible with the modern-day students as observed by Hamutumwa (2014), most of them still opted to use print resources. This study established that the Internet was still in its infancy stage in Namibia. Therefore, most of the students were still familiar with print resources. They found print resources to be more useful and easier to use. Therefore, it is expected that the more students are exposed to and use print resources, the more they perceive them to be compatible with their lifestyles. Rogers (1983) argues that innovations that have a tremendous relative advantage, compatibility and less complex have a high probability to be accepted and adopted by individuals which was also evident in this study.

5.4 Challenges encountered by students when using print format in the digital era

The third objective of this study was to find out the challenges encountered by students when using print format.

5.4.1 Challenges when using print resources

With an increase in technology, library users are presented with a choice between print and electronic format (Mawindo & Hoskin, 2008). This presents challenges as users battle with which information format to choose from. Most of the students in this study encountered the following challenges when using print resources:

- difficulty in locating materials 40(16%);
- locating outdated materials 62 (25%);
- missing materials on the shelves 51(20%);
- materials do not meet my needs 22 (9%);
- staff not available to assist 13 (5%); and
- few copies in the library 12 (3%).

The two main challenges encountered by students in this study were outdated materials as well as missing materials on the shelves. These findings agree with Mawindo and Hoskin (2008) who also found that the two major challenges encountered by students in Malawi entailed outdated materials and missing materials in the library. Moreover, students indicated that they also encountered challenges in locating materials. Response from the librarian at University Library BB indicates that students complained that they could not find the materials on the shelves even if it was showing that they were available on the Online Public Access Catalogue (OPAC).

Another challenge encountered by the students as observed by the librarians is missing pages as some of the students tore out the pages from books. The students also complained of too few libraries copies, which, when they were on loan, they were only available once they were returned. Therefore, the libraries reserved most of the recommended textbooks on short loan, which enabled students to use them only for a limited period, and only renewed them if no other students requested them. Another challenge established by the librarians is that students were not aware of what is available at the library, as they had not attended the orientation, which takes place at the beginning of each academic year. Thus, if a student missed the orientation, they only came to the library when they had assignments. This made it challenging to locate the materials since they did not know where the materials were located. Similarly, Choukhande and Kumar (2004) found that participants in their study lacked knowledge on the use of library service and did not know the information sources that were available in the library and where to access them. Moreover, Vajjaramatti et al. (2004) discovered that, even though most of the participants in their study used the OPAC, they still could not locate the materials in the library.

5.5 Suggestions on how libraries can improve the print collection

The students were asked to provide suggestions on how the libraries could improve their print collections given the challenges encountered. To overcome challenges of outdated materials, students suggested that libraries must continuously update their collection to make sure that they had the latest editions readily available. The participants stated that the libraries must consider purchasing more copies to cater for the students' demands. Even though there were short loan sections, not all materials were placed on the short loan, and not all students were willing to read in the Library. Some preferred to read in other places they found convenient. Students also indicated that staff must be willing to assist with the retrieval of information. The Libraries must do proper stock taking to determine which materials are missing and replace the missing materials. It is worth noting that if missing materials are not removed from the OPAC users will assume that the materials are available, but, subsequently, not be able to locate them.

5.6 Collection development policies regarding print resources in these libraries

The fourth objective of this study was to find out about collection development policies regarding print resources at UNAM and NUST libraries. The following themes address this objective.

5.6.1 Changes in the acquisition of print resources in the last five years

A question was asked to ascertain whether there had been a change in the acquisition of print resources in the last five years. Regarding this issue, the librarian from the University Library AA indicated that in the last five years the library had decreased the purchase of print resources and the attention was gradually shifted to acquiring e-resources. The reason for acquiring e-resources was that the library needed to keep up with the new technological advancement at the university. These findings are congruent with Mawindo and Hoskin (2008) who found that the acquisition department had decided to reduce the purchase of print resources especially those that were available in multiple formats in order to cut costs. Similarly, a study conducted

by Pather (2004) on the “Analysis of Science Print Journals at the University of Durban Library” discovered that most of the print subscriptions were reduced in order to acquire electronic journals, the reason being that the library was offered a discount on electronic journals. Responding to the same question whether there had been a change in the acquisition of print resources in the last five years, the Librarian at the University Library BB stated that there was a slight change, in the sense that the budget for the acquisition of print materials had slightly increased, especially for the print books. The University acquired more print books compared to e-books. Additionally, the University was purchasing more e-journals as compared to print journals. Given this response, it is evident that there was a difference on the issue of acquiring print and electronic resources, between the two Universities in this study. University library AA seemed to concentrate on acquiring more electronic resources and University Library BB had slightly increased the acquisition of print books in comparison to electronic resources. A study by Bailey, Scott and Best (2015) on the cost differential between print and electronic resources at Auburn University at Montgomery established that most of the publishers had increased the publishing of electronic resources and they advocated for libraries to subscribe to online databases. Given this, most of the libraries were reducing the print collections to accommodate newly acquired electronic resources.

5.6.2 Dealings with materials available in both print and electronic format

Knowlton (2014) acknowledges that acquisition librarians face challenges when selecting information that is available in both print and electronic formats. The librarians who were interviewed in this study depended on “special request” from users, such as teaching staff and students, general “purchase” depending on use, i.e. high demand, and the price and budget. The findings of Mawindo (2005) on a study conducted with the medical students at the University Of Malawi College Of Medicine revealed that the acquisition librarians preferred to purchase

electronic resources over print resources because electronic resources came as a package, which was cheaper to subscribe to instead of acquiring a single print resource. However, a study by Buck-Kachaluba et al. (2013) which was aimed at collecting data, which will aid the Faculty of Humanities at Florida State University in decision-making on whether to acquire print or electronic resources discovered that, even in the digital age, the Faculty of Humanities was acquiring more print resources than electronic resources. The reason given was that print resources were cheaper as compared to subscribing to the whole database, which was very expensive for the library.

5.6.3 Guidelines that guide the purchase of print and electronic resources

This study established that the two Universities did not have any guidelines for acquiring print and electronic resources. The findings are similar to those of a study by Mawindo and Hoskin (2008) in Malawi, which also revealed that there was no operational mechanism in place to guide the library on what to acquire. Again, this study relied on requests from users and specials offered by suppliers. Littman and Connaway (2004) advise that, for collection development librarians to decide on which format to acquire, there should be an understanding on the usage of a particular source. The decision should not be made solely on the pricing, but also on the formats being used.

5.6.4 Awareness of existing and new print resources available at your library

Academic libraries are experiencing a rapid change in the use and access to their resources and services, information products and services in different formats have prompted libraries to publicise the new and existing products and services to their clientele (Adegoke, 2015). The Librarians in the current study were asked about how they promoted the existing and new print materials. The Librarian at the University Library AA indicated that the subject librarians offered classes on how to access both print and electronic resources. Students were taught how to search the online catalogue and where to find the materials in the library. Additionally, this

study established that the library used the orientation programmes to promote library services to the first year. This study also found that at University Library BB a list of all the newly acquired materials was compiled every month. The list was uploaded on the website for the users to see what was available at the library. Regarding existing materials, the University offered orientation programmes specifically for first year students to promote the Library services. It was also found that there was a marketing committee that was responsible for promoting and creating awareness about the products and services at the university. The findings of this study concur with the findings of Hamutumwa (2014) who discovered that students were inducted on how to access available resources. However, they were not aware of the many resources available at the library. Similarly, a study done by Adegoke (2015) on the marketing of library and information services at Usamanu Dafodiyo University Library in Nigeria established that the University had implemented the library orientation programme, which was compulsory for all first-year students upon completion with the registration. The orientation programme was aimed to introduce fresh students to the library services and products, and the library orientation committee members provided the orientation. However, Adegoke (2015) suggested that the orientation programme must be on a continuous basis to make the programme more successful.

5.7 Summary

The chapter discussed the findings of this study. The findings reveal that even though the students preferred both print and electronic resources the majority indicated that they preferred print resources. Despite the proliferation of digital content in these Namibian University Libraries, most students still used print resources at the libraries. The results also indicate that students still preferred print resources. Reasons for the preference were given as books being more convenient to use, minimal straining of the eyes, easy to access, and easy to take notes from. The study also discovered that students encountered challenges such as too few copies

and missing materials on the shelves, outdated materials, difficulty in locating the materials, and materials not meeting their needs. None of the University libraries investigated had functional guidelines for acquiring print and electronic resources. However, the decisions were based mostly on the discount given by the publishers and the recommendations from the teaching staff and students. The next chapter provides the summary of the findings, the conclusion and recommendations.

CHAPTER SIX: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

The last chapter according to Jacobs (2014, p. 306) concludes with an “investigation into suggestions for how the problem could be resolved.” In this chapter, the researcher discusses “the most important points related to the analysis of research findings, and to merge final arguments” (p. 305). This chapter is divided into three main sections, namely, the summary, conclusions as well as the recommendations. The summary is arranged according to the key thematic issues as presented in Chapter 4. The conclusions section is presented under the objectives of the study. Enslin (2014) notes that the recommendations of the study provide insights gained through the study and the manner in which the findings can be applied and implemented.

6.2 Summary of findings

The findings are summarised within the following subheadings drawn from the research objectives:

- Extent to which print format was preferred
- Reasons for preferring print resources
- Challenges encountered when using print resources
- Collection development policies regarding print resources

6.2.1 Extent to which print format was preferred

It is evident that students preferred to use both print and electronic resources, but the majority preferred print format compared to electronic format. The statistics generated from the Library Information Management System, Sierra, also confirmed that print resources were still in high demand as more students were still borrowing print materials. The study also found that

students visited their university libraries to access print resources. The majority of the participants indicated that they used print resources at their Library most of the time.

In this era, students have a choice whether to consult print or electronic resources depending on what their libraries provide. If the information is available in electronic format, a user who prefers print resources may decide to print out hard copies to read in the preferred format. The students in this study indicated that they printed materials from the Internet all the time in order to read in print format. In comparison to students who opted for scanning printed copies to read in electronic resources subsequently, most of the students preferred print books as compared to other print resources. Newspapers were the second most heavily used print resources followed by short loan materials. The least frequently used materials were reference materials as well as journals.

Students indicated that books were important in their studies followed by short loan materials, newspaper and reference materials. Few participants stated that they found journals to be important in their studies. Students further indicated that they preferred print books as compared to electronic books, newspapers and reference materials as compared to the electronic version. Most of the participants also preferred electronic journals as compared to print journals. Most of the students stated that print materials were still significant in the digital era while few students indicated that print resources were not significance. Similarly, the librarians observed that electronic resources were on the increase and the electronic journals are gradually replacing printed journals. The study further found that Namibia is still at its infancy stage concerning Internet access; hence, electronic resources cannot replace print resources.

6.2.2 Reasons for preferring print resources

Students preferred different formats for various reasons, with print resources preferred most because they were more convenient and easier to read from. Students also indicated that print resources were easier to access than e-resources. Higher quality graphics, photos and tables was another reason why students preferred print resources. Students found print resources to be reliable and easy to take notes from. Lastly, students preferred print resources because they were less eye straining. Students who preferred electronic resources indicated that electronic resources were easy to find and convenient to use. The study further found that electronic resources are portable and they are available anytime. Electronic resources were preferable to them because they are easy to read from and easy to use.

6.2.3 Challenges when using print resources

While the digital era presents many opportunities for library users, there are also challenges since users are flooded with so much information in different formats. participants indicated that most of the print resources available at the library were outdated. They also indicated that they encountered challenges of few copies in the libraries and missing materials on the shelves. Some materials did not meet the students' needs, some encountered challenges of staff members not willing to assist as well as difficulty in locating the materials. Findings from the librarians indicated that some students were not aware of the materials and services at the library because they did not attend the library orientation.

6.2.4 Collection development policies regarding print resources

At University Library AA, there was a decrease in the purchase of print resources and the attention was gradually shifted to acquiring electronic resources. The reason for the acquisition of electronic resources was that the Library needed to keep up with the new technological advancement at the university. At University Library BB, there was little change in a sense that the budget for print books had increased slightly. The university was currently acquiring many

print books as compared to e-books; additionally, the university was purchasing more e-journals as compared to print journals.

None of these libraries had operational guidelines on dealing with materials that are available in both formats; the acquisition depended on special request and general purchase. The Libraries also opted to acquire print books since they were in high demand. Moreover, the pricing and subscription conditions played a significant role in determining which format to acquire. However, the Universities strived to acquire both formats when there was a special offer for both formats. These libraries have also strived to create awareness about the services by appointing subject librarians to teach students how to access both print and electronic resources. These Universities also offered orientation programme during the beginning of each academic year, thereby, creating awareness about the library services to new students. A monthly list of all the newly acquired materials was compiled and uploaded on the website for the users to see what was available at the Library.

6.3 Conclusions

In the conclusion section, the researchers should briefly summarise the main findings of the study and indicate how the objectives of the study were met (Thomas (2013). The conclusion section of this study is arranged according to the following research objectives:

- to determine the extent to which print format is preferred;
- to establish the reasons for the possible preference of print resources in the digital era;
- to establish challenges encountered by students when using print format in the digital era;
- to find out collection development policies regarding print resources in these libraries;
- to come up with recommendations on how institutions can improve their service concerning print resources in the digital era.

6.3.1 To determine the extent to which print format is preferred

The study established that print resources were frequently used as compared to electronic resources. One aspect that clearly stands out in this study is that first year students preferred print resources in comparison to the fourth year students. Students visited their university libraries more frequently to access print resources, and this was evident by the number of students borrowing print materials from these libraries. Students preferred print books and print newspapers as compared to the electronic version and they were printing materials from the Internet to read in print format in comparison to scanning hard copies to read in electronic format.

6.3.2 To establish the reasons for possible preference of print resources in the digital era

Students cited ease of use as one of the reasons why they preferred print resources. They also found print materials to be easy to locate and convenient to use. Higher quality graphics, photos and tables were other reasons for students' preference to print resources. Students found print resources to be more reliable and easier to take notes from. Finally, students preferred print resources because they were less straining to their eyes.

6.3.3 To establish challenges encountered by students when using print format in the digital era

Students encountered challenges of out-dated print materials in the library while others cited challenges of missing materials on the shelves. Other challenges mentioned were difficulty in locating the materials in the library as well as materials not meeting the needs of the students. Other problems identified were few copies in the library as well as staff not available to assist the students in the retrieval of information sources.

6.3.4 To find out collection development policies regarding print resources in these libraries

The findings of this study show that there were no functional guidelines, which guided the libraries on which format to acquire. Therefore, the decision was based on the low pricing and other subscription conditions as well as recommendations from the teaching staff as well as the subject librarians. Furthermore, the acquisition of print books had increased slightly in the last five years. However, it was also clear that the purchase of electronic journals had also increased. The study established that orientation programme, information literacy classes and a list of newly acquired materials were some of the methods used to market new and existing library materials to the students.

6.3.5 Suggestion by students on how libraries can improve the print collection

Students provided suggestions on how the libraries could improve their print collection to remedy the situation. To overcome challenges encountered by the students the libraries should:

- constantly update their collection to make sure they had recent materials;
- consider purchasing more copies to overcome challenges of few copies in the library;
- do properly stock taking to determine which materials are missing and replace the missing materials; and
- library staff members should be willing to assist the students in the retrieval of information.

6.4 Recommendations

The last objective of this study was to formulate recommendations on how institutions could improve their services concerning print resources in the digital era. According to the interpretation in chapter six, it was evident that there is a need to improve the library services concerning print collection. The following are the recommendations emanating from this study:

1. The libraries should formulate appropriate guidelines on the acquisition of print and electronic formats in the library. The guidelines should be able to guide the libraries on the appropriate format to acquire instead of relying mainly on the lower prices. This should be done with a purpose of ensuring that the acquisition of print resources and subscription of electronic resources satisfy the present and future library users.
2. The acquisition librarians should consider selective duplication of both formats for particular disciplines. It is of utmost importance to find out about certain print information sources that are in demand and consider acquiring electronic information sources as complimentary copies. Additionally, in selecting which format to acquire it is vital that the acquisition departments pay considerable attention to the content and the research process for each discipline, as some disciplines may benefit more from print while some may benefit more from electronic formats.
3. The libraries should improve and continue training students on how to access e-resources.

6.4.1 Recommendation for further research

Further research on the use of print resources should focus on the following:

1. There is a need for a study that compares the circulation of electronic and print books at academic institutions in order to get a fuller understanding of the format preference of the university students.
2. This study did not examine the issue of the Internet in institutions of Higher Education. There is a need to investigate the impact of the Internet on the use of print resources.
3. This study only focused on students at NUST and UNAM main campuses. Which means that in case of UNAM the school of medicine, Ogongo Campus, Jose Eduardo Dos Santos campus, Hifikepunye Pohamba campus, Oshakati campus, Southern Campus, Neudamn Campus, Khomasdal Campus and the regional centres in both

institutions are omitted in the study, therefore a study incorporating satellite campuses and external centres could be undertaken.

4. There is a need for a study to look at how the behaviour of the academic library appears to determine the information seeking behaviours of students.

6.5 Final Conclusion

This case study of UNAM and NUST on the use of print library materials in the era of digital resources in institutions of higher learning in Namibia acknowledges that electronic resources are on the increase. However, most of the students still used more print resources than electronic resources. The study has shown the importance of having an in-depth understanding of the format preference among students so that the acquisition librarians can make informed decisions when acquiring information in dual formats. The reasons and challenges indicated by the participants aided this researcher to formulate recommendations, which could be used to improve library service delivery as far as print format is concerned. Even though this study has added to existing research by other researchers, there are still issues that need to be investigated on the subject of print resources in the digital era in Namibia; these issues are highlighted in the recommendation for further research.

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APPENDIX A: RESEARCH PERMISSION LETTER (UNAM)

University of Namibia, Private Bag 13301, Windhoek, Namibia
340 Mandume Ndemufayo Avenue, Pioneers Park
☎ +264 61 206 3111; URL: <http://www.unam.edu.na>



RESEARCH PERMISSION LETTER

Student Name: Foibe Ndamana Shaambeni

Student number: 200720392

Programme: MA Library and Information Science

Approved research title: The Use of Print Library Materials in the Era of Digital Resources in Institutions of Higher Learning in Namibia: A Case Study of University of Namibia (UNAM) and Namibia University of Science and Technology (NUST)

TO WHOM IT MAY CONCERN

I hereby confirm that the above mentioned student is registered at the University of Namibia for the programme indicated. The proposed study met all the requirements as stipulated in the University guidelines and has been approved by the relevant committees.

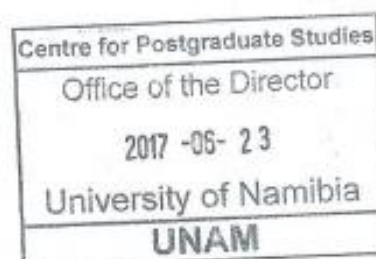
The proposal adheres to ethical principles as per attached Ethical Clearance Certificate. Permission is hereby granted to carry out the research as described in the approved proposal.

Best Regards

Dr M. Hedimbi
Director: Centre for Postgraduate Studies
Tel: +264 61 2063275
E-mail: directorpgs@unam.na

23/06/17

Date



APPENDIX B: RESEARCH PERMISSION LETTER (NUST)



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

13 Storch Street
Private Bag 13388
Windhoek
NAMIBIA

T: +264 61 207 2118
F: +264 61 207 9118
E: registrar@nust.na
W: www.nust.na

Office of the Registrar

15 August 2017

Ms Foibe Ndamona Shaambeni
Windhoek
NAMIBIA

Dear Ms Shaambeni

RE: CONSENT TO CONDUCT YOUR RESEARCH WITH THE NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY STAFF AND STUDENTS

The letter dated, 23 June 2017, from Dr Hedimbi, Director: Centre for Postgraduate Studies, UNAM, and your email received 15 August 2017 has reference.

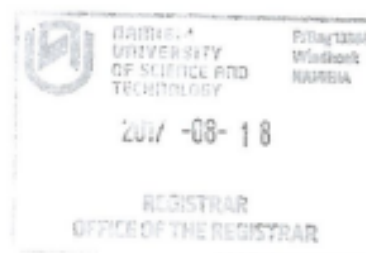
Approval is hereby granted for you to conduct the research on "*The Use of Print Library Materials in the Era of Digital Resources in Institutions of Higher Learning in Namibia: A Case Study of University of Namibia (UNAM) and Namibia University of Science and Technology (NUST)*" in the Namibia University of Science and Technology. Any information gathered during the research is to be used for the purpose of the study only and must be treated as confidential. The results of the study should be shared with the University. Individual information of staff and students will not be made available, nor will biographical information of students be made available in such a way that individual students can be identified.

You are advised to contact the Director: Library and Information Services, Ms Judy Grobler, to compile a list of possible respondents to your data collection instrument.

I wish you all the best with your research.

Yours sincerely,


Corneels H. Jafta
REGISTRAR



CC: Director: Library and Information Services
Deputy Vice-Chancellor: Academic Affairs
Assistant Registrar: Academic Administration

APPENDIX C: ETHICAL CLEARANCE



ETHICAL CLEARANCE CERTIFICATE

Ethical Clearance Reference Number: FHSS/245/2017 **Date:** 27 September, 2017

This Ethical Clearance Certificate is issued by the University of Namibia Research Ethics Committee (UREC) in accordance with the University of Namibia's Research Ethics Policy and Guidelines. Ethical approval is given in respect of undertakings contained in the Research Project outlined below. This Certificate is issued on the recommendations of the ethical evaluation done by the Faculty/Centre/Campus Research & Publications Committee sitting with the Postgraduate Studies Committee.

Title of Project: THE USE OF PRINT LIBRARY MATERIALS IN THE ERA OF DIGITAL RESOURCES IN INSTITUTIONS OF HIGHER LEARNING IN NAMIBIA: A CASE STUDY OF UNIVERSITY OF NAMIBIA (UNAM) AND NAMIBIA UNIVERSITY OF SCIENCE AND TECHNOLOGY (NUST)

Researcher: Foibe Ndamona Shaambeni

Student Number: 200720392

Faculty: Faculty of Humanities and Social Sciences

Supervisors: Prof. C. Nengomasha (Main) Mr. W. Yule (Co)

Take note of the following:

- (a) Any significant changes in the conditions or undertakings outlined in the approved Proposal must be communicated to the UREC. An application to make amendments may be necessary.
- (b) Any breaches of ethical undertakings or practices that have an impact on ethical conduct of the research must be reported to the UREC.
- (c) The Principal Researcher must report issues of ethical compliance to the UREC (through the Chairperson of the Faculty/Centre/Campus Research & Publications Committee) at the end of the Project or as may be requested by UREC.
- (d) The UREC retains the right to:
 - (i) Withdraw or amend this Ethical Clearance if any unethical practices (as outlined in the Research Ethics Policy) have been detected or suspected,
 - (ii) Request for an ethical compliance report at any point during the course of the research;

UREC wishes you the best in your research.

Prof. P. Odonkor: UREC Chairperson

A handwritten signature in black ink, appearing to be 'P. Odonkor', written over a horizontal line.

Ms. P. Claassen: UREC Secretary

A handwritten signature in black ink, appearing to be 'P. Claassen', written over a horizontal line.

APPENDIX D: INFORMED CONSENT FORM

Title of Study: The use of print library materials in the era of digital resources in institutions of higher learning in Namibia: a case study of University of Namibia (UNAM) and Namibia University of Science and Technology (NUST).

Researcher: Foibe N. Shaambeni

Namibia University of Science and Technology

Periodical Section

Telephone: 0612072821

Cell: 081 3323377

E-mail: fshaambeni@gmail.com

This research aims to investigate the use of print library materials in the era of digital resources in institutions of higher learning in Namibia.

All response will be treated with confidentiality and privacy. Participation is voluntary; however, you are encouraged to participate.

This study will benefit the institutions of higher learning and the students, as it will provide information that may enable academic institutions to make informed decisions when acquiring information sources in the digital era. This report will be made available to you on request.

For any questions or further clarifications with any aspect regarding this research, please feel free to contact me or my research supervisors, in the Department of Information & Communication Studies, University of Namibia: Professor Cathrine T. Nengomasha e-mail: cnengomasha@UNAM.na Tel: [061-2063641](tel:061-2063641) or Mr. Wilson Yule e-mail: wyule@UNAM.na Tel: [061-2063844](tel:061-2063844)

If you agree to participate in this study, may you please indicate your consent by signing this form?

_____	_____	_____
Name	Signature	Date

APPENDIX E: QUESTIONNAIRE FOR THE STUDENTS

My name is Foibe Ndamona Shaambeni and I am a student in the Department of Information & Communication Studies (DICS), studying towards a Masters of Arts in Library and Information Science at UNAM. I am conducting a study titled “The use of print library materials in the era of digital resources in institutions of higher learning in Namibia: a case study of UNAM and NUST”. This research project is undertaken as part of the requirement for a Masters at UNAM.

I have chosen you to voluntarily participate in this study, hence, you are requested to fill in this questionnaire. You are not requested to provide your personal details for confidentiality reasons. The information you are giving will be used solely for academic purpose. You are required to sign a consent form, to show that you understand the purpose of this study and you have voluntarily agreed to take part.

Section A

Demographic Information

Please tick or cross the boxes that best represent your response

1. Gender

Male	
Female	

2. Age Category

Less than 20 years	
20-25 years	
26-30 years	
Over 30 years	

3. Year of study

First Year	
Second Year	
Third Year	
Fourth Year	

4. Where are you studying?

UNAM	
NUST	

5. Please indicate your study programme

6. Mode of study

Full time	
Part-time	

Section B

The extent to which print format is preferred

1. How often do you use the Library?

All the time	
Most of the time	
Sometimes	
Rarely	
Never	

2. If an information source is provided in both electronic and print format which format would you prefer?

Print format	
Electronic format	
Both print and electronic	

If you answer “**print resources or both print and electronic**”, please proceed to question 3 and answer all the questions.

If you answer “**electronic resources**” only, please state why below and proceed to question 5, 8, and 14.

3. How often do you use print resources from your University Library?

All the time	
Most of the time	
Sometimes	
Rarely	
Never	

4. How often do you print materials from the Internet?

All the time	
Most of the time	
Sometimes	
Rarely	
Never	

5. How often do you scan print copies so that you can read in electronic format?

All the time	
Most of the time	
Sometimes	
Rarely	
Never	

6. How often do you use the following print resources for your studies?

	Daily	Weekly	Monthly	Never
Books				
Journals				
Reference e.g. Dictionaries, atlas and encyclopaedia				
Short loan materials				
Newspapers				
Others, please indicate				

7. How important are the following print resources in you studies?

	Very important	Important	Somehow important	Not important
Books				
Journals				
Reference e.g. Dictionaries, atlas and encyclopaedia				
Short loan materials				
Newspapers				
Others, please indicate				

8. For the following information sources, which format do you like to read from?

	Print	Electronic
Books		
Journals		
Newspaper		
Reference e.g. dictionaries, atlas and encyclopaedia		
Others, please indicate		

Reasons for possible preference of print resources in the digital era

9. Do you think print library materials are still significant in the digital era?

Yes	
No	
Not sure	

10. Why do you prefer to use print resources?

They are convenient	
They are easy to read from	
Easy to locate	
They have higher quality graphics, photos and tables	

Others: please specify_____

Challenges encountered by students when using print format in the digital era

11. Do you encounter challenges when accessing print resources?

Yes	
No	

If you answer is “YES”, proceed to question 12

If your answer is “NO”, proceed to question 13

12. What challenges do you face when using print library material?

Difficulty in locating materials	
Outdated materials	
Missing materials on the shelves	
Materials do not meet my needs	
Staff not available to assist	
Few copies in the Library	

Others, please specify _____

Recommendations

13. What are your suggestion on how your Library can improve its print collection?

The Library must constantly update the collection	
Purchase more copies	
Staff must be willing to assist in the retrieval of materials	
Replace lost copies	
Do stock taking to find out which materials are missing	

Others, please specify _____

14. In acquiring new materials for my information need, I prefer the Library to collect the following format.

Print	
Electronic	
Both print and electronic	

Thanks for your participation

APPENDIX F: INTERVIEW GUIDE FOR THE LIBRARIANS

My name is Foibe Shaambeni and I am a student in the Department of Information & Communication Studies (DICS) studying towards a Masters in Library and Information Science at UNAM. I am conducting a study titled “The use of print library materials in the era of digital resources in institutions of higher learning in Namibia: A case study of UNAM and NUST”. This research project is undertaken as part of the requirement for a Master of Arts in Library and Information Science. You are selected to be a respondent for this study. The researcher will capture your response with a voice recorder. You are required to sign a consent form, to show that you understand the purpose of this study and you have agreed to take part.

Use of print resources

1. In your view, do you think print resources are still heavily used in your library?
2. What is your view on print resources being replaced by electronic resources?
3. In your view what are the challenges facing students when using print resources?

Collection development policies regarding print resources

4. Has there been a change in the acquisition of print resources in the last five years?
5. How do you deal with materials that are available in both print and electronic format?
6. What are the guidelines that guide you in the purchase of print and electronic resources?
7. How do you make the students aware of existing and new print resources available in the library?
8. Are there any issues regarding print resources that you would like to share?

Thank you for participating in this study.