

**AN ASSESSMENT OF INFORMATION NEEDS AND INFORMATION  
SEEKING BEHAVIOR OF STUDENTS AT THE UNIVERSITY OF  
DODOMA (UDOM)**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER IN LIBRARY AND  
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OF THE OPEN UNIVERSITY OF TANZANIA**

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**CERTIFICATION**

The undersigned certifies that, he has read and hereby recommends for acceptance by the Open University of Tanzania the dissertation entitled: *"Assessment of Information needs and Information-Seeking Behavior of Students at the University of Dodoma (UDOM)*; in partial fulfillment of requirement for the award of Master's Degree in Library and Information Management (MLIM) of the Open University of Tanzania.

.....

Dr. Athumani S. Samzugi

(Supervisor)

.....

Date

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.....

Signature

.....

Date

## DEDICATION

I dedicate this thesis to Almighty God, my creator, my inspiration, *my solid pillar of knowledge, wisdom, and understanding*. He was my source of strength the whole time I worked on this Dissertation until it was over and, on his wings, I grew sour.

I also dedicate this piece to my husband, Anthony Dadu, for his unconditional love and support, as well as his encouragement, which has motivated me to devote myself to achieving success in my life, their learning goals.

Finally, this memoir is dedicated to my three dear children: my daughter Catherine, my sons Clavery and Christopher, for their continued emotional support during my studies. You are the unsung heroes of my struggle for academic liberation. May you always live to follow the example of your beloved mother. Thank you, my love, because things can never be quantified, God bless you.

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## ABSTRACT

The main objective of this study was to assess information needs and information seeking behavior of students at the University of Dodoma. Specifically, the study sought to: identify types of information resources needed by university students; determine the factors that influence information needs and information seeking behavior of university students and identify the challenges faced by university students when seeking information. The study employed a cross-sectional research design and mixed method approach involving 198 respondents, who were randomly and purposively selected from a study population of 392 respondents. Empirical data for this study were collected using a standardized questionnaire with both close and open-ended questions, and interviews. Key findings revealed that 94(52.8%) of the students used internet sources to accomplish their assignments. Findings further revealed that, although there are various information materials such as printed resources, brochures, television, newspapers, and others, yet students preferred electronic resources more than other sources available. The study further revealed that over 60% of the students indicated available information sources satisfied their information needs. Findings also revealed lack of information searching skills, time, and slow internet speed were among the challenges faced by students when seeking information. The study concludes that through library information literacy training programs for lifelong learning, university students need to be well informed of different information sources pertaining to their subject areas of specialization, in order to enhance their academic/research performance, as well as later in their professional and academic engagement with the community and society at large. The study recommends: acquisition of current library resources and subscription to relevant databases; inclusion of Information Literacy (IL) training to students in the university curricula; and increase library bandwidth in order to improve and enhance internet connectivity and use by students.

**Keywords:** *Information needs, information seeking behavior, University of Dodoma, Tanzania.*

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**LIST OF ABBREVIATIONS AND ACRONYMS**

COTUL	Consortium of Tanzania Universities Librarian
ESRF	Economic and Social Research Foundation
E-RESOURCES	Electronic Resources
GPA	Grade Point Average
HIV	Human Immunodeficiency Virus
ICT	Information Communication Technology
IL	Information Literacy
IT	Information Technology
IHL	Institution of Higher Learning
IHL	Institution of Higher Learning
KII	Key Informants' Interviews
OER	Open Educational Resources
TCU	Tanzania Commission for Universities
UNDP	United Nations Development Program
UDOM	University of Dodoma

## **CHAPTER ONE**

### **INTRODUCTION AND BACKGROUND TO THE STUDY**

#### **1.1 Introduction**

The University of Dodoma, being a hub of academic excellence, is home to a diverse student body pursuing various disciplines. As students navigate their academic journeys, they encounter an array of challenges in accessing, evaluating, and utilizing information pertinent to their studies. In an era branded by a rapid influx of information and technological advancements, understanding the information needs and seeking behavior of university students is imperative for academic institutions to adapt and cater effectively to their learning requirements (Adeleke, 2015). This research aims to delve into the intricacies of information requirements and the diverse behaviors exhibited by students at the University of Dodoma in their quest for knowledge.

#### **1.2 Background to the Study**

The University of Dodoma (UDOM) was established in 2007, and represents a cornerstone of Tanzania's commitment to providing quality higher education. Situated in the capital city Dodoma, UDOM has evolved over the years, adapting to changes in the academic landscape and technological advancements. As the institution has grown, so too has the need to understand and address the evolving information needs and seeking behaviors of its diverse student body (ESRF, & UNDP, 2019).



In the early years of its establishment, the University of Dodoma primarily focused on foundational aspects of infrastructure and curriculum development. However, with the increasing integration of technology into academic practices and the proliferation of digital information, the university recognized the importance of evaluating how students' access, evaluate, and utilize information for their studies (ibid).

Information is considered an important resource in human life. For example, the development of science and technology has allowed people to create and share information more easily and quickly than ever before. Research by Stores (2017) has shown that information is an indispensable resource for human life and therefore is considered as a basic need. Soong, et al. (2020) define information as processed ideas, data, facts, and intellectual works that have potentially useful value for making decisions, answering questions and problem solving.

The rapid evolution of information and communication technologies has significantly transformed the academic environment. The proliferation of online databases, e-books, and electronic journals has provided students with unprecedented access to information. This transformation, coupled with the growing diversity of academic disciplines at UDOM, necessitates a comprehensive examination of the information needs and seeking behaviors of its students (Adeleke, 2015).

The shift from traditional to digital resources, along with changes in pedagogical approaches, has implications for how students navigate the vast sea of information

available to them. Understanding the historical context of these changes is vital for conducting a thorough assessment of the current information landscape at UDOM (Mwaimu. 2013).

### **1.3 Statement of the Problem**

Undergraduate students in any higher institution of learning are expected to maximally utilize the academic library as one of their major sources of information. However, it has been observed that they do not use most of the library information resources. This may be unconnected with technical problems undergraduate experienced by the multitude of information resources as available in the library. As the University of Dodoma (UDOM) continues to evolve in response to changing academic landscapes and technological advancements, there exists a critical need to assess the information needs and information-seeking behaviour of its diverse student population. The rapid integration of digital technologies and the proliferation of online resources have significantly transformed the information environment, posing challenges and opportunities for students in accessing and utilizing pertinent academic information. The use of library resources varies from university to university. For example, in the COTUL Consortia usage report for 2021-2023 shows that, for the University of Dar es Salaam statistical data the usage is 5856 (67%), the usage of the University of Mzumbe is 2985 (9%), while for Ardhi University used is 1823 (-2%). At Dodoma University, data shows that in April 2023, only 5,326 students (41%) out of 12,990 (100%) used electronic resources, which is less than 50% of the statistical data recorded again. The report presented by the Consortium of University Libraries of Tanzania (COTUL) (2020), has shown that there is

misapplication of library resources in the IHL in Tanzania, even though the universities in the country have invested a lot of capital and resources to obtain these resources. Despite the wealth of research on information need and information-seeking behaviour, there is a noticeable gap in the literature regarding the specific context of the University of Dodoma. That's why this study seeks to assess the information needs and information-seeking behavior of students at the University of Dodoma (UDOM).

#### **1.4 Objective of the Study**

The overall objective of this study was to assess the information needs and information-seeking behavior of students at the University of Dodoma (UDOM).

##### **1.4.1 Specific Objectives**

On the basis of the general objective, the specific objectives of this study were:

- (i) To identify types of information resources needed by the students.
- (ii) To determine the factors influencing information needs and information seeking behaviors among students at UDOM.
- (iii) To identify the challenges facing students on the information needs and seeking behavior.

#### **1.5 Research Questions**

- (i) What are the types of information resources needed by the students?
- (ii) What are the factors influencing information needs and information seeking behaviors among students at UDOM?

- (iii) What are the challenges facing students on the information needs and information seeking behavior of the students?

### **1.6 Significance of the Study**

This study makes sense in several aspects. First, this research holds significance not only for the University of Dodoma but also for academic institutions globally. By uncovering the patterns of information needs and seeking behavior, institutions can tailor their services to meet the specific requirements of their student population. Second, the results of this study will inform the management and librarians of UDOM about the need to provide modern and relevant information resources and services to meet current information needs. Third, the results of this study will contribute to understanding and grasping the factors affecting information-seeking behavior of UDOM students. Ultimately, the results of this study will contribute to the body of existing literature on the subject, by filling in gaps in the literature.

### **1.7 Scope of the Study**

The study focused on in-depth research to find out the information needs and information-seeking behaviors of UDOM University students.

### **1.8 Limitations of the Study**

For time and financial reasons, the research was limited to Dodoma region. In this study, the time limit was due to the limited time of fieldwork (6 months). In addition, budget constraints were another limitation. For example, I had to pay for my studies from my own sources because it was difficult to get a scholarship for pursuing the

study and supporting the family at the same time. This limitation was mitigated by the help of my family and a loan from financial institutions. Another limitation of the study is the paucity of literature on this topic in the Tanzanian context. This means that most of the literature review was based on sources outside of Tanzania.

In addition, the researcher had to contend with time constraints when collecting data from both students who were busy with their lesson plans, and librarians and faculty members who were busy with teaching and other professional work schedules. However, the researcher managed to overcome the limitation by finding free time from students, lecturers and librarians to collect data according to their schedule.

## **1.9 Definitions of Key Terms**

Words have different meaning and significance. Therefore, this section defines key concepts or terms related to this study in their context. The purpose of defining key terms is to improve the understanding of the central questions of this study. The following operational definitions are used in this study.

### **1.9.1 Information Knowledge**

Information knowledge refers to information about a specific topic, problem, event, or process obtained from various sources such as television program, education/lecture, and research (Yuexiao, 1988). In this study, information refers to information on different topics that can be provided to students through different channels and sources. For the context of this study, a definition will suffice.

### **1.9.2 Information Need**

Information need is the recognition that a person's personal data is not sufficient to achieve a specific goal (Reddy et al., 2018). In the same way, Chinnasamy (2017) adds that the need for information is not simply the lack of information, but it combines the need with the use of the right information to solve the information problem. An information need is therefore a situation that occurs when students face a problem or knowledge that can be solved with the help of the right sources of information. This definition is accepted because it is valid in the context of this study. Information search According to Case (2006), information seeking is a conscious effort to obtain information in response to a need or lack of information.

### **1.9.3 Information Seeking behavior**

Information-seeking behavior is the set of people's behaviors in relation to information sources and channels, including both active and passive information seeking and use (Stores, 2017).

### **1.9.4 University**

University is an institution of higher education that provides opportunities for teaching and research and is specifically authorized to grant academic degrees: one consisting of an undergraduate department that awards undergraduate degrees and a graduate department that consists of gymnasiums and professional schools, each of which may award a master's degree. Degrees and Ph.D. ([https://www.merriam-webster.com/ dictionary/university#](https://www.merriam-webster.com/dictionary/university#)) (<https://www.thefreedictionary.com/university>)

This definition is accepted because it is valid in the context of this study.

### **1.10 Organization of the Dissertation**

This study was divided into five chapters, where chapter one deals with the background of the study, problem statement, research objectives and research questions, significance of the study, limitations of the study and organization of the dissertation. The second chapter deals with the literature review of the research, the lack of research and the theoretical and conceptual framework of the research. The third chapter outlines the research methodology and sub-topics used in the study, such as research design, research approach, research location, data collection methods, sample size, reliability and validity. Others are data analysis and ethical considerations. Chapter four deals with data presentation and analysis; while chapter five summarizes the research findings, conclusions, recommendations and future research areas, as well as references and appendices.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter examines various sources related to students' information needs and information-seeking behavior. The literature review is structured around broad themes and includes both current and retrospective sources. Reviewing the relevant literature is important and serves several purposes, including finding out what has been done, what still needs to be done, the methods used, and reconciling areas where there is disagreement. A literature review of the subject also increases understanding of the depth of the research problem, research questions and concepts, and defines the conceptual and theoretical framework to be used.

#### **2.2 Types of Information Resources Needed by the Students**

According to Malekani (2006), students need information to meet their social and psychological needs in order to promote and strengthen their academic pursuits during their university studies. In addition, Malekani (2006) pointed out that university students need academic knowledge to write courses, seminar papers, prepare for class discussions and prepare for exams and tests, as well as knowledge to write final year research papers.

When searching for information, the user can interact with various sources of information, such as electronic and printed sources such as newspapers and books, or obtain information through passive attention and passive search, such as watching television, listening to the radio and interacting with friends (Wilson, 1996). Students



receive information from various sources such as electronic and printed sources such as newspapers, books and brochures, mass media such as radio and television, and oral sources or through lectures and seminars.

Traditional print resources, including textbooks, reference books, and academic journals, continue to be fundamental to students' learning experiences. Print materials provide in-depth coverage of subjects and serve as foundational resources for academic research (Matarazzo & McMillan, 2000). Digital databases, such as JSTOR, ProQuest, and EBSCOhost, offer students access to a vast array of scholarly articles, research papers, and other academic publications. These databases enhance the depth and breadth of available information and facilitate efficient and targeted literature reviews (Nicholas et al., 2009).

Electronic books have become increasingly popular due to their accessibility and convenience. Students can access e-books on various platforms, providing flexibility in reading and often allowing for interactive features. This type of resource is particularly valuable for students who prefer digital formats (Liu, 2010). Online academic journals, available through university libraries or external repositories, provide students with up-to-date research and scholarly articles. Access to a diverse range of journals supports students in staying abreast of the latest developments in their respective fields (Rowlands et al., 2008).

Multimedia resources, including videos, podcasts, and interactive simulations, offer a dynamic and engaging way for students to grasp complex concepts, these resources

cater to diverse learning styles and can enhance understanding and retention of information (Mayer, 2009). Websites and OER platforms, such as Khan Academy and MIT Open Courseware, provide students with free and open access to educational materials. These resources can supplement course content, offering additional explanations, exercises, and learning opportunities (Allen & Seaman, 2016).

Beyond specific resources, library services, including interlibrary loans, research assistance, and access to special collections, play a crucial role in supporting students' information needs. Librarians contribute expertise in navigating resources and developing effective research strategies (Julien & Barker, 2009). Social media platforms and online communities enable students to connect with peers, share information, and participate in academic discussions. These platforms serve as additional channels for accessing and exchanging relevant information (Greenhow et al., 2009).

For example, Malekani (2006) reported that the available and usable sources in the university environment are media sources such as radio, television, newspapers and the internet. These sources reach students and can increase awareness of aspects of learning. The literature review also identified interpersonal communication as a source of information that students receive through training, lecturers, seminars and group discussions, between students and faculty members, or through the exchange of ideas in classrooms.

Furthermore, in one study, Malekani (2006) found that interpersonal communication (word of mouth) was the most popular source of information (cited by more than 90% of respondents) compared to other sources of mass communication. Based on these results, it is evident that students can obtain and use different sources when searching for information to fulfill their information needs.

### **2.3 Factors Affecting Information Seeking Behaviour**

Studies have shown that there is a relationship between task complexity and information seeking behavior. In the learning environment, information needs are very important for libraries to effectively support learning activities of users. Many studies have revealed that several factors such as cost, past success, accuracy, reliability, completeness, usefulness, timeliness, response time, accessibility, technical quality and format, which contribute to students' choice and use of different information sources (Shop, 2017).

However, students in higher education institutions, especially in developing countries, face many obstacles in their efforts to meet their information needs, which affects their behavior. Find their information. Malekani (2006) described these factors as personal, affective, educational, demographic, social/interpersonal, environmental, economic and origin characteristics. The main obstacles that hinder university students from seeking information in developing countries are related to time constraints and inability to access information sources. Other problems are research skills, workload, cost, too much information and liability issues (Adeniji, 2017; Masters, 2008). Likewise, lack of time and the obvious preference is to ask an

expert colleague or consult a printed source. irregular supply, lack of time and high cost of access were also identified as major barriers for students (Younger, 2010).

A study by Davis (2007) suggested that the main barriers to information-seeking behavior include problems with "online resources" or "information technology (IT)", followed by lack of time.

#### **2.4 Challenges on Information Needs and Seeking Behaviour**

The literature review reveals that the challenges university students face related to information needs and information seeking behavior revolve around students' language problems and lack of information literacy skills (Shabani, 2013). Foley (2010), pointed out that in the university environment, English is the medium of communication and the second language of the majority of students. Research also shows that college students face challenges in speaking and understanding literature. When students face challenges in understanding media sources, it can be difficult for them to need information or know how to determine when information is needed.

Understanding information needs and seeking behavior is crucial in the evolving landscape of information access and retrieval. As individuals navigate an increasingly digital world, challenges arise in fulfilling their information needs effectively. One primary challenge stems from the sheer volume and diversity of available information. The digital age has democratized information creation and dissemination, leading to an information overload. This overload often results in difficulties for individuals in identifying, evaluating, and selecting relevant and

credible information sources. The constant influx of information can overwhelm users, making it challenging to find what they truly need (Rugarabamu et al., 2020).

Another significant challenge lies in the evolving nature of information itself. The rapid pace of technological advancements and the continuous growth of knowledge result in information becoming outdated quickly. This challenge affects not only the accuracy of the information found but also the need for users to stay updated on the latest developments. Consequently, individuals may struggle to keep pace with the constant changes, impacting the effectiveness of their information-seeking behavior (Chowdhury and Chowdhury, 2011; Hager et al., 2020).

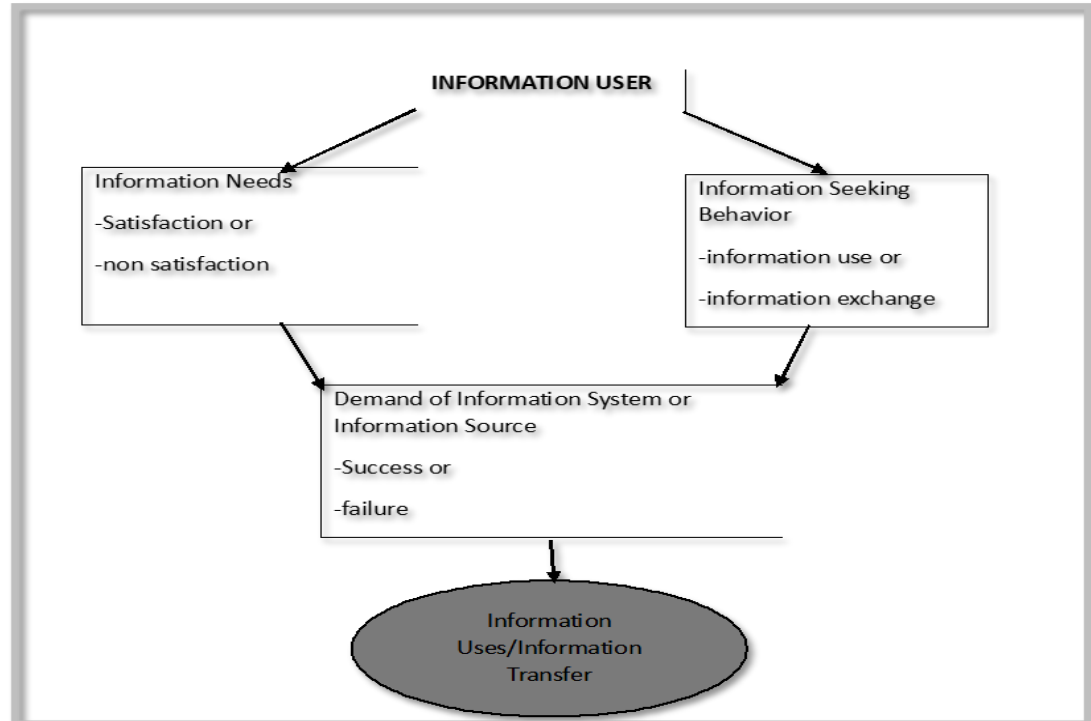
The digital divide poses a challenge in the context of information needs and seeking behavior. Despite the increased availability of information online, disparities in access to technology and digital literacy persist. Socioeconomic factors, educational background, and geographical location contribute to this divide, limiting the ability of certain populations to access and benefit from the wealth of information available. Bridging this gap is crucial to ensuring equitable access to information and enhancing information-seeking behavior across diverse demographics (Richey, et al., 2021).

Furthermore, the role of algorithms and personalized content delivery presents a challenge in shaping information-seeking behavior. Online platforms use algorithms to curate content based on user preferences, potentially creating filter bubbles that limit exposure to diverse perspectives. Users may find themselves trapped in

information silos, reinforcing their existing beliefs and restricting the discovery of alternative viewpoints. This challenge raises questions about the impact of algorithmic curation on the objectivity and breadth of information individuals encounter (Hanafiah and Wan, 2020).

## 2.5 Theoretical Framework

There are numbers of information need and information search models that have been developed by different researchers, in order to improve the access and use of information. One of the most important models cited in the literature is the information-seeking behavior model developed by Wilson in 1981.

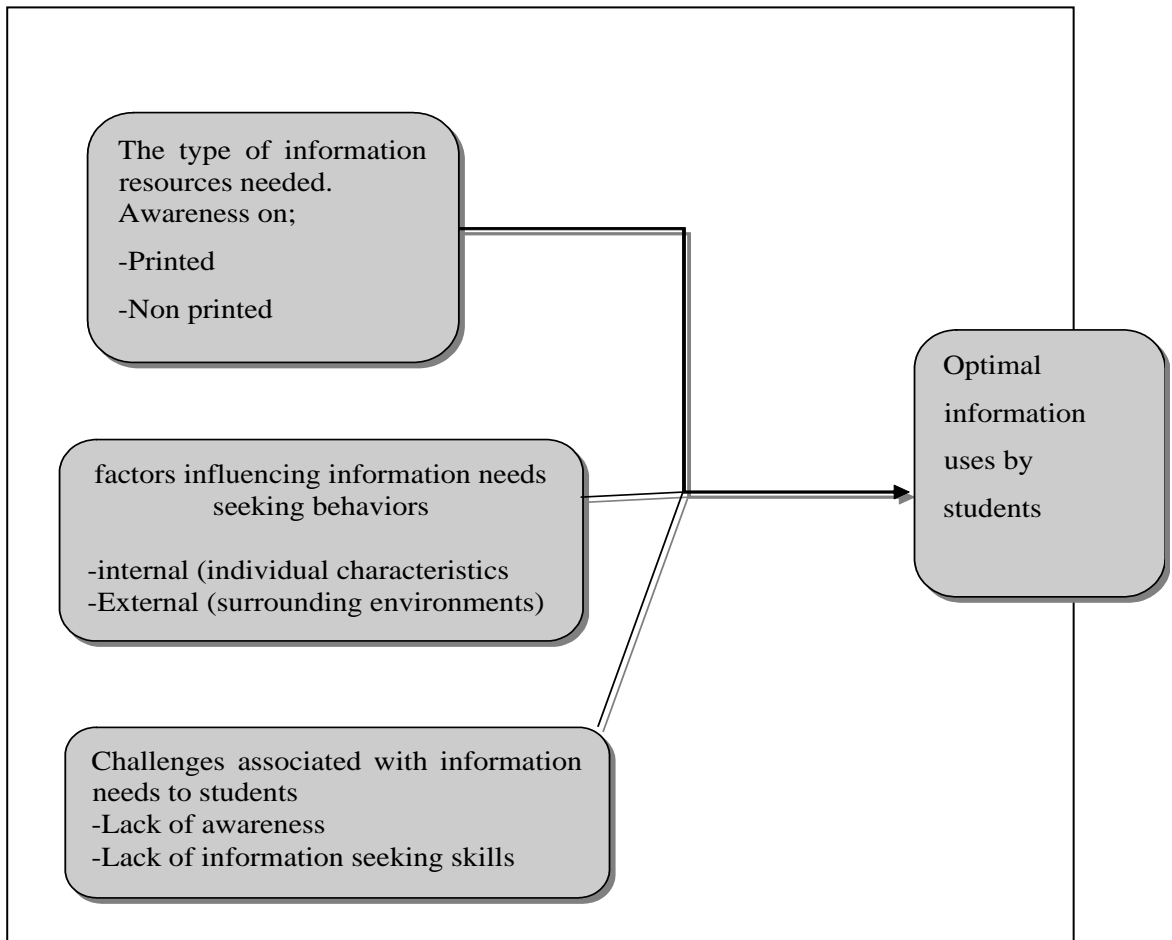


**Figure 2.1: The information-seeking model developed by Wilson in 1981, and applied by Lwoga et al., (2017).**

Wilson's information-seeking model suggests that users engage in information-seeking behavior because they want to satisfy their cognitive information needs. The model further explains that people seek information from all kinds of sources to fill information gaps. This process can succeed or fail. If successful, the person uses the information, but when partially satisfied or fails to fill the perceived void, the person repeats the entire process over and over. During the information seeking, a person may face a number of intervening variables that can either aid his quest or hinder his progress. These variables can be personal, emotional, educational, demographic, economic.

## **2.6 The Conceptual Framework**

The conceptual framework refers to a visual or written presentation explaining the key research questions. It deals with key factors, concepts, variables and hypothetical relationships between them (Jabareen, 2009). In this conceptual framework, when discovering information needs and information-seeking behavior, individuals will tend to seek information from many different sources. In the process of seeking for information sources, information seekers may encounter various obstacles that can aid in the search process or block it. Ultimately, information seekers can either succeed or fail. When successful, the searcher can use that information to fill in the required information, and when unsuccessful, the searcher can start the process again. In this study, the researcher adapted Wilson's model as presented in figure 2.2



**Figure 2.2: Information seeking model**

**Source: Adapted from Wilson 1981 Mode, and modified by a researcher, 2023.**

### **2.6.1 The Types of information resources needed by the students**

Wilson's model emphasizes the initial stage of recognizing an information need. According to the model, individuals experience a sense of discomfort or inadequacy, prompting them to seek information to resolve this discomfort. In the context of first objective, identifying types of information resources aligns with the initial stage of recognizing and specifying information needs. Students at UDOM may be experiencing information needs related to their academic pursuits, and the study aims to identify the specific resources they require to address these needs.



### **2.6.2 The factors influencing information needs and information-seeking behaviors among students at UDOM**

Wilson's model recognizes that information needs are influenced by various factors, including individual characteristics, cognitive processes, and external factors. The second objective of study directly aligns with this aspect of the model. By exploring the factors influencing information needs and seeking behaviors among UDOM students, the study are delving into the complexities that shape how students articulate and address their information needs.

### **2.6.3 The challenges with the information needs and seeking behavior of the students**

Wilson's model also acknowledges that information-seeking is not always a straightforward process and individuals may face barriers or challenges. The third objective of study aligns with the later stages of Wilson's model, which involve the actual search for information and the evaluation of information obtained. By identifying challenges and proposing solutions, your study aims to address the obstacles that students may encounter during their information-seeking journey.

## **2.7 Research Gap**

While there is extensive research on information needs and seeking behavior in various academic settings (Julien & Duggan, 2000; Case, 2012), on their study on longitudinal analysis of the information needs and uses literature emphasizes; there might be a limited focus on the specific context of the University of Dodoma. The

existing literature may not sufficiently address the unique information landscape, resources, and challenges at UDOM. This study aims to bridge this gap by providing an in-depth assessment of the information needs and seeking behavior within the distinct context of UDOM.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

Kothari, (2004) defines research methodology as a systematic way to solve a research problem. Research method can also be referred to as the steps and related mechanisms or tools that are applied to carry out certain research with the aim of generating new knowledge or understanding of a phenomenon, certain image. This chapter discusses research methodology, study design, study area, study population, sample size, sampling techniques, data collection methods, tools, data processing and analysis, ethical issues and quality control.

#### **3.2 Study Design**

Research design is one of the important parts of the research process. It defines and prescribes the methods and logical sequence of how research should be conducted from the initial stage of data collection to the final stage of data presentation and results (Bryman & Bell, 2007). Moser & Korstjens (2018) define research design as the arrangement of conditions for data collection and analysis in a way that aims to combine fitness for research objectives with the economics of the research process rescue.

Therefore, study design is a blueprint for conducting a study in order to control as much as possible the factors that may hinder the desired outcome of the study. There are six types of study designs, namely; case studies, trials, archives, comparisons, cross-sectional and longitudinal designs (Jonker and Pennink, 2010; Omari, (2011).

This study adjusts the cross-sectional study design. According to Spector O (2019) and Matotola (2016), a cross-sectional study design is defined as a quasi-experimental design between subjects from which data collection is performed immediately for those involved, mandarin. This research model is used for economic reasons. The cross-sectional study design allows the researcher to collect data and estimate the outcome of the collected sample in a short time and within an expected budget.

### **3.3 Area of the Study**

This study was conducted at Dodoma University in the Dodoma region. The Dodoma region is located in central Tanzania. Dodoma is the capital of the United Republic of Tanzania. This area lies between latitudes 40 and 70 30' in the south and between longitudes 350 and 370 in the east (ESRF & UNDP, 2019). Selection of the study area is based on the number of students, available resources, and facilities. Other universities including Mzumbe University, Sokoine University and Dar es Salaam University are also considered when choosing a study area. Dodoma University was chosen due to its capacity.

According to the Dodoma University Charter (2019), the university has approximately 26,000 students and about 90 librarians. The university is expected to accommodate 50,000 students when fully operational. The university is fully equipped with the facilities and resources to serve the University of Dodoma community. With this number of students, the researcher sought to assess the information needs and information-seeking behavior of University of Dodoma students.

### **3.3.1 University of Dodoma (UDOM)**

It is a public university established in 2007. It is located 8 km from the city of Dodoma. Dodoma University has approximately 26,000 students and about 90 librarians. Currently, there are 7 colleges and universities that are expected to accommodate 50,000 students when fully operational (Dodoma University, 2009). Each Dodoma University campus has its own library. This provides a unique information delivery experience as each library is uniquely designed to satisfy users based on their information needs. Suffice it to say that Dodoma University's libraries serve all students, academic staff, and researchers. These criteria contribute to the selection of the field of study.

### **3.4 Research Approach**

Creswell (2014) defines a research approach as the entire network involved in research in data collection, data organization, data analysis and interpretation. The study used a mixed approach. Hence, the quantitative approach is used to quantify the data collected through the questionnaire and on the other hand, the qualitative approach is used to add more information from the opinions of the respondents.

### **3.5 Study Population**

According to Krishnaswami, (2003), a population is the group of subjects being studied, or a group of individuals that represent the entire population in the study (Mohsin, 2016). For their part, Brink, Van der Walt and Van Rensburg, (2012) describe a population as a collection of people or objects of interest to the researcher, that is, that meet the criteria that the researcher studies.

Also, Kombo and Tromp, (2006) define a population as a group of individuals, objects or items for which a sample is taken to measure, e.g., student population. The study population included Dodoma University students, librarians, and faculty. UDOM's target population is estimated at 392, including UDOM students, teachers, and librarians. These groups were included in the study because they are continually involved in the delivery of library resources and services.

### **3.6 Sample Size and Sampling Techniques**

#### **3.6.1 Sample and Sample Size**

Rwegoshora, (2006) and Wimmer, (1991) define a sample as a subgroup or subset of a population that is considered representative of the population as a whole. On the other hand, sample size refers to the number of items selected from the universe to form a sample (Kothari, 2002). The sample size for this study was 198 respondents. They are simply randomly and purposefully selected from a target population of 392. The researcher feels that this number is manageable.

#### **3.6.2 Sampling frame**

The Sampling Frame consisted of 178 Students, 15 Librarians and 5 Lecturers selected from a target population of 392 as shown in Table 3.1 .

**Table 3.1: Sampling Frame for UDOM n=198**

Category	UDOM	Total
Students	178	178
Library Staff	15	15
Lecturers	5	5
<b>Total</b>	<b>198</b>	<b>198</b>

**Source:** Field Data (2022)

According to Table 3.1 the sampling frame comprised of university students (178), librarians (15) and lecturers (5), making a sample size of 198 respondents who participated in this study.

Yamane formula was used for computation of sample size at 90% level of significant. The research surveyed all Librarians because of the small number of populations

**Yamane formula:**

$$n = \frac{N}{(1 + Ne^2)}$$

Whereby; N is total population

n is sample size

e is error term.

Number of study population N = 392

e = Margin of error (MoE), e = 0.05

n= corrected sample size,

The Yamane formula for determining the sample size is given by:

Let's assume that the population is 392. At 5% MoE.

The sample size would be:

$$n = \frac{392}{1 + 392 (5\%)^2}$$

$$n = \frac{392}{1 + 392 (0.05)^2}$$

$$n = \frac{392}{1 + 392 (0.0025)}$$

$$n = \frac{392}{1 + 0.98}$$

$$n = \frac{392}{1.98}$$

$$n = 197.979797 \sim 198$$

$$n = 198$$

In a finite population, when the original sample collected is more than 5% of the population size, the corrected sample size is determined by using the Yamane's formula.

### 3.6.3 Sampling Technique

Sampling refers to the process of obtaining information about an entire population by examining only a portion of it, or by selecting units, such as people and organizations, from the population of interest (Kothari). 2004; Mugenda and



Mugenda 2003; Trochim 2001). According to Zaina (2007) & Mohsin (2016), the sampling procedure refers to the process of selecting the overall proportion to test the research hypothesis. The random and purposeful sampling techniques used in this study are as follows:

#### **3.6.3.1 Purposive Sampling Technique**

According to Saunders et al. (2007) and Mohsin, (2016). Purposive sampling is a type of sampling process that allows a researcher to use judgments to select cases that help answer research questions and achieve research goals. Similarly, Krishnaswami and Ranganathan, (2005) refer to purposive sampling as a deliberate selection of sampling units that fit certain predetermined criteria. In this context, purposive sampling involves the selection of cases deemed most relevant for a given study.

Wimmer and Dominick, (1991) show that a sample is purportedly chosen with the understanding that it is not representative of the general population but is attempting to represent a particular segment of the population. This method is less expensive, more practical, and ensures to include relevant elements in the sample.

In this study, purposive sampling technique was used to select a specific group of respondents, including librarians and lecturers. The selection of faculty and librarians allows researchers to better understand the information needs and information-seeking behavior of students at Dodoma University. This method was also used

because the nature of this study required data collection from knowledgeable sources and experienced individuals at the University.

### **3.6.3.2 Random Sampling Technique**

This technique involves a random selection of samples. Kothari (2009) defined probabilistic sampling as a technique that allows all samples to have an equal chance of being selected within a sample size. This implies that in a given study, the entire population has an equal chance of being selected. This study used a simple random sampling technique to select a sample of 178 students to participate in fill out the distributed questionnaire.

## **3.7 Data Collection Methods and Devices**

Kothari (2004) argues that data collection methods are tools that guide the researcher to collect data to come up with answers to the problem being studied. Data for this study were collected using a combination of methods (cross-checking) including standardized questionnaires with closed and open-ended questions, interviews and literature sources, in order to improve the validity of the data. Validity and reliability of the data collected, and because each method has its own strengths and weaknesses. The methods used in data collection make it possible to obtain the necessary data to answer the proposed research questions. The use of multiple methods also minimizes how specific some methods are to specific groups of knowledge. Two types of data are collected as primary data and secondary data.

### **3.7.1 Secondary Data**

Secondary data is data that has been processed. Secondary data for this study were collected through a literature review. Published and unpublished sources such as books, journals, research articles, statistics, reports, government and non-governmental reports, memoirs, Internet sources (such as e-books, electronic journals articles) were discussed and the main points were summarized.

### **3.7.2 Primary Data**

Primary data is that collected directly from respondents and is therefore original in nature (Kothari, 2004; Krishnaswam, 1993). Primary data for this study were collected using a standardized questionnaire with both closed and open ended questions. In addition, in-depth interviews were conducted to supplement the survey method by questionnaire.

### **3.7.3 Data Collection Tools**

A research instrument is a device used to collect data in a research enterprise. Different tools were used to collect data for this study. The study used questionnaire guide and interview guide for data collection.

#### **3.7.3.1 Questionnaire Guide**

A questionnaire is a commonly used data collection tool that provides a list of written questions for the opinion of individuals, in a form, on issues of direct relevance. further to the goal of the study (Aina, 2004). Similarly, McLeod (2018)

refers to questionnaire as a data collection method in survey research that provides a series of questions in a specific order with the aim of obtaining desired information about the research topic, rescue.

In this study, a questionnaire with closed and open questions was administered to 178 UDOM students. The first part of the questionnaire contains demographic information about the respondent, which includes the respondent's university, course, year of study, gender, and age. Respondent demographic information was captured to determine its effect on the study's conclusions. The second part of the questionnaire includes questions to collect information about the information sources, closed and open questions to collect qualitative and quantitative data related to the challenges and solutions related to the need. Information needs and information seeking behavior of students. The last section presents the general questions according to the Likert scale.

These questions aim to measure the influence of demographic characteristics such as age, sex, years of schooling, and their influence on information needs and information-seeking behavior. According to Gliem and Gliem (2003), Likert is useful for measuring the intensity and direction of respondents' opinions. The questionnaire was distributed to the respondents under the direction and close supervision of the researcher. Furthermore, the questionnaire allows the researcher to meet all the targeted respondents at Dodoma University within a given time frame (Cohen et al., 2007).

Self-administered questionnaires often have the advantage of allowing respondents to complete a curated questionnaire at their own pace and covering a broader audience, and they also tend to reduce interviewer bias, question. The downside of self-administered questionnaires is that they tend to have low response and response rates, which may require follow-up. In this context, 178 questionnaires were distributed and all returned, thus recording a return rate of 100%.

### **3.7.3.2 Interview guide**

Enon, (1998), argues that the interview guide involves asking questions orally or by voice or is useful in gathering stories related to the participants' life experiences. According to Cohen, Manion and Morrison (2007), interview refers to a face-to-face conversation between two people for the purpose of gathering information necessary for the research problem.

According to Omary (2011), the interview data collection method helps to accurately screen and capture emotions, behaviors as well as verbal and non-verbal questions. This study interviewed only 20 people, including 15 librarians and 5 lecturers. Respondents were selected to participate in the interviews based on their experience and skills in the information needs and information seeking behavior of students. The interview guide used in the interview process helps the researcher to obtain detailed information about the students' opinions, views, feelings towards information needs and information-seeking behavior. The interview guide was developed by the researcher based on the objectives of the study. In addition, this information makes it possible to obtain reliable data to supplement the information obtained through the

questionnaire. However, it should be noted that the interview data collection method is expensive, time consuming, requires preparation, and limits the number of sample sizes.

#### **3.7.4 Data Collection Process**

The questionnaire was distributed to respondents at UDOM. Field work at UDOM started from December 2021 to March 2022. The researcher used 24 days at the UDOM physically to distribute the instruments to respondents as well as to conduct the interviews. All respondents were asked to complete the questionnaires and a specific time for collection was agreed upon. Completed questionnaires were collected at the site in between January 22 to April 2022. Interviews were also arranged with respondents and were conducted at the site from January 2022 to March 2022 of the 178 questionnaires distributed to respondents at UDOM; all were dully completed and resubmitted, thus recording a response and response rate of 100%. Overall, this is a very high response and return rate. At the age of 2022, after consulting with my supervisor, I decided to close the data collection.

### **3.8 Processing and Analyzing Data**

Data processing includes editing, coding, categorizing and tabulating the collected data so that it is suitable for analysis. According to Kim & Wang (2019), data analysis refers to calculating certain measures as well as finding relationship patterns that exist between groups of data. Similarly, Descombe (2007) and Rwegoshora, (2006), argue that data analysis is the arrangement of data into its constituent parts to

obtain answers to research questions, with the aim of achieving some general principles may apply to other questions, situation.

In this study, the obtained data were sorted by main topics, cleaned, labeled, coded and analyzed both qualitatively and quantitatively, using the appropriate computer software SPSS (Statistics Package for social science, 20th edition, to find frequencies, percentages, graphs, figures, and tables. In addition, frame analysis was used for qualitative data collected from the interview. This data was entered by note; The audio recordings as well as the returned questionnaire samples were processed and analyzed using framework analysis. Lacey and Luff (2001) argue that the use of framework analysis in qualitative data analysis provides the researcher with flexibility to clarify respondents' information during data analysis.

### **3.9 Reliability and Validity**

According to Drost (2012), reliability is called consistency or stability under many different conditions under which essentially the same results will be obtained. In this context, research measurement must be valid and reliable. In other words, reliability ensures that the results are reproducible. On the other hand, validity ensures that research instruments measure what they are supposed to measure (Golafshani, 2003).

### **3.10 Ethical Considerations**

According to Benatar (2002), ethical considerations refer to the rules of conduct for research or research supervisors that force the researcher to behave in an acceptable manner. Benatar and Singer (2000) stated that confidentiality, respect for

respondents' consent, avoidance of conflicts of interest and prejudice are among the research ethics factors that every researcher should consider. Research should consider when conducting a search. In addition, Rhodes (2010) emphasizes that any research involving humans should address issues of ethical considerations in order to respect the dignity of the people involved in the research. The study adheres to an ethical code of conduct, the privacy of the participants is respected, and the researcher allows the voluntary nature of the participation as well as the informed consent of the participants. The confidentiality of the collected data is maintained, the researcher also ensures acknowledgment of the work of other authors used in any part of the thesis.

In addition, institutional ethical issues were observed, including obtaining permission to conduct research. The administration of the instruments is done prior to obtaining the necessary research permits from the responsible institution (University of Dodoma and the Open University of Tanzania).



## **CHAPTER FOUR**

### **DATA PRESENTATION, ANALYSIS, AND DISCUSSION**

#### **4.1 Introduction**

This chapter presents an analysis and discussion of the main results of this study. The main objective of the study was to assess the information needs and information-seeking behavior of students at Dodoma University (UDOM).

This study was guided by the following specific objectives;

First, identify the types of information resources needed by students. Second, determine the factors affecting information needs and information-seeking behavior of university students. Third, identify challenges and solutions associated with students' information needs and research behavior.

Data collection for the survey was conducted between 2021 and 2022 using a combination of methods, including self-administered questionnaires with open and closed questions, and interview. A total of 198 respondents participated in the study. There were three main types of respondents, namely 178 students, 15 librarians and 5 teachers.

In this chapter, questions from the research tools are used to collect opinions, analyze respondents' comments, and provide researchers with their own interpretations. Similarly, open-ended questions were analyzed qualitatively. The respondents' selected comments are used to express their own views on the issues raised. The

results are presented as a mix of narratives, figures, and tables. Descriptive statistics are presented as frequencies and percentages. The questions were grouped according to the main objectives of the study and the data were analyzed using the Statistical Package for Social Science Research (SPSS version 20).

## 4.2 Biographical Data of Respondents

Questions 1 to 5 seek biographical data from respondents regarding their gender, age, educational or academic status, institutional affiliation, and expertise. This information is important because it provides practical knowledge of the characteristics of the population being studied. Likewise, it is also important to obtain this information, as it will determine the needs and uses of library resources by UDOM students.

### 4.2.1 Response Rate

A total of 178 respondents were drawn from UDOM. Responses are summed up in Table 4.1.

**Table 4.1: Distribution of Respondents at UDOM n=178**

Category	Targeted Number	Actual Number	Percentage
University students	178	178	100%

**Source:** Field Data (2022)

The results in Table 4.1 show that out of 178 questionnaires distributed to UDOM students, 178 (100%) were returned. Overall, the results show a very high response rate, with UDOM students applying for a 100% return rate.

#### 4.2.2 Demographic Characteristics of the Respondents

The term demographics refers to a particular characteristics of a population (source) Demographic information provides data regarding research participants and is necessary for the determination of whether the individuals in a particular study are a representative sample of the target population for generalization purposes. The following socio demographic characteristics were studied: age of the respondents, gender and educational level.

#### 4.2.3 Distribution of Respondents by Gender

According to 2022 Census the gender representativeness of Tanzania was 30,053,130 (49%) male and 31,687,790 (51%) female, which comprised a total population 61,741,120. It is submitted that knowledge of the gender of respondents is important, in order to accommodate the views and position of both males and females in this study. Distribution of the sample was considered to be reasonably representative as shown in Table 4.2.

**Table 4.2: Distribution of Respondents by Gender (n=178)**

No.	Category	Frequency	Percent
1.	Female	87	48.9
2.	Male	91	51.1
	<b>Total</b>	<b>178</b>	<b>100</b>

**Source:** Field Data, (2022)

The results in Table 4.2 show that the majority of respondents are male 91 (51.1%), female is 87 (48.9%). These findings are similar to the study done by Mwaimu (2013) as observed that historically African universities have always been male-dominated. There are also social, economic and cultural factors that prevent women from accessing education, although recently most African universities have made concerted efforts to close the gender gap in student enrollment.

#### 4.2.4 Distribution of respondents by Age

Respondents were requested to indicate their age, and the findings are presented in Table 4.3.

**Table 4.3: Distribution of Respondents by Age (n=178)**

No.	Age	Frequency	Percent
1.	Below 20 years	12	6.7
2.	21-30 years	148	83.1
3.	31-40 years	16	9.0
4.	41-50 years	2	1.1
	<b>Total</b>	<b>178</b>	<b>100</b>

**Source:** Field Data, 2022

The results in Table 4.3 show that 148 (83.1%) respondents are aged between 21 and 30 years old, followed by 31 to 40 years old, 16 (9.0%) 12 (6.7%) under 20 years old. age, while 2 (1.1%) of the respondents belonged to the age group 41-50. This result shows that the majority of respondents belong to the age group of 21 to 30 years. The results imply that the age profiles of the majority of college students are

those who arrive immediately after finishing high school, compared with other age groups who sometimes attend college when they are adults and have worked somewhere in the country. As a result, the majority of respondents belong to the group of digital natives, who are considered familiar with the use of ICT and electronic resources. Suffice it to say that the population is an ideal to provide the necessary information.

#### 4.2.5 Distribution of Respondents & Year of Study

Respondents were asked to mention their year of study at the University of Dodoma (UDOM), and the findings are presented in Table 4.4.

**Table 4.4: Distribution of Respondents Per Year of Study (n=178)**

No.	Year of Education	Frequency	Percent
1.	First year	42	23.6
2.	Second year	61	34.2
3.	Third year	72	40.5
4.	Fourth year	3	1.7
	<b>Total</b>	<b>178</b>	<b>100</b>

**Source:** Field Data, 2022

Regarding the year of study, Table 4.4 indicates that 72(40.5%) are in third year, 61(34.2%) are in second year, 42(23.6%) first year and 3(1.7%) are in the fourth year. Generally, the findings show that multiple level of students participated in this study.

#### 4.2.6 Distribution of Respondents per Faculty or School

Respondents were asked to indicate the name of Faculty or school, which they belong to and the findings are presented in Table 4.5.

**Table 4.5: Distribution of Respondents as Per Faculty or School (n=178)**

No.	Responses	Frequency	Percent
1.	Business administration	32	17.9
2.	Education	69	38.8
3.	School of Law	36	18.8
4.	Health Science	18	10.1
5.	Social Science	23	12.9
	<b>Total</b>	<b>178</b>	<b>100.0</b>

**Source:** Field Data, 2022

The results in Table 4.5 show that the majority of respondents 69 (38.8%) belong to Faculty of Education, followed by 36 (20.2%) of Faculty of Law, 32 (17.9%) of Faculty of Business Administration business and 23 (12.9%) Faculty of Social Sciences, while 18 (10.1%) Faculty of Health Sciences. The results show that the majority of respondents are from the Faculty of Education.

Overall, the results showed that respondents from each faculty participated in this study. Faculty and school involvement is important because the users of the information belong to the faculty or school and therefore the results will provide a

picture of whether the available information is appropriate to meet the needs of the faculty or school users in the system. Conventional wisdom suggests that users can use the information in relation to their learning efforts.

#### 4.2.7 Distribution of Respondents by Programs

Respondents were asked to indicate the programme they pursued. The findings are presented in Table 4.6.

**Table 4.6: Distribution of Respondents Per Programme (n=178)**

No.	Programs	Frequency	Percent
1.	Bachelor of Art in Tourism and cultural Heritage	16	8.2
2.	Bachelor of Arts in Development Study	12	6.7
3.	Bachelor of Commerce in International Business	23	12.9
4.	Bachelor of education	58	32.6
5.	Master's in Education	11	6.1
6.	Bachelor of Health information System	21	11.8
7.	Bachelor of Law	22	12.2
8.	Masters in Political Science	9	4.7
9.	Masters of Health Science	6	2.1
	<b>Total</b>	<b>178</b>	<b>100.0</b>

**Source:** Field Data, 2022

The results in Table 4.6 show that 58 (32.6%) respondents are studying Bachelor of Education, 23 (12.9%) Bachelor of International Business and Commerce, 22

(12.2%) of Bachelor's degree. Law, 21 (11.8%) Bachelor of Arts in Health Information Systems and 16 (9.2%) Bachelor of Arts in Tourism and Cultural Heritage. Others, including 12 (6.7%) Bachelor of Arts in Development Studies, 11 (6.2%) Bachelor of Laws, 9 (4.7%) Master of Political Science, while only 6 (2.1%) respondents pursued a master's degree in health sciences. Suffice it to say that the results show that respondents from different programs participated in this study and shared their experiences about information needs and document search behaviour. The researcher was able to establish and understand the information-seeking behavior of students.

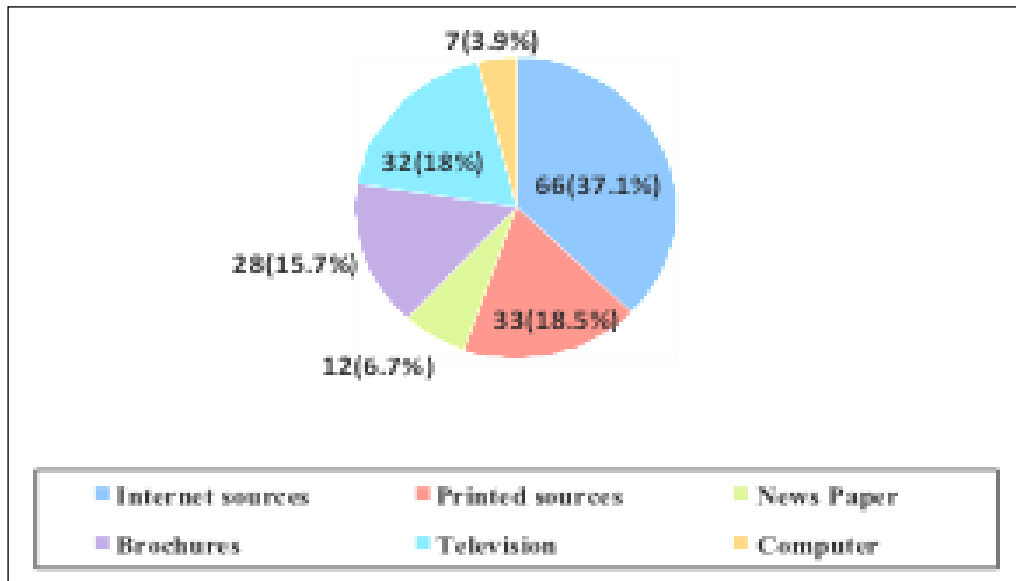
### **4.3 Types of Information Resources Needed by the Students**

The number one objective of this study was to identify the types of information sources that students need to meet their academic obligations. Questions about the types of information resources that students need to achieve this goal include: resources available at the UDOM Library; Frequency of using information sources; the preferred source is used to meet the information needs of students; a Source of Information Meet the information needs of students. These questions have been grouped because of related search information.

#### **4.3.1 Information Sources available at UDOM Library**

The respondents were asked to mention the types of information sources that are available at the University of Dodoma Library. The findings are presented in figure





**Figure 4.1: Information Sources Available at UDOM Library**

**Source:** Field Data, 2022

The results in Figure 4.1 show that 66 (37.1%) of the respondents mentioned the Internet as one of the sources of information available in the library, 33 (18.5%) mentioned computers among them. On sources available in the library, the printed materials have been mentioned. by 32 (18%) respondents as sources of information that is found at the UDOM library, 28 (15.7%) mention promotional materials are among the resources available at the library, and 12 (6.7%) available respondents mentioned newspapers, while 7 (3.9%) mentioned television. Overall, the results show that the Internet sources is the most common source of information mentioned by the respondents. Such a situation is attributed to the fact that internet sources are available due to their advantages in that individuals can access information anytime, anywhere and conveniently. The results are consistent with the study of Innocent & Masue, (2020) and Rumanyika and Mashene, (2015) who reported that in higher education institutions, the internet source is the main source of information.

The results also revealed that the respondents mentioned the computer and the print source as the source of information available in the UDOM library. This implies that in addition to Internet resources, the library also has computers and printed materials as sources of information. During interview with librarians, it was reported that internet and printed sources are major sources of information available, also brochures, and newspapers were also mentioned by the participants.

Among interviewed Lecturers who are key informants, explained that the popularity of the internet sources is attributed by the fact that the library has subscribed to various electronic databases that offer various information sources such as books, journal, and reports as explained:

*"... .The library has subscribed to many electronic databases that offer current sources, with the availability of free internet. It's obvious that students use internet sources....."*

(Interview with participant number 3).

#### **4.3.2 Frequency on the use of Information Sources**

The study assessed the frequency of use of information sources available to students at the UDOM library. In order to achieve this, the respondents were asked how often they use the information sources available in the library. Table 4.7 illustrates the results.

**Table 4.7: Often the use the Source of Information for your Information Needs?**

Sources	Daily		Weekly		Monthly		Annually		Never	
	F	%	F	%	F	%	F	%	F	%
Internet	94	52	40	22	19	10	24	13	1	1.
Printed	78	43	44	24	50	28	1	0.6	5	2.8
Newspaper	32	18.	48	27	46	25.	27	15	25	14
Brochures	87	48	40	22.	29	16	5	2.1	17	9.3
Television	74	41	53	29.	19	11	11	6	21	12
Training	5	6.5	0	0	5	6.5	6	7.8	61	79.2

**Source:** Field Data, 2022

The results in Table 4.7 show that the majority of respondents 94 (52.8%) said they use the Internet daily, followed by 87 people (48.8%) who said they use promotional materials daily. , 78 people (43.8%) reported using printed newspapers daily. documents and 74 (41.6%) reported using television daily as a source of information. Overall, these results show that the majority of 94 respondents (52.8%) prefer to use the Internet daily as a source of information. However, the results showed that 5 (2.9%) of the respondents reported using training as a source of information. The use of multiple Internet resources is due to the availability of Internet access in the library and the use of mobile phones (smartphones). These trainings provided to students include orientation for freshmen and on other occasions, information literacy training is provided to inform students of the availability of different resources and how to access them.

During the interviews, the participants (librarians) were asked to rate the frequency of using the information resources available in the library. The results show that Internet sources and printed newspapers are used frequently. The results show that newspapers, television and advertising materials are also frequently used in the library. These findings are further supported by the following verbatim quote from several respondents who stated that:

*"..... Most of them use internet, when there are no internet services, they don't visit the library ....."*  
(Interview with number 1, 2, 4, 6, and 9 Participant)

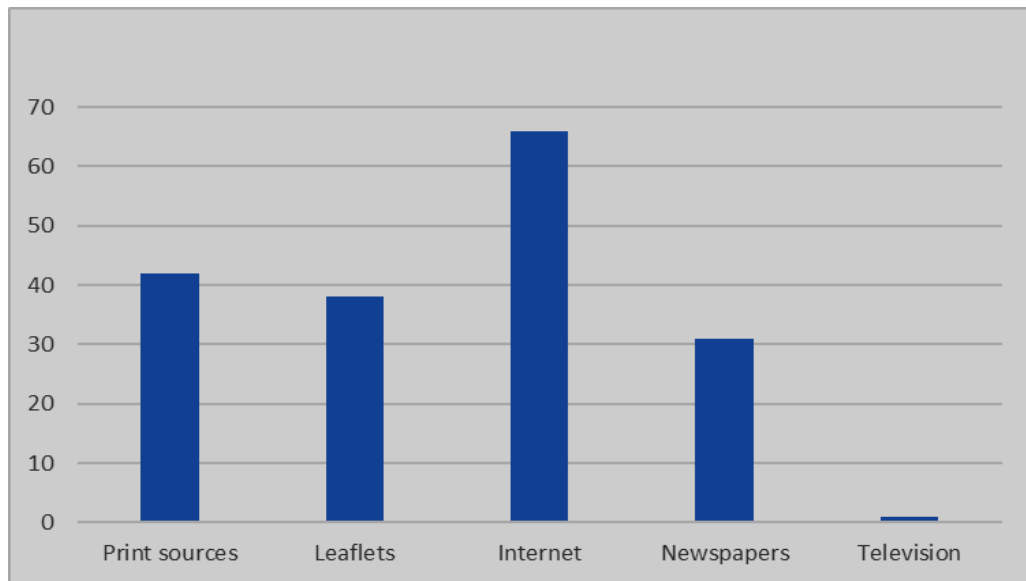
Another informant explained the usage of printed sources by students who visits the library as follows: .

*"... there are times when they use printed materials, often when they are assigned by their lecturers to use certain books in their assignment, they use those books....."*  
(Interview with participant number 7)

Generally, this statement confirms that electronic resources and printed resources are the most preferred sources used in the library. These findings collaborate well with the study conducted by Adeniji (2017); Adetimiriin (2004) who pointed out that due to the development of Information and Communication Technologies, users are accessing information by using computers.

#### **4.3.3 Preferred Source used to Meet Students' Information Needs**

Respondents were also asked to indicate their most preferred sources they use to meet their information needs, and the findings are as shown in Figure 4.2.



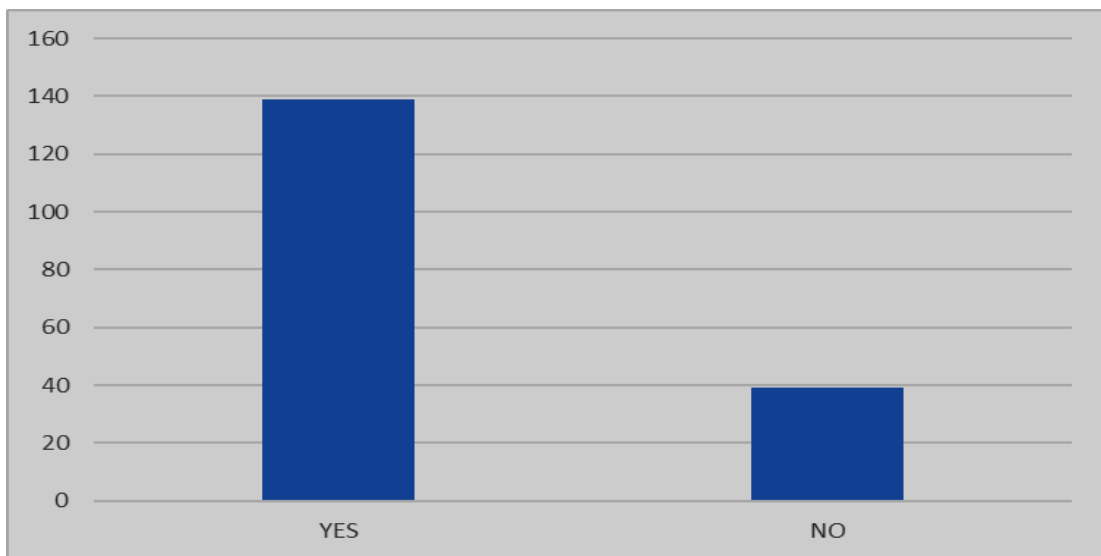
**Figure 4.2: Preferred Source used by Respondents**

**Source:** Field Data, 2022

The results in Figure.4.2 show that the majority of respondents 66 (37.1%) mentioned the Internet as their preferred source of information, followed by 42 (23.6%) mentioned print sources, 38 (21.4%) mentioned leaflets, 31 (17.5%) mentioned newspapers, while only 1 (0.6%) mentioned television. The results show that internet sources are used the most by respondents for their information needs, these results are consistent with the study by Adeniji (2017), who suggested that "somehow, power sources. Electronic sources such as Emerald and WhatsApp are also used by the respondents, the number of respondents using electronic resources is low because print resources are most popular with students compared to electronic resources.

#### 4.3.4 Information Sources Meeting the Information Needs

The researcher also intended to know whether information sources available at UDOM library meet respondents' information needs. Findings were presented in Figure 4.3.



**Figure 4.3: Information Source Meets Respondents Demand (n=178)**

**Source:** Field Data, 2023

The results in Figure 4.3 show that 139 (78%) respondents agree that the resources available in the library meet their information needs, followed by 39 (21.9%) who answered NO.; available information sources do not meet their information needs. In general, the results imply that respondents find that the available information sources meet their information needs. The results are contrary to the research conclusions of Rumanyika and Mashenene, (2015), that the library contains irrelevant documents and does not meet the information needs of users.

During the interview with librarians, key informants, were asked whether the information resources available in the library would meet the information needs. It is reported that the information available in the library meets the needs of the users. . These results are in contrast to the study of Adeniji, (2017); Adetimiine, (2004); Dutta, (2009); Malekani who (2006) argues that the information resources in the library are very weak and do not meet the needs of users.

#### **4.4 Factors that Influence Information Needs and Information Seeking**

##### **Behavior**

The second objective of this study was to determine the factors affecting information needs and information seeking behavior. Understanding the factors that influence information needs and information-seeking behavior is important because information can only be used if users are skilled in finding and locating information. Possessing relevant search skills is considered to trigger for information needs and information-seeking behavior of individuals. To this end, respondents were asked to indicate reasons for information needs and search behavior and assessment statements that influence information needs and search behaviour. These questions have been grouped because are related.

##### **4.4.1 The Reasons for Information Seeking Behavior**

Respondents were asked to indicate the reasons for information seeking behavior, and the findings are presented in Table 4.8.

**Table 4.8: Reasons for Information Seeking (n=178)**

No.	Reasons for information seeking	Frequency	Percent
1.	Doing assignment	44	24.7
2.	To increase knowledge	77	43.3
3.	Prepare for examination	52	29.2
4.	Hobby	4	2.2
5.	Leisure	1	0.6
	<b>Total</b>	<b>178</b>	<b>100</b>

**Source:** Field Data, 2022

The results in Table 4.8 show that 77 (43.3%) respondents said the reason is for increasing their knowledge, 52 (29.2%) said they were preparing for the examination, 44 (24.7%) doing homework, 4 (2.2%) looking for information as a reason. hobby, while 1 (0.6%) indicates leisure. Overall, the results show that most of the 77 respondents (43.3%) seek information to improve their knowledge. This result strongly supports the study of Stores (2017) when it shows that university teaching requires autonomous learning because during the lesson, the lecturer provides students with 25% understanding and 75% must come from student self-study.

This is why the majority of respondents said they seek information to improve knowledge.

*"... When they have assignment and examinations, they fill up the library, we even offered library for 24 hours' services sometimes to keep up with their needs...."*  
(Interview with participant number 10 Participant)

Another informant explained that college education encourages students to read, do

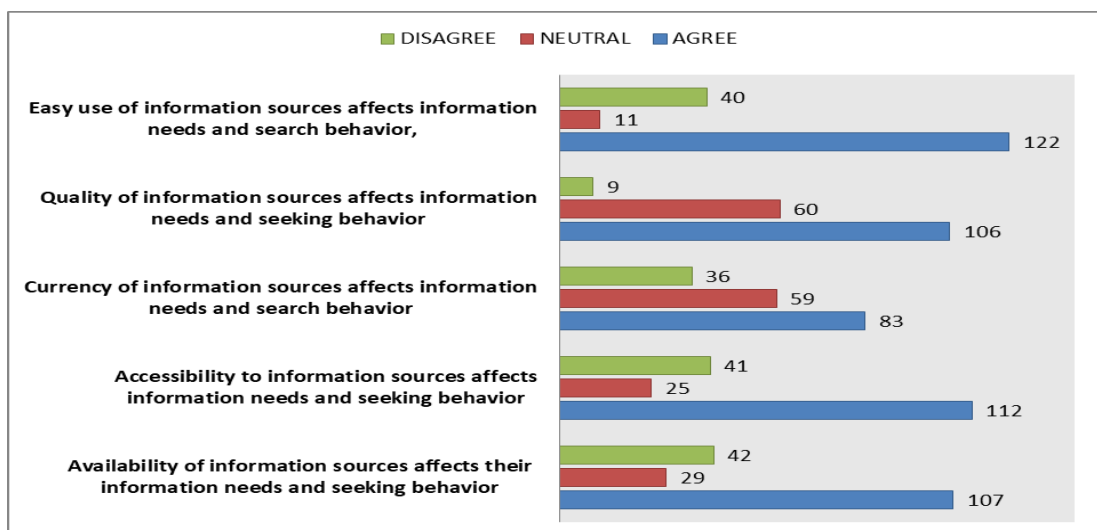


homework, prepare for exams, and find information on their own using a mobile device or computer to study and respond to their information needs on the Internet. Usually this quote confirms that the reason for looking for information is to do homework and prepare for exams and that reading can end as soon as the exam is over instead of being considered part of it in lifelong learning.

#### 4.4.2 Rating the Factors that Influence Information Needs and Information Seeking Behavior

The researcher wanted to understand the factors affecting the information needs and seeking behavior of students. To achieve this, respondents were asked to rate the statements according to the Linkert scale showing the factors affecting students' information needs and seeking behavior on a scale from 1 = disagree to 3 = agree).

The results are shown in Figure 4.4



**Figure 4.4: Factors that Influence Information Needs and Information Seeking Behaviour**

Source: Field Data, 2022

The results in Figure 4.4 show that 107 (60%) agree with the statement that the availability of information sources affects their information needs and seeking behavior. 42 (23.5%) of respondents disagreed with this statement, while 29 (17%) of respondents were neutral with this statement. Overall, the results imply that the majority of respondents find that when information resources are available, it encourages them to seek out what they want and use them appropriately.

Regarding the perception that accessibility to information sources affects information needs and seeking behavior, the results show that 112 (60.1%) respondents agree with the statement, 41 (23.5%) disagree with the statement, while 25 (16.2%) oppose neutral. Overall, the results show that respondents agree that access to information sources affects their information needs and search behaviour. This implies that when available information sources are accessible, users will find them easy to use whenever there is a need for information.

Regarding the perception that the quality of information sources affects information needs and seeking behavior, the results show that the majority of respondents 106 (59.6%) agree with the statement, 60 (33.7%) hold a neutral opinion, while 9 (5 %) of the respondents disagree with this statement. Overall, the results showed that most of the respondents agreed with the statement.

Regarding the perception that the Currency of information sources affects information needs and search behavior, the results show that 83 (46.6%) respondents agree with the statement, 59 (33.1%) hold a neutral opinion, while 36 (20.2%) respondents disagree with the statement.

In addition, regarding the statement that easy use of information sources affects information needs and search behavior, the results show that 122 (68.5%) agree with the assertion. 40 (22.5%) said they disagree with this statement. While 11 (6.2%) of the respondents were neutral on this statement. Overall, the results show that most of the 122 respondents (68.5%) agree with the statements. These findings are supported by a verbatim quote from an interview with a librarian who stated that:

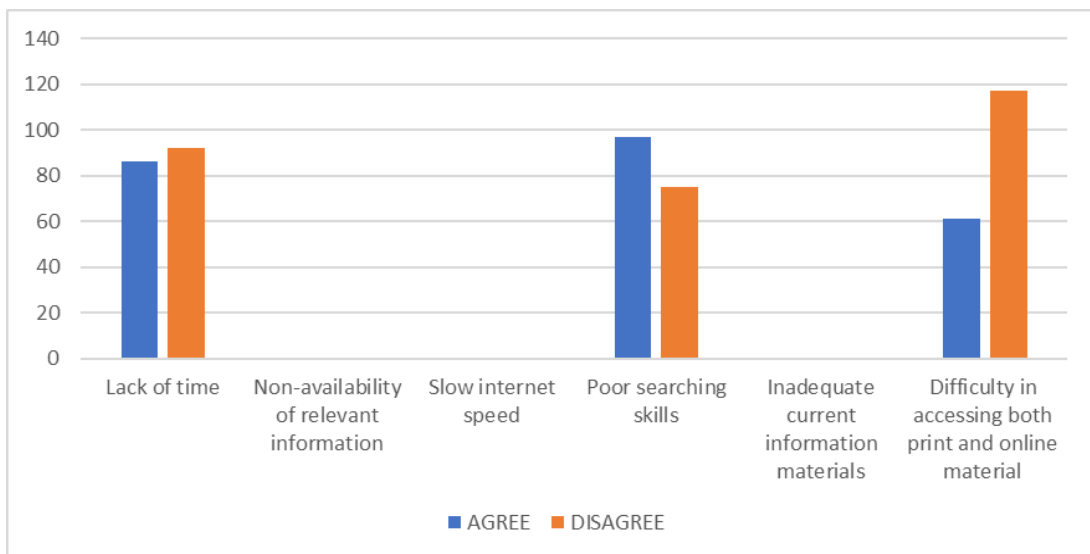
*"... there are all ranges of information sources in the library which are accessible to students all the time...."* (Interview with participant 9)

Collectively, this statement confirms the presence and accessibility of materials in the library, which in turn influences students' information-seeking behavior. This result is consistent with research conducted on student behavior research (**by whom???**).

#### 4.5. The Challenges Facing Students in Relation to Information Needs and Seeking Behavior

*The Third Specific objective of this study sought to identify the challenges and solutions associated with students' information needs and research behavior.*

The researcher wanted to gain insight on the challenges facing students while seeking information to meet their needs. To attain this objective, the respondents were asked to rate statement that express the challenges by using the scale of 1= strongly disagree to 5= strongly agree). The findings are as illustrated in Figure 4.5.



**Source:** Field Data, 2022

**Figure 4.5: The Challenges Facing Students when Seeking Information to Meet their Needs**

The results in Figure 4.5 show that 97 (54.5%) of the respondents agree that poor seeking skills are one of the challenges they face when seeking for information.

However, 75 (42.1%) disagree with this statement. These findings are consistent with research by Davies (2007), who reported that students in higher education institutions lack information-seeking behaviour. Although research shows that a large number of respondents disagree with this statement, the majority indicate that poor information seeking skills are the challenge they face when searching for information. The study results also revealed that the majority of respondents 92 (52%) disagreed with listing Lack of Time among the challenges they faced when searching for information, while 86 (48%) agreed agree with the opinion.

The study found that the majority of respondents 117 (66%) disagree with the statement that it is difficult to access printed and online materials among the challenges they face when searching for information, while 61 (34 %) agree with the statement.

Regarding the statement that slow internet speed is one of the challenges for their information-seeking behavior, 9 (5%) respondents disagreed with this statement.

Findings from key interviewed informants, about 7, said that poor internet speed, lack of time, and lack of information searching skills are among the challenges facing students.

The key informants further elaborated that:

.... *“There are variety of electronic information source in the library which require some skills on how to us them effectively, something that some of the students do not possess them simply because they don't attend information literacy trainings skills offered by the library”.*

#### **4.6 Summary**

This Chapter presented, analyzed and discussed, the major findings of this study. Quantitative data were analyzed using Statistical Package for the Social Sciences, version 20 used to generate frequencies and percentages, and qualitative data were analyzed using content analysis. Data was presented in Tables, and Figures.

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary

This section has organized a summary of the main findings according to the specific objectives of the study, which are: to identify the types of information sources students need, identify the factors that influence information needs and information-seeking behaviors, and identify challenges and solutions related to information needs and information seeking behaviour of students.

##### 5.1.1 Types of Information Sources that Students Need

The first objective of this study is to identify the types of information resources that students need. The results showed that 66 (37.1%) of the respondents mentioned the Internet as one of the sources of information available in the library, followed by 33 (18.5%) of the respondents mentioned computer, while 32 (18%) mentioned the print source. of the respondents as a source of information available in the UDOM library.

The results also indicate leaflets and newspapers among the information available at the library. Overall, the results indicate that the Internet is the most common source of information available in libraries. The results show that the majority of 94 (52%) respondents use the Internet daily as a source of information. However, the results showed that 5 (2.8%) of the respondents indicated the use of training as a source of information.

### **5.1.2 The Factors that Influence Information needs and Information Seeking Behavior**

Research shows that the availability of information sources affects students' information needs and seeking behavior. In addition, the accessibility of information sources affects information demand and search behavior. In addition, the study also shows that the quality of information sources and the usability of information sources have an influence on information demand and search behavior.

### **5.1.3 The Challenges Facing Students in Relation to Information Needs and Seeking Behavior**

Research results show that lack of information retrieval skills is the challenge that students face when searching for information. However, the study results showed that respondents disagreed that inadequate current information hinders their information-seeking behavior, suggesting that there are current documents in the library that influence them to their information-seeking behavior. In addition, research reveals that slow internet speed is a challenge that student's face in their information-seeking behavior.

In terms of suggestions for overcoming challenges, the study recommends continually purchasing and subscribing to different information sources so that libraries continue to have up-to-date information resources. The need to increase the number of computers in the library's computer room, the ongoing orientation and training of students on how to access electronic databases, and the need to increase



the workload and breadth of the internet in library to increase the speed of the library internet.

## **5.2 Conclusion**

Regarding the research results, the current situation of information-seeking behavior of students at Dodoma University is good. Over 60% of students reported that existing information sources met their information needs. Agree with statement indicating that library resources are current, accessible, and of good quality. However, the results show that lack of information search skills, lack of time and slow internet speed are some of the challenges that students face when searching for information. Therefore, continuous purchase of library resources, regular training and increase of library bandwidth should be done to improve the situation.

## **5.3 Contribution of research**

The study added new knowledge to the existing body of knowledge, matching the information needs and search behavior of UDOM students.

### **5.3.1 Contribute to Further research**

The results can be used to inform university management of what needs to be done to improve the situation at UDOM. This study also provides fertile ground for future research on information needs and search behavior. Finally, the results of this study can be replicated to other facilities at home and abroad with the same environment.

### **5.3.2 Support infrastructure**

#### **5.3.2.1 The library is accessible and well equipped**

This research will help Dodoma University invest in the establishment and maintenance of well-equipped libraries that provide access to a variety of information sources, including paper books, digital databases, academic journals and e-books. These libraries must have adequate seating, computer terminals and high-speed Internet connections to facilitate information search and research activities. In addition, the University must provide students with access to up-to-date technology resources, such as computers, laptops, and other digital devices, as well as software applications and tools. Required to access, retrieve and manage information. In addition, providing a reliable Wi-Fi connection throughout the school will allow students to access online resources and engage in collaborative research.

#### **5.3.2.2 Information literacy training**

In terms of information literacy, research will contribute to curriculum integration:

The university should integrate information literacy education into the curriculum in various fields. Information literacy modules or courses may be incorporated into the curricula of related programs to ensure that students are systematically trained in information retrieval, assessment, and evaluation. Pricing and effective use of information resources. Training must be tailored to the specific needs and expectations of different academic disciplines and implement peer mentoring programs in which seniors who have developed information literacy skills powerful, able to help and guide the underclassmen to be very effective.

#### **5.4 Recommendations**

Based on the results of the study, the Dodoma University Libraries management proposed to develop a regular library training and orientation mechanism to improve students' knowledge and information search skills. In addition, the study recommends the following for the Dodoma University Library:

- i.** Library management should provide detailed, informative instructions on how to find information, this can be presented in audio, mini-video and other interactive formats to meet needs. of unskilled students.
- ii.** Conduct professional library training and orientation
- iii.** Improve the Internet access in the library by increasing bandwidth, which will allow library users to easily search, surf and discover electronic resources
- iv.** Continuous purchase of library materials and related database subscriptions
- v.** Allocate sufficient funds to support and implement the above recommendations.

In addition, the study recommends the following for Dodoma University students:

First. make effective use of the available resources of the library, e.g. internet, books, newspapers, etc.

Participate in library orientation and training sessions to improve skills in searching and using information.

#### **5.5 Recommendations for Future Research Areas**

This study assesses information needs and information-seeking behavior of students at Dodoma University (UDOM). Based on the results of this study, a few

shortcomings emerged. Accordingly, the study recommends that studies should be carried out in the following areas:

- i. Evaluate the library's use of subscribed electronic information resources for improving student learning outcomes.
- ii. Evaluation of the use of printed information resources in the library of the higher education institution.
- iii. The librarian should present a proposal to the university's senior management for the integration of IL into the university curriculum as a university-taught course.

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## APPENDICES

### Appendix I: Questionnaire for Students

I am a master's student at Open University of Tanzania and am working on assessing information needs and information seeking behavior of students at Dodoma University. I would appreciate it if you could take a few minutes to complete this questionnaire. I assure you that the information you provide will be treated confidentially. If you have any questions, don't hesitate to ask.

#### A. DEMOGRAPHIC INFORMATION OF THE RESPONDENTS

##### 1. Gender

- a. Female                    [   ]
- b. Male                      [   ]

##### 2. Age

- a. Below 20 years            [   ]
- b. 21 – 30 years             [   ]
- c. 31- 40 years              [   ]
- d. 41- 50 years
- e. Above 50 years          [   ]

##### 3. Which year of education are you pursuing at the UDOM?

- a. First year                [   ]
- b. Second year             [   ]

c. Third year [ ]

d. Forth year [ ]

4. Which Faculty or school do you belong to?

Faculty of .....

School of .....

5. Which Program

.....

.....

**B: TYPES OF INFORMATION RESOURCES NEEDED BY THE STUDENTS**

4. What are the information sources that are available at the University of Dodoma Library?

- (a) Internet sources
- (b) Printed sources
- (c) Newspaper
- (d) Brochures
- (e) Television
- (f) Radio
- (g) Training programmes
- (h) Other specify.....

5. How often do you use the sources for your information needs?

Name of the source	Frequency of use				
	Daily	Weekly	Monthly	Annually	Never
Internet sources					
Printed sources					
Newspapers					
Brochures					
Printed sources					
TV					
Training					
Other (specify)					

6. Which is the most preferred source do you use to meet your information needs?

.....

.....

7. Do you think the information source you are using meets your information needs?

.....

.....

**C: THE FACTORS THAT INFLUENCE INFORMATION NEEDS AND INFORMATION SEEKING BEHAVIOR**

8. What are the reasons for your information seeking behaviour?

- a. Doing assignment
- b. To increase knowledge [   ]
- c. prepare for examination
- d. Hobby

9. Please Rate the following statements about the factors that influence information needs and information seeking behavior using the following Linkert scale (5= Strongly Agree, 4=Agree, 3= Neutral, 2=Strongly Disagree, 1= Disagree)

S/N	Statement	5	4	3	2	1
1	Availability of information sources influence my <b>information needs and information seeking behavior</b>					
2	Accessibility of information sources do influence my <b>information needs and information seeking behavior</b>					
3	Quality of information sources do influence my <b>information needs and information seeking behavior</b>					
4	Easy use of information sources do influence my <b>information needs and information seeking behavior</b>					
5	Currency of information sources do influence my <b>information needs and information seeking behavior</b>					
6	Adequacy of information sources do influence my <b>information needs and information seeking behavior</b>					

**E: THE CHALLENGES AND SOLUTIONS ASSOCIATED WITH THE INFORMATION NEEDS AND SEEKING BEHAVIOR OF THE STUDENTS**

10. Please Rate the following statements about the challenges associated with information needs and information seeking behavior using the following Linkert scale (5= Strongly Agree, 4=Agree, 3= Neutral, 2=Strongly Disagree, 1= Disagree)

S/N	Statement	5	4	3	2	1
1	Lack of time					
2	Non-availability of relevant information					
3	Lack of awareness about source of information					
4	Poor searching skills					
5	Inadequate current information materials					
6	Difficulty in accessing both print and online material					

11. What are your suggestions for improving information sources available at the University of Dodoma?

.....

.....

.....

.....

.....

**Appendix II: Interview for Librarians and Academic Staff**

1. Are Dodoma University students looking for information?
2. What is their preferred source when searching for information?
3. Do you think the information source they are using is giving them the correct information?
4. Do you conduct information literacy training to raise awareness of available resources?
5. If YES, how often?
6. What does IL training cover?
7. Do you use social media to market available resources?
8. What resources are available at Dodoma University?
9. Do the resources at UDOM meet their information needs?
10. How often do librarians/academic departments come in to educate students about available information resources?
11. Does the UDOM Library regularly collect new resources, both in print and electronic?
12. What criteria do you use to select and collect information sources?
13. What is the role of scholars and librarians in the process of identifying and selecting sources?
14. Based on your experience, do you think the information resources are adequate to meet the information needs and information-seeking behavior of students?
15. What will be done to facilitate student information seeking behavior at UDOM?



### Appendix III: Research Clearance Letter



## THE UNIVERSITY OF DODOMA

### OFFICE OF THE DEPUTY VICE CHANCELLOR-ARC

DIRECTORATE OF RESEARCH, PUBLICATIONS AND CONSULTANCY

P.O. Box 259  
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Our Ref. No. MA.84/261/02/62

10<sup>th</sup> September, 2021

To: All Principals  
Deans  
Directors  
The University of Dodoma

Re: Introduction Letter for Ms. Maria P. Dadu

The heading above is in reference.

The aforementioned is a bonafide student of Open University of Tanzania with Reg.No. PG201901771 undertaking **Master of Library and Information Management (MLIM)**. She has been granted research clearance by the Vice Chancellor of the Open University of Tanzania who has been empowered to issue research clearance to staff, students, research associates and researchers of UDOM on behalf of the Tanzania Commission for Science and Technology and she intends to conduct research at the University of Dodoma (UDOM).

On the basis thereof I kindly introduce her to you and request your esteemed office for any necessary support that she may require in conducting her research at your College/school and Institute. The title of her study is *"An Assessment of Information Needs and Information Seeking Behavior of Students at the University of Dodoma."* She will conduct her research from September to December, 2021.

Kindly do not hesitate to contact the undersigned in case of any queries.

Sincerely,

  
D. Goodie Mashi

Ag. Director-Research, Publications and Consultancy

C.C: Vice Chancellor  
Deputy Vice Chancellor-Academic, Research and Consultancy