

UNIVERSITY OF GHANA, LEGON

COLLEGE OF EDUCATION

SCHOOL OF INFORMATION AND COMMUNICATION STUDIES

DEPARTMENT OF INFORMATION STUDIES

**THE AWARENESS AND USE OF ELECTRONIC RESOURCES AMONG
STUDENTS OF SEVENTH-DAY ADVENTIST NURSING AND MIDWIFERY
TRAINING COLLEGE, ASANTA.**



**THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA,
LEGON, IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE
AWARD OF MA IN INFORMATION STUDIES DEGREE.**

SEPTEMBER, 2024.

DECLARATION

I declare with all sincerity that this dissertation with the exception of secondary information which was duly acknowledged, is the outcome of my original work supervised by Prof. E. E. Badu, and that this work has never been presented in part nor full for the award of another degree here in the University of Ghana or elsewhere. I accept responsibility for any shortcomings of this work.

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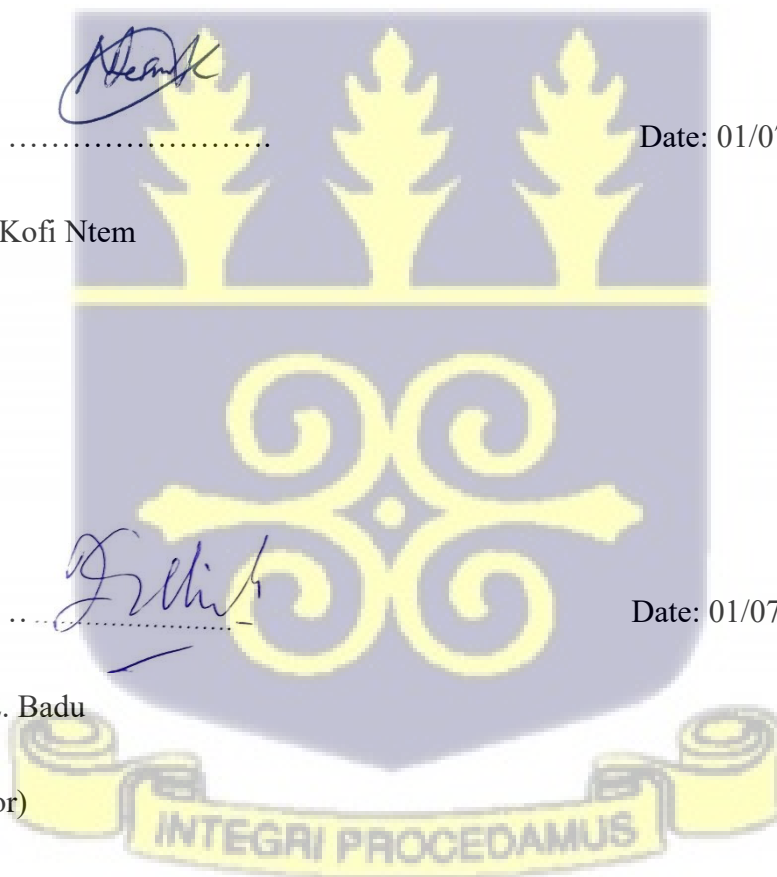
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DEDICATION

This work is dedicated to my father Mr. James Ntem for his sacrifices towards my education.



ACKNOWLEDGEMENT

I thank God Almighty for the grace and wisdom to reach this height in my academic journey. To my supervisor, Prof. E. Badu, I am most grateful for your tireless support and attention in making this work a reality.

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Finally, to the MA. Information Studies class of 2024, Mr. Franklin Owusu, my friend and sister, Joshline Owusu Appiah, and Fatomatu Carey, I appreciate your time and effort in making this work possible.

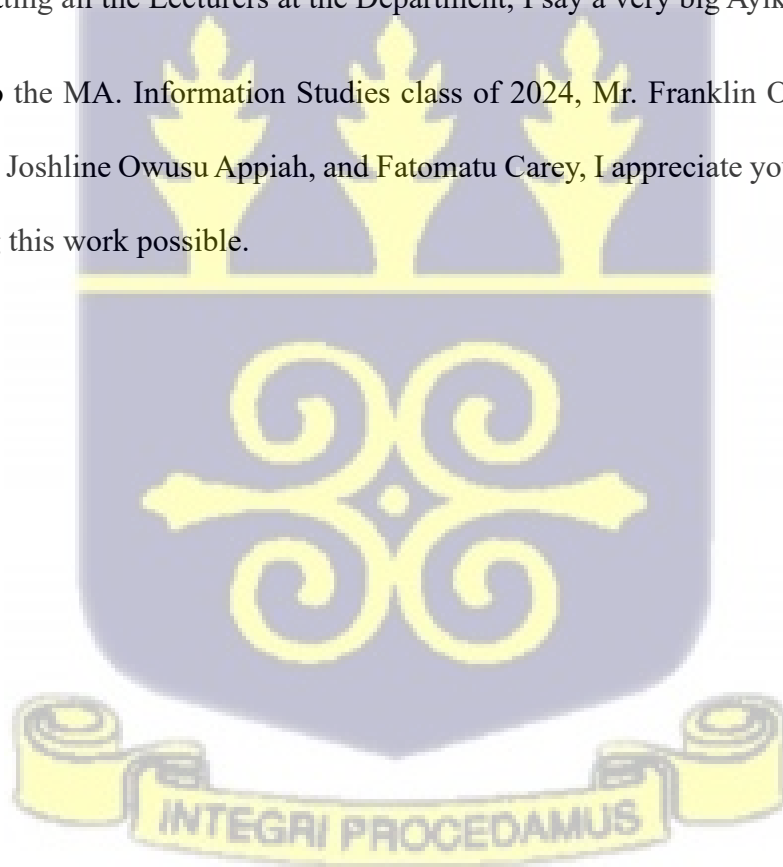


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LIST OF ACRONYMS AND ABBREVIATIONS

3D	Three-Dimensional
ATU	Attitude Toward Use
BIU	Behavioral Intention to Use
CARLIGH	Consortium of Academic and Research Libraries of Ghana
CD-ROM	Compact Disc Read-Only Memory
CHAG	Christian Health Association of Ghana
CINAHL	Cumulative Index to Nursing and Allied Health Literature
E-BOOKS	Electronic Books
EIR	Electronic Information Resource
ER	Electronic Resources
GAHS	Ghana Adventist Health Service
GTEC	Ghana Tertiary Education Commission
ICT	Information and Communication Technology
INASP	International Network for the Availability of Scientific Publication
MARC	Machine-Readable Catalogues
MOU	Memorandum of Understanding
NAC	Nurses Assistant Clinical
ND	Nutrition and Dietetics

NMTC	Nurses and Midwifery Training College
OPAC	Online Public Access Catalog
PEOU	Perceived Ease of Use
PU	Perceived Usefulness
RGN	Registered General Nursing
RM	Registered Midwifery
SDA	Seventh-day Adventist
SPSS	Statistical Package for Social Science
TAM	Technology Acceptance Model
TRA	Theory of Reasoned Action
UCC	University of Cape Coast



ABSTRACT

The explosion of information and communication technologies is transforming the landscape of academic libraries, shifting from traditional brick-and-mortar and print-based resources to electronic formats. This study examines the awareness and use of electronic resources among students of the Seventh-day Adventist Nursing and Midwifery Training College, Asanta, Ghana.

This study employs the Technology Acceptance Model (TAM) as its theoretical framework and adopts a positivist paradigm, utilizing a quantitative survey research design. Data is collected using a questionnaire instrument from a sample size of 289 students, determined by Yamane's formula, and analyzed using SPSS. Samples from the three respective academic levels are drawn using stratified random sampling.

The study discovers that majority of students are aware of and use electronic resources provided by the college library predominantly for research purposes. Their attitude towards the use of electronic resources is positively demonstrated by their preference for e-resources over print materials due to the convenience and ease of use of ER. Despite the challenges of slow internet access coupled with the erratic power cuts which suppress access and use among some students, majority of them acquiesce to having the needed skills to effectively use electronic resources. The study proposes recommendations that touch on training, awareness creation, expansion of network infrastructure, and access to electronic resources with adequate coverage and scope to address the challenges discovered.

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Study

The advent of information and communication technology has propelled a structural evolution within libraries, tearing down the traditional setup for information collection, storage, and retrieval. In the contemporary information landscape, libraries have begun, in addition to the conventional print materials, acquire a diverse array of electronic resources (ER), including electronic books, CD-ROMs, electronic journals, and online databases for storage and dissemination to meet the information needs of users. This revolution has transformed libraries into a virtual infosphere, enabling users to access information remotely. Consequently, this transformation has initiated a recalibration of the methods used to gather, store, and disseminate information by libraries (Hewitson, 2002).

The integration of electronic resources into libraries gained prominence during the mid-1960s, which was characterized by the use of Machine-Readable Catalogues (MARC). This marked the experimental stage for electronic catalogues, indexes, abstracts, and full-text databases operated by librarians on mainframe computers. However, this development was envisioned by Vannevar Bush in 1945 by conceptualizing a memex machine that could use microform technology to store and disseminate information to people across different places simultaneously. The subsequent decades, notably from the 1970s through to the 1990s, witnessed a technological bubble burst, bringing forth a sequence of innovations in electronic resources in libraries. Key developments included

accessing digital resources on CD-ROMs, launching of online reference databases by Dialog and LexisNexis, and the proliferation of internet web-based access to electronic materials. Contemporarily, accessibility and use of ER have experienced exponential growth, making it easy to use ER over mobile devices and cloud computing facilities (Shidi & Uganneya, 2014).

Globally, the acceptance and use of electronic resources by patrons of academic libraries exhibited a heterogeneous pattern across nations, largely influenced by available information technologies and financial resources. Miller, Nutting and Baker-Eveleth (2013) cited a sales report from the Association of American Publishers, indicating that by 2012, readers in the United States of America (USA) demonstrated a great preference for electronic resources over print materials. During this period, the sale of adult e-books increased by 49.2%, while the sale of e-books for children and religious groups increased by 475% and 151%, correspondingly. This changeover inadvertently led to the folding up of numerous print newspapers and bookshop operators. In contrast, Ghana did not experience comparable growth in the use of ER during this period (2012). However, in recent years, the use of ER in Ghanaian academic libraries has shown massive improvement. This growth can be ascribed to the support by Ghanaian academic libraries to create a comprehensive ecosystem of electronic resources through the initiative of the International Network for the Availability of Scientific Publication (INASP), the institution of the Consortium of Academic and Research Libraries of Ghana (CARLIGH) in providing subscription-based access to electronic databases, and the digitization effort undertaken by academic libraries in the country (Ankrah & Atuase, 2018).

Electronic resources encompass information available and accessible in electronic formats, using Information Communication Technology (ICT) infrastructure such as the internet, computers, CD-ROMs, and related digital network tools. Electronic resources comprise a variety of print surrogates (made-digital) and born-digital information materials. The scope of electronic resources continues to expand, leading to an update to earlier developed sources with the introduction of modern ones such as electronic databases (including institutional repositories), electronic journals, online public access catalogues, electronic books, electronic reference sources, webpages, web conferencing, and internet radio (Ani, Ngulube, & Onyancha, 2015; Shidi & Uganneya, 2014).

Academic libraries undoubtedly play a pivotal role in the collection, organization, and storage of information for effective use by patrons. As a functional operation, their role extends beyond the instructional role in academic institutions to encompass evaluation, selection, acquisition, organization, and implementation of access to ER. Academic libraries also offer research support, facilitate user access to appropriate information materials, and preserve a vast collection of academic information materials. Hence, the role of providing access to information embodies one of the core functions of academic libraries in general, where they can extend information access both within and outside the walls of their physical collection to their users. According to Marasinghe, Weerasooriya and Rathnabahu (2023) this has significantly impacted library operations by ensuing variations in the delivery of real-time and unlimited access to information resources and services by users.

Namugera (2017) pointed out a growing concern about the obscurity of services provided by academic libraries to many users, which is attributed to factors such as inadequate communication and interaction between library staff and users, in conjunction with the failure of libraries to aptly apply marketing strategies in promoting their services. Jotwani (2014) defined marketing as a crucial approach to increase the awareness and use of ER among library patrons. This enables libraries to identify their users, ascertain their information needs, and determine the best methods to use to satisfy their peculiar information needs. To execute this process effectively, libraries must ensure organized planning and execution of the concept of awareness creation, promotion, and distribution of resources and services in meeting its operational objectives.

The Seventh-day Adventist Nursing and Midwifery Training College library is one of the modern libraries within the Ellembelle district of the Western region of Ghana. In 2021, the library did a comprehensive renovation, enhancing its physical infrastructure and resource collection. Also, several open-access databases were added to complement the existing collection of e-books and CD-ROMs. The college is currently reviewing future library resource expansion programs, which include the signing of a memorandum of understanding (MOU) with the University of Cape Coast (UCC), which will allow students and staff of the College to access a vast collection of electronic resources through UCC's off-campus access.

Given that no studies have been done to determine students' awareness and use of electronic resources in Asanta and the Ellembelle district, this study seeks to fill in the

scholarly gap and inform policy and decision-making toward the implementation of full open-access and subscription access to academic electronic resources.

1.2 Statement of the Problem

The paperless society championed by information communication technology has brought about changes in the medium of information, manifested in the increasing visibility of electronic resources that complement paper-based materials. Regardless of the effectiveness of electronic resources in ensuring efficiency in the access, storage, and dissemination of information, findings by Ankrah and Atuase (2018); Ebijuwa (2018); Tlakula and Fombad (2017) showed a low level of awareness and use of ER among students. According to Baayel and Asante (2019) and Chanda (2021) just a slight majority of students, 54.5% and 52.81% respectively, were aware of electronic resources.

According to Singh (2020), academic libraries allocate substantial financial resources to acquire extensive collections of electronic resources for their user communities. Surprisingly, this significant investment often does not yield commensurate returns, as evident by patrons' low demand and use of e-resources. Singh attributes this to inadequate ER marketing by libraries, coupled with limited electronic resources subscriptions, resulting in little to no user satisfaction. Which consequently affects the awareness and use of these resources. Furthermore, the challenge of poor search techniques on the part of users as reported by Mwantimwa (2017) also contributes to the low access rate of ERs by students.

The issue of students' over-reliance on lecture notes and slides at the expense of using electronic resources has been of major concern to academic institutions (Scott & Husain, 2021), including the population selected for this study. The Academic Board of SDA NMTC Asanta in 2023 identified that the poor academic performance of students was partly due to their over-reliance on lecture notes and handouts. The Academic Board discussed the need for students to make effective use of electronic resources and other library resources to augment what tutors provide in class. This practice limits students' exposure to and use of available e-resources, thereby preventing the development of competent and autonomous learners. Ultimately, this results in superficial learning strategies that prioritize the passing of examinations over comprehensive understanding. This provides a troubling mismatch to libraries' mission of making high-quality academic e-resources accessible to the public. To enhance educational experiences and results, strategies are required to motivate students to make greater use of electronic resources provided by libraries for autonomous, inquiry-based learning (Larson & Owusu-Acheaw, 2016).

In light of these circumstances, this study was carried out to address the gap in several past studies including those by Vanik and Gamit (2022); Baayel and Asante (2019); Soni, Gupta and Shrivastava (2018); Shehu and Idakwo (2017) who primarily focused their attention on awareness of ER among students in the universities, particularly in universities already equipped with the best infrastructure for e-resources. By focusing this study on one of the many colleges in the country that is investing in electronic resources, the study aims to provide insight into the situation within this specific context, thereby assisting in addressing this deficiency in literature while contributing to the pool

of knowledge, especially at a time when training colleges are making substantial investments in developing robust electronic resource infrastructure.

1.3 Purpose of the Study

This study examined the awareness and use of electronic resources among students of the Seventh-day Adventist Nursing and Midwifery Training College in Asanta (SDA NMTC, Asanta), Ghana.

1.4 Objectives

The specific objectives of the study are to:

1. determine the awareness of electronic resources among students of SDA NMTC Asanta, Ghana
2. find out about the use of electronic resources among students of SDA NMTC Asanta, Ghana
3. determine the attitude and behaviour towards the use of electronic resources among students of SDA NMTC Asanta, Ghana
4. find out about the ease of use of electronic resources among students of SDA NMTC Asanta, Ghana
5. find out the challenges encountered with the use of electronic resources by students of SDA NMTC Asanta, Ghana
6. determine the level of satisfaction derived from the use of electronic resources among students of SDA NMTC Asanta, Ghana

1.5 Definition of Terms

Electronic resources: Information materials that guarantee users remote access and use with the help of a computer device with or without the internet (Burhansab, Batcha & Ahmad, 2021).

Internal validity: The ability of a researcher to demonstrate that it was an independent variable that affected the dependent variable.

External validity: The ability to generalize the result of the research or the generalizability of the research results.

Reliability: The ability of different researchers to conduct the same research in different places, times, and contexts while producing the same results.

Objectivity: Research into phenomena without the researchers contaminating their perception or the understanding of their results.

Closed Access: Electronic information resources that have restricted access subject to a subscription.

Open Access: Electronic information resources that can be obtained and used free of charge without any form of subscription.

1.6 Scope of the Study

The study was conducted at the SDA NMTC Asanta, with a focus on all students across various academic levels (100, 200, and 300). Primarily, to determine students' awareness and use of ERs provided by the college library and other open-access resources available to the academic community. The awareness of ERs component of the study includes

indicators that measure the general awareness level, type-specific awareness, awareness distribution across all academic levels, and awareness of multiple ERs. The usage component of ERs also encompasses indicators that measure the rate of ER utilization, utilization patterns across all levels, duration of use, purpose of use, and factors contributing to the non-use of ERs. Additionally, the study incorporates indicators measuring students perceived ease of use, attitude, and behavioral intentions toward ERs use, challenges, and satisfaction with ERs utilization.

1.7 Brief Study Setting

The SDA NMTC Asanta, Ghana is strategically positioned, forming part of the key communities in the Ellembele district of the Western region of Ghana. The College holds membership in both the Ghana Adventist Health Services (GAHS) and the Christian Health Association of Ghana (CHAG). Established in 2007, the college maintains an affiliation with The Kwame Nkrumah University of Science and Technology, with the primary objective of training medical professionals in nursing and midwifery who are dedicated to excellence and professionalism.

The college has a student population of one thousand and forty-two (1042) with 90% of students being females. There are four academic programmes offered by the college comprising of diploma in Registered General Nursing (RGN), a diploma in Registered Midwifery (RM), a diploma in Nutrition and Dietetics, and a certificate in Nurse Assistant Clinical (NAC), all accredited by Ghana Tertiary Education Commission (GTEC).

1.8 Theoretical Framework

This according to Grant and Osanloo (2014), is a “blueprint” and “guide” to support a study that is grounded philosophically, by providing a structure to define the epistemology and methodology of the study. Also, Adom, Hussein and Agyem (2018); Mensah et al. (2020) discussed that the theoretical framework situates a study in a theoretical construct by explaining the path of the study, purposely to make research findings meaningful and at the same time conforming to the theoretical constructs in the study. This study used the Technology Acceptance Model (TAM).

1.8.1 Technology Acceptance Model (TAM)

The acceptance and use of modern technology in organizations offer the potential for high productivity and increased satisfaction; nevertheless, this is dependent on the ease of use and users’ willingness to adopt and use changes offered by new technologies. This study used the Technology Acceptance Model (TAM) as proposed by Davis in 1989 in a doctoral thesis to explain and predict user acceptance and behaviour toward new technology. The TAM stems from the “psychological Theory of Reasoned Action (TRA).” And theorizes that two main factors influence users’ intention to use technology, the perceived usefulness and perceived ease of use, which in turn predict users' actual usage behaviour. Since its advent some thirty-seven (37) years ago, the TAM has developed to become a fundamental model in comprehending the factors leading to users' conduct in line with the acceptance or rejection of information technology (Granić & Marangunić, 2019; Venkatesh et al., 2003; Venkatesh & Davis, 2000; Davis, 1989).

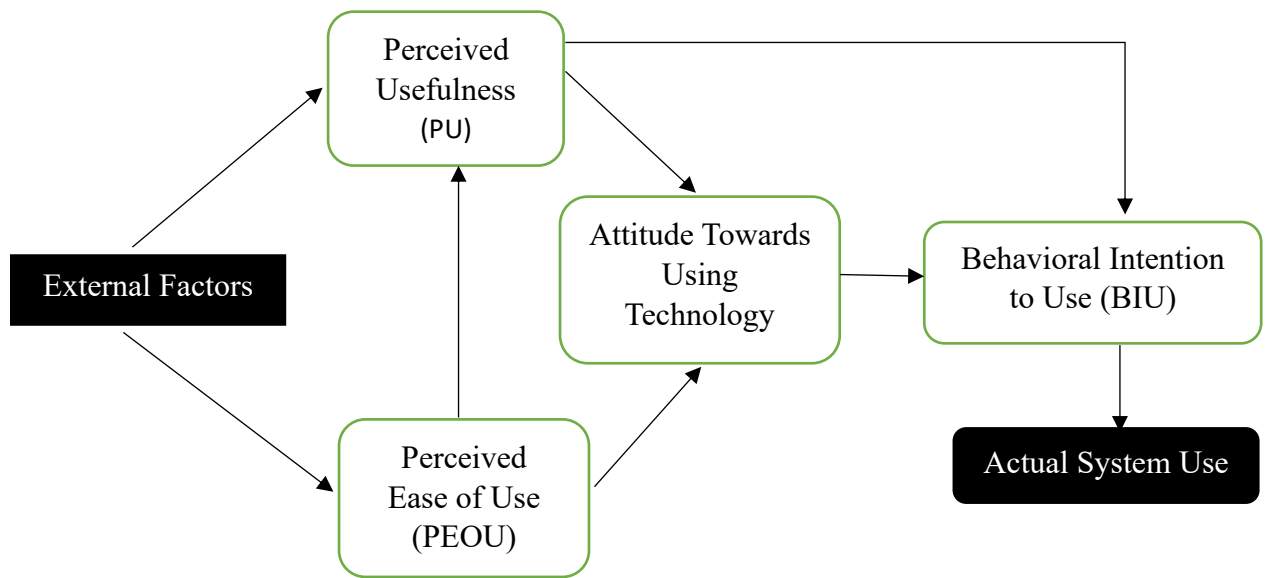


Figure 1.1: Illustration of the Technology Acceptance Model (Davis, 1989)

TAM features the following key constructs:

The first (1) construct, which is the perceived usefulness (PU), identifies the degree to which a user believes that using a specific system will boost the productivity or performance of their job. It measured the degree to which students of SDA NMTC Asanta trust that using electronic resources will offer a wide array of access to seamless academic materials, which will positively impact their knowledge acquisition. This was done by asking students to assess their rate of satisfaction derived from using e-resources concerning availability and accessibility.

Perceived ease of use (PEOU) is the next construct, which identifies the degree to which users expect that using technology will be free from effort. This assessed the degree to which students of SDA NMTC Asanta can effortlessly access electronic resources. There

was probing into the search strategy skills, knowledge of the various sources of ER, and usability of electronic resources to determine the PEOU among students.

The third (3) construct, Attitude Towards Use (ATU) measures the feelings demonstrated by users about their willingness or unwillingness towards using a new system. This recorded the opinion of students of SDA NMTC Asanta on the use of electronic resources in ascertaining whether they could locate the right information, spend less time accessing information, and their feelings about satisfaction derived based on their information needs.

The fourth (4) construct Behavioral Intention to Use (BIU), points out the user's preparedness to use an information system. The researcher asked whether students of SDA NMTC Asanta used e-resources more often and showed their preferences when choosing between paper-based and electronic resources.

The last (5) construct, the Actual System Use, shows the degree of real use of the system. It was used to find out how frequently it is used, alongside students' level of dependence on e-resources compared to print materials. The TAM theorizes that these constructs impact a user's intention to use a system, serving as the main determinants for actual system usage. (Davis, 1989; Venkatesh & Davis, 2000; Venkatesh et al., 2003).

This model has shown unique validity and effectiveness as confirmed by multiple studies (Al Kurdi, Alshurideh, & Salloum, 2020; Albayati, Kim, & Rho, 2020; Granić & Marangunić, 2019; Salloum et al., 2019). Results from these scholars show a strong relation with the objectives of this study on how the various constructs of the TAM

significantly influence attitudes toward the use of new technology, and how they are applied in adopting technology in educational contexts.

1.9 Significance of the Study

This study addresses significant policy needs by providing both external and internal policymakers of the college with valuable information about students' awareness and use of ER, to inform them of the kind of strategic decisions to take in expanding the college's electronic resource collections.

Also, this study augments the already existing pool of knowledge in the field by serving as an avenue for future scholarly investigations that will expand existing knowledge and generate new insight into this field of study.

Finally, the findings from this study showed that majority of students were confronted by challenges stemming from inadequate ER coverage and scope, poor internet connectivity, and erratic power cuts. Despite their preference for ER over print materials. This provides practical directions to managers of the academic library to develop strategies to promote and sustain the awareness and use of available ER among its patrons and build library collections. By using the data on the attitude and behaviour towards the use of ER, managers can determine the preferences of students in selecting and acquiring print and electronic resources for the library.

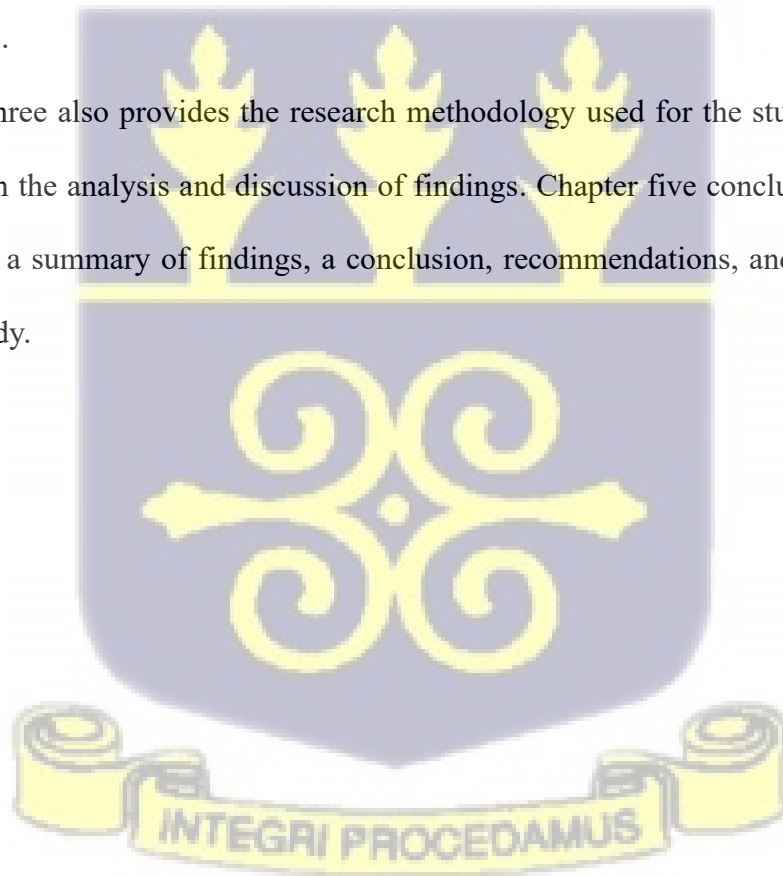
1.10 Organization of the Study

The study was grouped into five main chapters.

Chapter one includes the introduction and provides an overview of the study. It encompasses the background of the study, Statement of the problem, Purpose of the study, Objectives of the study, Definition of terms, Scope of the study, Brief study setting, Theoretical framework, and finally the Significance of the study.

Chapter two provides a thorough presentation of relevant literature organized thematically around the theoretical framework underpinning the study and research objectives.

Chapter three also provides the research methodology used for the study. Chapter four focuses on the analysis and discussion of findings. Chapter five concludes the study by providing a summary of findings, a conclusion, recommendations, and suggestions for future study.



CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

Ideal research paper must be firmly anchored in extant literature, providing researchers with the opportunity to corroborate or present contrasting perspectives about other scholarly works on a particular academic topic. The importance of this section in any academic presentation cannot be overstated; it forms a core and critical part of every academic dissertation, journal article, and thesis and helps to build a robust conceptual and theoretical foundation for the topic under investigation, thereby providing a link between existing and current scholarly works (Chigbu, Atiku, & Du Plessis, 2023; Shah, Ahmed, & Khan, 2018).

This literature review focused on the following sub-headings guided by the theoretical framework adopted by the study.

1. Electronic resources in educational institutions in Africa and Ghana
2. Awareness and use of electronic resources in educational institutions
3. The awareness and use of electronic resources among students in educational institutions
4. Ease of use of electronic resources by students
5. Perceived usefulness of electronic resources in educational institutions
6. Challenges to the awareness and use of electronic resources in educational institutions

2.2 Electronic Resources in Educational Institutions in Africa and Ghana

Electronic resources (ERs) according to Jogan (2015) are systems for storing and retrieving information electronically over a computer system. These resources include OPAC, E-journals, online databases, CD-ROMs, E-books, and internet resources. Burhansab, Batcha and Ahmad (2021) also defined electronic resources as information materials that can be accessed locally or remotely using a computer.

Over the years, information resources have witnessed a significant shift from traditional paper materials to digital or electronically readable documents. Primarily due to advancements in information technology. Makgahlela and Bopape (2014) observed that the academic discourse community in Nigeria is progressively transitioning towards the use of electronic materials especially for research purposes. This shift aims to provide and increase global access to information while improving speed and facilitating simultaneous access to information by students and faculty. However, despite providing most colleges and universities with internet access, the challenges brought by the digital divide continue to constrain students in accessing electronic information materials.

A study conducted by Mwamasso and Onyango (2020) in Tanzania highlights the surging popularity and developing interest in electronic resources among students. In line with the study, the currency of electronic resources compared to print materials was the driving force behind the positive attitude towards the use of ER. Also, ICT literacy skill development plays a significant role in empowering students to use more of ER. The authors posited that “old libraries” in developing countries are becoming obsolete due to students' interest in e-resources, this however is arguably an overstatement. Most of these

libraries play key roles in digitizing print materials and making them accessible over digital mediums, libraries equally champion the course of offering training on how best to identify and use electronic resource collections.

Tlakula and Fombad (2017) observed that educational institutions in South Africa have made concerted efforts to improve ICT and internet access as the basis for implementing access to ERs. However, these initiatives have not yielded the expected outcome, as most students, according to their investigation, lacked basic information literacy skills. Equally, Okite-Amughero, Makgahlela and Bopape (2014) revealed that students' awareness of ER correlates inversely with optimal use, as a result of erratic power cuts, slow bandwidth, and deficient information-searching skills. According to Ademola, Obukowho and Emuejevoke (2015) ERs are invaluable tools for study in academic libraries with the potential to greatly impact the performance of undergraduate students. The authors cited that this can only be achieved when libraries invest in ICT and train and equip patrons with information literacy skills. These findings collectively highlight a critical paradox in the implementation of ER within educational institutions. While ICT infrastructure continues to expand, the students' capacity to effectively use these resources remains inadequate. This suggests that a mere improvement in ICT infrastructure is insufficient to guarantee the successful adoption and use of ERs among students. Also, these studies identify the interplay of multiple challenges and how this collectively creates the ERs implementation and utilization gap. Drawing from this, the researcher's perspective suggests that, for a successful electronic resource program, a holistic approach is required to address both the pedagogical and technological dimensions simultaneously.

Access to ER in academic libraries of colleges of education has gradually seen a surge amidst funding challenges. With the partnership of colleges directly in e-resource subscription or through other institutions such as the Consortium of Academic and Research Libraries in Ghana (CARLIGH), several ERs, both open and closed access, have been made available to students to support their academic work. The University of Ghana and the University of Cape Coast are among the key players who, through their efforts, have offered remote access to ERs to several affiliated colleges of education (Ankamah, Gyesei, & Amponsah, 2022).

Numerous research studies have been conducted regarding the accessibility and availability of ER in Ghanaian educational institutions. Dukper, Sakibu and Arthur (2018) conducted a survey at the Tamale Technical University in the Northern Region of Ghana and found that while the institution had subscribed to various ERs, such as e-journals, e-books, and online databases, the level of awareness, access, and utilization remained relatively low among only 16% of the population. This finding is corroborated by Yamson, Appiah and Tsegah (2018) who reported similar findings that, notwithstanding the availability of ERs, many students in colleges still depended on print materials. These studies show a continued disconnect between investment in ERs by educational institutions and actual use within the context of higher education in Ghana. The 16% utilization rate among the student population at the Tamale Technical University, Ghana, despite the huge investment in ERs, suggests that availability does not automatically lead to utilization. The researcher suggests that, coupled with resource procurement, there is a critical need for a comprehensive change in strategy by library management to address, in addition to the technological challenges, the behavioural, support mechanisms, and

institutional culture gaps that exist in ER provision and usage pattern among students in educational institutions in Ghana.

2.3 Awareness and Use of Electronic Resources in Educational Institutions

The relationship between awareness and the use of ER remains a subject of academic debate, which has produced conflicting findings from multiple studies. Norch and Adzakpa (2022) posit that increased awareness of ER has no direct link with usage. Suggesting that the awareness of ER does not necessarily guarantee increased utilization. Contrary to this, other schools of thought hold the view based on research findings that increased awareness resulted in the increased use of ER, as discovered by Atinmo and Isiaka Amusa (2016); Tripathi, Sonkar and Rajbanshi (2016). These opposing findings by these scholars suggest that there is a more complex relationship between awareness and utilization of ERs. The researcher has the view that awareness of ER is necessary, but this is not a sufficient requirement for adequate ER usage. Awareness may create the needed foundation for potential usage, but other mediating factors need to be considered, such as ease of use, accessibility, adequate technological infrastructure and institutional support.

According to Akpojotor (2016) awareness is knowing about the existence of specific information manifested through a particular behaviour. A study by Yebowaah and Plockey (2018) revealed that even though 65% of respondents knew about ER, this did not positively manifest in their use, as only half (32.5%) the percentage of those aware used ER provided by their institution. This also affirms the findings by Buer (2011) where awareness of various types of ER consistently outpaced their actual use. Gaikwad (2017)

also identified disparities in awareness and use of ER across different educational levels. Showing that post-graduate students demonstrated more awareness and use of ER compared to undergraduate students. Primarily this is attributed to the increased dependence of postgraduate students on electronic resources for their research. The recurring pattern of awareness surpassing utilization of ERs across multiple studies points to a fundamental gap in rolling out electronic resource programs. This indicates a critical gap on the part of library managers to effectively translate passive knowledge of ER into active adoption. This also emphasizes that, a sole reliance on awareness campaigns as an interventive program is inadequate to yield the required usage pattern among students. The different usage patterns between undergraduate and postgraduate students further reinforces how significant research intensity and academic need can propel ERs engagement among students. This closely points to the fact that ER utilization goes far beyond availability to include perceived relevance and academic necessity.

A study conducted by Osinulu (2020) to assess awareness and use of ER among College of Health Science students in Olabisi Onabanjo, Nigeria, showed that 13.8% of students had a high level of awareness compared to 36.8% and 49.8% who had moderate and low levels of awareness respectively. This level of awareness correlates with usage of which 36.21% expressed not to have used any of the ER offered by the College, even though 24.71% used it occasionally. Similarly, Baayel and Asante (2019) discovered from the awareness and use of ER offered by an academic library in Koforidua that 54.5% of students have only heard of ER, 27.5% have heard and used ER, and 18% have neither heard nor used ER. The study by these researchers demonstrates a worrying concern, especially in health sciences, where access to current, and evidence-based information is

considered critical for the provision of care and professional development. This, however, calls for an intensive training and awareness campaign by information professionals specifically tailored to health science students, to address their academic and professional information needs.

The disparity between awareness and use of ER according to Soni, Gupta and Shrivastava (2018) can be attributed to factors such as inadequate support of students by library staff, irregular orientation on ER awareness programs in libraries, poor ICT infrastructure in libraries, inadequate user computer literacy skills, and user preference for print materials over ER. These factors contribute to a gap where students lack awareness of the various types of electronic resources (ER) in the library and hence do not use them or are aware that these electronic resources exist but lack the necessary skills and technology to access and use them. It can be inferred from the above that the awareness-usage gap is a multidimensional problem requiring a systematic intervention to address. Because addressing one challenge in isolation could lead to the emergence of another. Also, the persistent preference for print materials despite the availability of ERs shows an entrenched academic and cultural practice among students. This requires a coordinated effort from all academic stakeholders, including human capacity development and an upgrade in technological infrastructure.

The use of ER, according to Ankrah and Atuase (2018), is heavily dependent on computer literacy skills, even when ER is made available and awareness is high. The ability of students to effectively exploit ERs goes together with possessing the right or minimal computing skills, with three basic components: Having a basic understanding of

computing principles and knowing how to work with specific operating and application software. In support, Osinulu (2020) posited that the desire by students to use ER is often constrained by poor internet connectivity coupled with erratic power cuts. The findings underscore the importance of technological competencies as a prerequisite for effective ER utilization. This suggests that educational institutions should invest in digital literacy programs to promote capacity building in addition to the provision of ERs.

2.4 The Awareness and Use of Electronic Resources Among Students in Educational Institutions

Nursing and midwifery students increasingly rely on electronic resources to help with their coursework and to develop skills for evidence-based practice. Electronic resources, specifically e-books, have become a routine in their discipline. Nevertheless, the integration of electronic resources as a learning tool has faced some challenges. A focus group study on student midwives by Appleton (2004) revealed mixed perceptions about the ease of use and benefits of e-books compared to print materials. Even though students appreciated the remote access and focused search capabilities of e-books, they found it challenging to navigate and download. Faced with these challenges, students expressed a preference for print books and a desire for interactive features such as video clips and three-dimensional (3D) anatomy models in e-books. The study also highlighted the need for effective training, promotion, and integration of electronic resources (e-books) into remote learning environments to facilitate acceptance and use among nursing and midwifery students. The study suggests that while students recognize the functional benefits and advantages of ERs, usability challenges create a critical barrier that prevents effective adoption of ERs. To satisfy the evolving technological information needs of

health students, educational institutions must make a concerted effort to subscribe to discipline-specific ERs that align with visual and practical learning needs, such as 3D anatomy models and other interactive educational features.

A study by Osinulu (2020) at the Obafemi Awolowo College of Health Sciences in Nigeria revealed a low level of awareness among students regarding the availability of ER like e-books, e-journals, databases, and theses/dissertations in the library. Despite the availability of these ERs, most students were not aware of their existence, which led to low exploitation. The study also showed that most students used ER predominantly for research and completing assignments. However, the frequency of use was low, with more than a third of students never using the resources. Inadequate provision of computers, poor network, erratic power cuts, and slow internet were among the challenges identified to be hindering the effective use of electronic resources. Also, Singh and Mahapatra (2016), who corroborated their findings with other studies, such as Dee and Stanley (2005), concluded that nursing students showed less approach towards the use of ER. They indicated that ER, specifically PubMed, CINAHL, and Meline, were mainly used for research and teaching purposes. The correlation of findings as expressed in the multiple studies above points to a systematic underutilization of ERs in health science educational institutions, particularly in developing countries. This is very alarming, considering the negative impact it could have on the training of future healthcare professionals for evidence-based practice, in a world that increasingly relies on ERs.

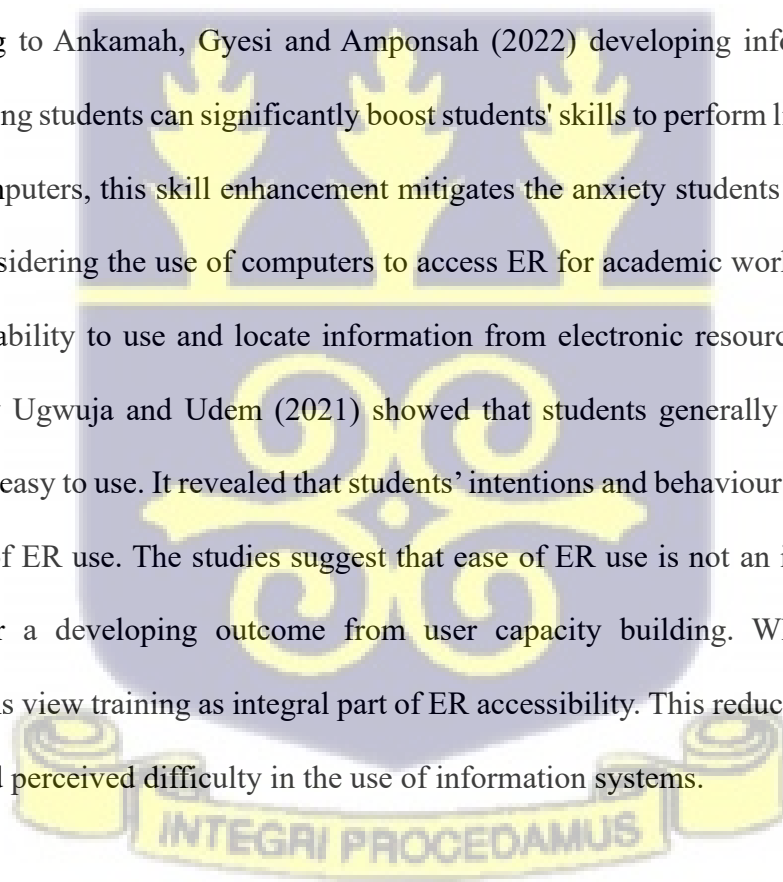
2.5 Ease of Use of Electronic Resources by Students

The ease of ER use is a major justification that students will use an electronic resource. Students are often discouraged from adopting useful ER when there is difficulty in using them and the skills and resources required to locate and retrieve information are lacking. Ease of use of ER is justified when ER are flexible to interact with, easy to learn and the skills needed for minimum use acquired (Adetunla, 2016). Kennedy and Adetoun (2021) and Cln (2017) shared similar thoughts when they noted that students will be comfortable using ER when they find them easy to use. In their study Kennedy and Adetoun (2021) mentioned that a positive correlation existed between ease of use of ER and usage of ER, with a p-value < 0.05 showing a significant correlation between the two variables. It can be deduced from the studies that actual use of ER is driven by ease of use, this is further emphasized by the findings by Kennedy and Adetoun (2021), demonstrating that, the relationship between ease of use and actual use is not merely anecdotal but one that is empirically substantiated. This suggests that investing in user-friendly ER, conducting regular training for students and integrating ER technological infrastructure into mobile devices and easy to use web-based platforms would make the use of ER very effortless for students.

Using the Technology Acceptance Model (TAM) by Davis (1989) to assess library EIR use among undergraduate students of Leads City University in Nigeria, Adeoye and Olanrewaju (2019) discovered that 36% and 22% of students strongly agree and agree respectively that they get confused, frequently make errors, get frustrated, have to always consult the user manual, and find it cumbersome when using ER of the library. The perceived ease of use construct of the TAM, according to Davis (1989) specifies the

ability of users to find a particular system effortless to use. Portz et al. (2019) expanded this concept within the same context by arguing that ease of use or PEOU is dependent on students' "level of computer anxiety and computer self-efficacy." The former term, as used in this context, is the fear exhibited by students to use computers, while the latter is the ability of students to locate information. The studies suggest that these difficulties, as put forward by Portz et al. (2019) represent a deeper psychological barrier which requires both building user competences and confidence in the use of computers, while improving system designs to make ER user-friendly and interactive.

According to Ankamah, Gyesi and Amponsah (2022) developing information literacy skills among students can significantly boost students' skills to perform literature searches using computers, this skill enhancement mitigates the anxiety students often experience when considering the use of computers to access ER for academic work. This facilitates students' ability to use and locate information from electronic resources easily. Also a survey by Ugwuja and Udem (2021) showed that students generally found electronic resources easy to use. It revealed that students' intentions and behaviour largely influence the ease of ER use. The studies suggest that ease of ER use is not an intrinsic property but rather a developing outcome from user capacity building. Where educational institutions view training as integral part of ER accessibility. This reduces anxiety and its associated perceived difficulty in the use of information systems.



The ease of use of electronic resources by students majorly depends on the following.

Digital literacy: (Yo, 2021) defined this as having and applying the know-how and skills required to navigate the digital space and use electronic resources effectively. Ebijuwa and Oladejo (2023) opined that digital literacy positively impacts students' learning ability by equipping students with the requisite knowledge of search strategies and how to easily use electronic information resources. This was substantiated by their findings, where the null hypothesis of no significant relationship between digital literacy and ease of use and use of e-resources was rejected by a p-value of 0.001 where the correlation was significant at the level of 0.05. The study demonstrates how digital literacy contributes to develop strong digital competency in students, by making them sophisticated users of search strategies, which facilitates easy access and use of ER. Digital literacy is seen as an impactful intervention and an investment which can simultaneously improve ease of ER use while bettering the information retrieval skills of students across different resource platforms.

User Interface: The interface clarity, legible screen design and content, and ease of navigation of electronic resource portals are critical determinants of the ease of ER use. It was captured in the findings of Ramayah (2006) that students perceived electronic resources as easy to use when there is a high clarity of interface, better screen design, and page navigation. Cool (2000) also recounted that electronic resources specifically web-based systems with user-friendly interfaces allow users to take control of their search process, making it easy to access information at any time. It can be inferred from the studies that clarity, legibility and ability to navigate user infaces are non-negotiable

prerequisites for ease of use and actual use of ER. This places an emphasis on the prioritization of interface quality and usability alongside content quality as most comprehensive and informative databases may become valueless if students are unable to navigate them effectively.

Library Support and Training: Library engagement with students through orientation, webinars, and support does not only create the needed exposure for the available electronic resources in their collection but also equips students with the skills and knowledge to effectively use these ER with ease. Students who have been educated and trained to use ER by building upon their information literacy skills stand a better chance of finding ER easy to use as compared to those with no training or support (Thomas, 2021; Frandsen et al., 2017). The study by Thomas (2021) and Frandsen et al. (2017) position library support and training as critical success factors that develop user competency to be able to use the potential value in ER. This suggest that without adequate library orientation and support programs, even the well designed and carefully selected ER will remain underutilized. This therefore places a clarion call on libraries to conceptualize their role beyond resource provision to include capacity building.

2.6 Perceived Usefulness of Electronic Resources in Educational Institutions

The determinants of perceived usefulness are critical to the success of any information system, often serving as the fulcrum that balances and propels actual system use (Yusoff et al., 2009). According to Alsabawy, Cater-Steel, and Soar (2016), the perceived usefulness of information systems determines how beneficial these systems are to

stakeholders and serves as a key measure of system acceptance and success. They identified information quality and information technology infrastructure services as primary factors that enhance the perceived usefulness of information systems. The studies reveal that perceived usefulness serves as a measurable construct that hinges on key system characteristics and operational efforts. Educational institutions must therefore not focus mainly on subscribing to ER but also prioritize investment in technological infrastructure and tailored educational campaigns, which can support adequate use of ER.

A study by Sritharan (2018) revealed that more than half of the participants expressed satisfaction with the electronic resources (ER) provided by their library. This satisfaction was attributed to awareness of ER availability, reliable internet access, and comprehensive user education and support programs designed to facilitate easy access to resources. Similarly, Yusoff et al. (2009) found a significant positive relationship between perceived usefulness of ER and actual use of information resources. They argued that perceived usefulness promotes ER utilization, which subsequently supports the effectiveness and efficiency of academic and research activities within educational institutions. Their findings demonstrated that students exhibited high levels of perceived usefulness regarding ER. The study by Sritharan (2018) demonstrates that user satisfaction with ER needs several requirements that reduce user effort, particularly comprehensive education and reliable internet access.

The satisfaction derived from ER use can be attributed to several interconnected factors. Primary among these is information quality, which encompasses relevance, accuracy, completeness, availability, clarity, reliability, and timeliness. Additionally, satisfaction is

enhanced by interactive and user-friendly interfaces, reliable internet connectivity, and comprehensive support services, including orientation programs. These factors collectively aim to reduce the effort required by users when accessing information from electronic resources, thereby improving overall user experience and satisfaction (Idkhan and Idris, 2023).

2.7 Challenges to the Awareness and Use of Electronic Resources in Educational Institutions

The use of ERs in higher educational institutions has increased exponentially over the past decade, owing to their usefulness in ensuring quick retrieval of information and their key role in bridging the information gap. Regardless of its importance, using ER comes with some challenges, such as computer illiteracy, lack of awareness, poor internet connectivity, erratic power cuts, and poor user search techniques (Ankamah, Gyesei, & Amponsah, 2022; Jotangia, 2020). It can be deduced from the study that, while ER has seen some level of growth in higher educational institutions due to its usefulness in information retrieval, its utilization is hindered by multifaceted technological and competency barriers. There is therefore a need for educational institutions to make a parallel investment in electronic resources, by looking at both infrastructure and user capacity development. Since a holistic approach in dealing with these challenges is the most effective way to prevent suboptimal returns on access and usage of ER.

Vanik and Gamit (2022) pointed out that inability to search, information overload, difficulty in locating the right information, lack of support from library staff, and general time wasting in browsing ER were among the notable challenges commonly faced by

students in the use of ER. According to their findings, 31.03% of students reported having challenges in searching, and 25% faced the problem of information overload. Considering that Vanik and Gamit's findings were all centered on challenges with the use of ER, Adeoye and Olanrewaju (2019) discovered that in addition, 30% of students in a study confirmed they were not aware of ER provided by the school library, 34% also cited power cuts, and 67% identified slow internet access as factors impeding the use of ER. The study reveals very concerning barriers to ER use, pointing to the fact that the challenges preventing effective ER use among students stem from a shortfall in individual access skills, inadequate computer infrastructure, and communication gaps, which are far too enormous to be overlooked.

According to Ankamah, Gyesei and Amponsah (2022), expensive data coupled with low internet bandwidth are the two most common challenges bedeviling the active use of ER among students, resulting from poor infrastructure used in implementing and maintaining electronic resources. This was corroborated by Mawere and Sai (2018) when they outlined the issue of academic institutions not subscribing to bandwidth packages that can adequately meet the number of students. From the study, it can be inferred that internet connectivity serves as a critical component of access and the use of ER. Reliable and affordable internet is necessary for browsing and downloading information from ER for both academic and research purposes. Educational institutions, when selecting and subscribing to ER, must equally prioritize the speed and cost of internet made available to students.

A comprehensive descriptive survey by Armah and Cobblah (2021) across four colleges in Cape Coast revealed some challenges faced by students in their use of electronic resources. These challenges encompass weak internet connectivity, inadequate computers, access delays, and denial of resource portals. Also, the issue of hardware and software limitations was highlighted by Shehu and Idakwo (2017) as further compounding the infrastructure and technological deficits, preventing the use of ER in colleges across the country. Additionally, Ankamah, Gyesi and Amponsah (2022) identified poor user interface design of ER portals, surging prices of data, and lack of expertise in accessing electronic resources as some of the major limitations confronting students in accessing ER. It can be inferred from the study that the challenges of internet connectivity, computer infrastructure, and poor user interfaces are issues faced not only by educational institutions in Ghana, but also by other neighbouring African countries. This sheds light on the need for broader consultation and dialogue with key stakeholders in Ghana and other African countries to carve out a lasting solution to this shared challenge.

These challenges contribute greatly to the low use of electronic resources among students, which also prevents students from fully exploiting the benefits that electronic resources have in promoting effective academic work. According to Olajide & Folasade (2018); Ugwu & Orsu (2017); Karunarathna (2015) as cited by Alkhafaji and Samea (2020) these challenges must be addressed using proactive and proper intervention by academic institutions by providing adequate computers and internet infrastructure, subscribing to relevant e-collections, engaging in awareness programs and seeking the services of an electronic resource librarian. They also indicated the need for libraries to conduct

frequent workshops and tutorials to enhance the information retrieval skills of patrons. Also, Oyewo and Bello (2014) recommended that computer literacy training programs should be introduced to students, they emphasized the need for information professionals to encourage students to explore the various collections of ER for their studies. The study suggests a multi-pronged approach to addressing ER challenges. The collective emphasis on awareness programs, skills training, infrastructure development and specialized staffing (electronic resource librarian) indicates that successful ER implementation requires full institutional commitment across multiple operational areas. This indicates that educational institutions treating ER challenges as isolated problems rather than interconnected system failures are likely to achieve partial success, because the effectiveness of any individual intervention depends on complementary improvements in other areas.

Adeleke and Nwalo (2017) discussed that the use of ER is largely influenced by the availability of these resources as and when needed. They argued that making electronic resources available in different brands must be of great concern to libraries. They also identified the need for adequate budgetary allocation to address the perennial issue of power cuts to ensure 24-hour access to electronic resources. It can be inferred from the study that the availability of ER extends beyond just subscription to include reliable and continuous access conditions, which are upheld through the provision of adequate budgetary allocation to deal with access constraints and to provide diversified resource brands. It equally suggests that educational institutions must initiate 24/7 service programs when planning their ER infrastructure, to ensure that access is provided as and when needed, because sporadic access has the potential to significantly reduce resource

value and the reliability to satisfy students' information needs outside traditional library hours.

According to a study by Barfi, Boohene and Afful-Arthur (2016) at the University of Cape Coast. The setbacks faced by students in using ERs can be addressed by improving awareness creation, introducing students to information literacy skills, and providing adequate computer workstations and internet access to students. The study suggests three critical intervention areas which include awareness creation, information literacy development, and infrastructure provision. This joined approach points out that to effectively address ER utilization challenges, there must be simultaneous attention to cognitive (awareness and skills) and environmental (infrastructure) factors to be able to adequately solve the issues of user competence and technological capability in accessing ER.



CHAPTER THREE

3.0 METHODOLOGY

3.1 Introduction

This chapter provides a comprehensive account of the methodology used for the study. It includes research design, selection of cases, selection of subjects, instrumentation, validity and reliability of data, data collection and analysis procedures, and ethical considerations.

Research methodology according to Sileyew (2020) is a path that guides researchers on how to carry out their research through identifying a problem, formulating objectives and presenting of findings from the data collected. Also, according to Patel and Patel (2019) research methodology is a science and the study of how to conduct research systematically.

3.2 Research Paradigm

Understanding and communicating the assumptions about the nature of reality and knowledge generation forms a critical component of the research process. This depends on the researcher's ability to express his or her views on the underlying nature of the phenomena under inquiry, focusing on aspects that can be identified and evaluated, and the best processes for gathering accurate data. These foundational building blocks, which determine how investigations are organized and carried out, are referred to as "research paradigms" in the methodological discourse (Kivunja & Kuyini, 2017; Rehman & Alharthi, 2016).

Two main research paradigms grounded in philosophical viewpoints exist. They are positivism and interpretivism. This study adopted the former paradigm. Positivism rose to prominence during the early 19th century through the works of Auguste Comte. Positivism assumes that reality exists but it is independent of human or context free, such that reality can be known by systematically observing and studying data (Ibifuro, Omiete, & Chukwudi, 2022). It holds an objective epistemological position where researchers are seen as objective observers of a phenomenon who do not disturb what is being observed. With the belief that social phenomena are regulated by laws, the positivist applies scientific approaches to create laws that can be presented in factual statements through experimentation. This paradigm also revolves around the belief that for research to be considered a good and quality study, it must have, internal validity, external validity, reliability, and objectivity. Despite its wide use in academic research, the positivist paradigm has received criticism such as the inappropriateness of using scientific methods to study social phenomena and individuals (Rehman & Alharthi, 2016; as cited in Gage, 2007; Richards, 2003; Guba & Lincoln, 1994).

3.3 Research Design

Research design is the framework that identifies the methods and procedures used for data collection, analysis, and interpretation. It provides the researcher with a guide to investigate a particular problem of interest (Bouchrika, 2023). Also, research design according to Abosede and Onanuga (2016) is a plan that connects a study's conceptual problem to the empirical research in a comprehensive procedure or a strategy that reveals the solutions to the research question.

For this study, the survey research design was employed. According to Groves et al. (2009) a survey constitutes a systematic process of data collection from a subset of entities belonging to a wider population. Surveys make use of standardized procedures to select entities as well as gather and quantify information related to the attributes and opinions of the sample subjects, this allows inferences to be made regarding the dominant traits and views within the entire population. The numerical descriptions obtained from the responses of survey participants can therefore provide insights into the broader attitudes, attributes, and preferences held by the group from which those individuals were drawn.

The quantitative data collected through the questionnaire provided essential statistical evidence to support the study's findings. This approach facilitated the measurement of specific variables such as awareness levels, usage patterns, satisfaction rates, and challenges of ER usage across the student population. The quantitative data also enabled analysis using descriptive and inferential statistics, which provided quantifiable insights into student behaviours and preferences regarding electronic resources. Furthermore, this approach facilitated the identification of significant relationships between variables such as awareness and actual usage levels, user satisfaction levels, and challenges with ER utilization.

The researcher adopted the survey design because the population of this study was large. Therefore, obtaining responses from a selected majority, with the use of a survey enhanced both rapid turnaround time, and ensured a broad scope of access to generalize and make inferences about the broader population. Also, the survey was used because it

facilitates quantifiable analysis of data that helps in showing the trends and dimensions of e-resources used through statistical testing.

3.4 Selection of Case

The SDA NMTC Asanta was used as the case of investigation due to the proximity of the college to the researcher which facilitated timely access to research data. Also, serving as the only nursing and midwifery training college in the Ellembelle district of the Western region of Ghana, to have implemented a common electronic resource platform for students and staff, the selected case fell within the context of this study with a fair knowledge of the use of electronic resources. Moreover, no studies have been carried out in the district pertaining to this topic. The college since 2021 has provided students with electronic resources comprising of electronic books, CD-ROM, and open-access electron journals and databases which is a key requirement by the Ghana Tertiary Education Commission (GTEC) for accreditation of all tertiary institutions.

3.5 Selection of Subjects

The researcher provided a description of the population, sample size, and the sampling technique used in selecting student nurses, midwives, nutritionists and dietitians of the SDA NMTC Asanta.

3.5.1 Population

In fulfilling the quest for academic knowledge, the researcher collects data from subjects who are a group of people with one or more characteristics relevant to the investigation.

the population constitutes the entire set of people who have specific traits from which data is drawn to allow for generalization or offer a broader understanding of a given study (Casteel & Bridier, 2021; Asiamah, Mensah, & Oteng-Abayie, 2017).

The population of this study consists of 100 to 300 level students studying at least one of the four programmes (Registered General Nursing, Registered Midwifery, Nurse Clinical Assistants, and Nutrition and Dietetics) offered by the college. This population was selected to determine students' level of awareness and use of ER. The actual population of the College stands at 1042 as per data received from the Human Resource Manager of the College.

Table 3.1 Student population

	Male	Female	Total
Level 100	46	481	527
Level 200	26	287	313
Level 300	32	170	202
Total	<u>104</u>	<u>938</u>	<u>1042</u>

(SDA NMTC Asanta, Office of the HR, 2023)

3.5.2 Sample Size

The sample is a representation of a larger population characterized by the qualities of that population from which data is sampled to represent the whole population. This process involves extending knowledge gained from the selected sample to the larger population.

It can also be defined as a selection of subjects to represent an entire population carried out in a manner that ensures each subject is either given an equal or unequal chance of selection. Sampling, which is the process of drawing samples from a population, is carried out mostly due to the inability of researchers to study or collect data from all the population primarily because of budget and time constraints.

According to Andrade (2020), a larger sample size better represents a population thereby resulting in a more accurate representation and outcome than a small sample size, which may yield insufficient statistical power to address research questions. The researcher in finding the sample size for the study used Yamane's formula for calculating sample size. It was formulated by the statistician Tara Yamane in 1967. The formula uses two criteria in determining an appropriate sample size from a given population: the level of precision and the confidence level. The level of precision also known as the sampling error finds the exact estimate from a sample by determining the amount of variability that may occur because of chances of selecting a sample instead of using the entire population, this is often expressed as a percentage in the range of $\pm 5\%$. The confidence level identifies the degree of certainty from the result of a sample which accurately reflects the true parameters represented in the entire population, some common confidence levels used are 90%, 95% or 99% respectively (Glenn, 2013).

With the student population of 1042, the researcher used a confidence level of 95% and a level of precision of $\pm 5\%$, resulting in a calculated sample size of 289.

The Yamene's formula is represented as follows.

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

Where.

n = Sample size

N = Population size (1042)

e = Level of precision (5%)

$$n = \frac{1042}{1+1042 (0.05^2)}$$

$$n = \underline{289}$$

Table 3.2 Sample size for each level of Student

	Sample size calculation	Sample size
Level 100	$\left(\frac{527}{1042} \times 100\%\right) \times 289$	147
Level 200	$\left(\frac{313}{1042} \times 100\%\right) \times 289$	87
Level 300	$\left(\frac{202}{1042} \times 100\%\right) \times 289$	55
Total		289

3.5.3 Sampling Technique

The researcher used a stratified random sampling. This type of probability sampling ensures that specific characteristics of the people in the population are well represented in the sample. This sampling approach was used because the population is divided into non-overlapping groups (levels 100, 200 and 300). The sample size reflects the relative proportion of strata in the population in ensuring that subgroups are well represented through random selection of students within each stratum to prevent selection bias.

3.6 Instrumentation

3.6.1 Data Collection Instruments

They are the means for collecting data for a study, it embodies how the researcher collects data and the actual development or construction of a research instrument to collect data (Kumar, 2011). To gather data for the study, a questionnaire was employed.

3.6.1.1 Questionnaire

A written set of preformulated questions focusing on the objective of the study, usually prepared within a closely defined option and administered to respondents to provide responses to the research objectives or questions as identified in the study. They are usually designed for quantitative data collection in very large numbers and administered in person, electronically, via telephone or email (Sekaran & Bougie, 2016).

The questionnaire administered for this study was arranged as per the study objectives. It was therefore grouped into seven (7) sections.

1. Biographic data
2. Awareness of electronic resources
3. Use of electronic resources
4. Ease of use of electronic resources
5. Attitude and behaviour toward the use of electronic resources
6. Level of satisfaction with the use of electronic resources
7. Challenges to the use of electronic resources

The questionnaire for this study was systematically developed, focusing on each construct within the TAM theoretical framework. Initially, a comprehensive literature review guided by the TAM was conducted to identify key themes and variables specific to electronic resource utilization. The instrument was then structured around the seven identified sections as shown above, with each section containing carefully formulated questions designed to address specific research objectives. The questions were developed using a combination of adapted items from validated instruments in previous studies on ER awareness and usage, and newly constructed items tailored to the specific context of this study. To ensure content validity, the draft questionnaire was sent for expert review by two faculty members and a colleague in the information science profession, who provided feedback on the clarity, comprehensiveness, and relevance of the questions. The questions were in the form of multiple-choice with most of them having a Likert scale.

This questionnaire was used because it increased the scalability and turnaround time of data collection and ensured a high level of anonymity. It also reduced biases since similar questions were administered to all participants without the interference of the researcher.

Regardless of these advantages to the use of a questionnaire, it can lack deeper insight with limited or no expression of experiences by participants due to its objective nature.

3.6.2 Data Collection Procedure

Questionnaires were distributed to subjects manually within their various classrooms, starting from level 100 through to level 300. Before the data collection, the class lists for each level were obtained from the academic officer, and these served as the sampling frame. Using a systematic sampling approach, every 4th student on the class list across all three levels was selected to participate in the study. This was calculated as follows:

$$n = \frac{\text{Population}}{\text{sample}}$$

Table 3.3 Sampling Interval

Level	Sampling interval calculations	Sampling Interval
100	$n = \frac{527}{147} = 3.5$	Every 4 th student
200	$n = \frac{313}{87} = 3.6$	Every 4 th student
300	$n = \frac{202}{55} = 3.67$	Every 4 th student

The starting point for selecting respondents in each class was randomly determined by picking a number between 1 and 4; after this, every 4th student on the class list was invited to participate in the study, until the required sample size for each level was attained. The students who were selected were provided with a general introduction to the purpose of the study, together with the assurance of confidentiality of responses and anonymity of

identity. Each respondent was given twenty minutes to complete the questionnaire during their regular class period.

3.7 Validity and Reliability

It contributes to generating good and consistent research results by reducing response errors while ensuring consistency. Validity in a survey or questionnaire points out the respondent's ability to develop the same understanding of questions as intended by the researcher, it shows the extent to which a data collection tool accurately measures the intended subject rather than something else. The researcher ensured validity by first presenting the questionnaire to colleagues and later to research supervisor to review and make necessary corrections through the use of face validity (Cobern & Adams, 2020; Taber, 2018).

Reliability identifies consistency in the instrument to provide the same outcome when administered repeatedly at different time intervals. This was done using test-retest reliability as a pilot study where the questionnaire was administered to test and retest participants within an interval of ten (10) days after the first test to obtain the level of correlation in responses (Bolarinwa, 2015; Cobern & Adams, 2020; Taber, 2018). A total of ten respondents comprising of eight students and two tutors were randomly selected from the SDA Nursing and Midwifery Training College Asanta, Ghana, for the pilot study. Based on the result from the pilot study, necessary revisions were made to improve the wording of some questions and response options.

3.8 Data Analysis

This entails the “process of systematically gathering, cleaning, coding, describing, modelling and interpreting data using statistical techniques” (Eldridge, 2023). According to Taherdoost (2022) data analysis is transforming data from the field into useful information using different techniques and methods. It brings out meaning and orderliness in data to support and defend the objectives identified in the study.

The researcher used the Statistical Package for Social Science (SPSS) to analyze data due to its global acceptance and accuracy in producing statistical analysis of data. The complete questionnaires were reviewed for completeness and unique identifiers were assigned to each form. After, data coding was carried out by defining all variables in SPSS followed by value labelling, data entry, data cleaning and running frequency analysis to check for outliers and missing values. The researcher performed descriptive statistics and inferential statistics using Chi-Square with a significance level of $p \leq 0.05$, to make inferences and generalizations about the wider population.

3.9 Ethical Consideration

The eminence of ethical consideration from data collection, writing of reports and dissemination of research findings cannot be underemphasized during the research process. Hence, it must be handled tactfully to protect both the identity of subjects and the sanity of the work.

This research took a paramount interest in ensuring and protecting the confidentiality and anonymity of respondents and the data collected. The rationale behind the study was

made known to respondents while ensuring that an ethical clearance was obtained from the Institute of Statistical, Social and Economic Research (ISSER) together with an introductory letter from the Department of Information Studies, University of Ghana Legon, officially introduce the researcher within an overt context of the study.

3.10 Summary of the Chapters

This chapter highlights the research methodology, the specific paradigm to be adopted, the research design, the selection of cases and subjects, instrumentation, validity and reliability of instrument, data analysis, ethical consideration and summary.



CHAPTER FOUR

4.0 ANALYSIS AND DISCUSSION OF FINDINGS

4.1 Introduction

In this chapter, the researcher presents a comprehensive analysis of research data collected from the field, along with the interpretation and discussion of findings discovered, aligning with the specific objectives of the study. The questionnaires administered were organized according to the research objectives, aiming to gather information on the awareness of ERs in the college library, the use of ERs, the attitude and behaviour towards the use of ERs, the ease of use of ERs, challenges encountered with the use of ERs and the level of satisfaction derived from the use of ERs.

A 100% response rate was recorded for this study. This was attained through creating adequate awareness among students in their respective classes a day before data collection. Students were educated on the relevance of the study, which included shaping policy formulation on electronic resources in the college library. Also, questionnaires were administered to the sample size for each level while they were in class, which ensured that all subjects sampled within each class responded to and returned their questionnaire to the principal investigator within the twenty-minute response time.

Sections 4.2 show responses on demographics, and sections 4.3 to 4.8 present data on:

- Awareness of electronic resources among students
- The use of electronic resources among students
- Attitude and behaviour towards the use of electronic resources

- Ease of use of electronic resources among students
- Challenges with the use of electronic resources
- Satisfaction from the use of electronic resources

4.2 Demographic Data

This section presents the demographic characteristics of study participants, encompassing key variables such as gender, age group, current academic level and enrolled programmes.

4.2.1 Gender

Given that the sample population included students of diverse gender identities, subjects were asked to select their gender. The table below presents their responses.

Table 4.1 Gender of Students

Option	Frequency	Percentage (%)
Male	46	15.9
Female	243	84.1
Total	289	100

Source: Filed data, 2024

From Table 4.1, Female student respondents constitute majority of respondents, represented by 243 (84.1%) students, it shows that out of every 10 students, at least 8 are females. The male students were the least, representing one-sixth of the total population

with a percentage of 15.9%. This justifies the nature of the college as a female-dominated institution both in relation to the kind of programmes offered and the proportion of male-to-female students enrolled on to these programmes.

4.2.2 Age of Students

The ages of students were collected and analyzed using the age range of 16 to 30 years.

Table 4.2 presents the findings.

Table 4.2 Age Range of Students

Option	Frequency	Percentage (%)
16-20	61	21.1
21-25	208	72
26-30	20	6.9
Total	289	100

Source: Field data, 2024

Table 4.2 shows that majority of student respondents aged 21-25 years (72%), and the minority aged 26-30 years (6.9%). Also, at least 7 out of every 10 students aged 21-25 years.

4.2.3 Levels of Students

The college runs a three-year academic programme from level 100 to level 300. Students were asked to select their current level from a list of options. The table below shows a representation of the responses obtained.

Table 4.3 Levels of Students

Option	Frequency	Percentage (%)
100	147	50.9
200	87	30.1
300	55	19.0
Total	289	100

Source: Field data, 2024

Table 4.3 above shows that majority of the student respondents were in level 100, represented by 50.9%. Level 300 student respondents were the least with 19%. Also, 30.1% of the student respondents were in level 200.

4.2.4 Programs of Study

The College has four distinct programmes comprising Registered General Nursing (RGN), Registered Midwifery (RM), Nurse Assistant Clinical (NAC) and Nutrition and Dietetics (ND). Students' responses on the specific programmes enrolled are presented in Table 4.4.

Table 4.4 Students Programme

Option	Frequency	Percentage (%)
RGN	108	37.4
RM	160	55.4
ND	16	5.5
NAC	5	1.7
Total	289	100

Source: Field data, 2024

From Table 4.4, majority that is 55.4% of respondents, offer Registered Midwifery. Minority of the respondents (1.7%) were enrolled in Nurse Assistant Clinical. Students who offer Registered General Nursing were also 37.4%.

After having identified the demographic characteristics of the respondents, it was decided to determine their level of ER awareness.

4.3 Awareness of Electronic Resources

Perceived Usefulness (PU), a major construct of the Technology Acceptance Model (TAM), is a significant factor in driving awareness. When users recognize a system's utility, it helps promote awareness of its existence. This suggests that the perceived usefulness of a system plays a vital role in promoting systems awareness among potential users. To determine the awareness of ER at SDA NMTC Asanta, the subjects were asked to answer a Yes or No if they were aware of ER in the college library.

The section also compares awareness of ER by levels to find out the types of ER known to students. The subjects who claimed to be aware of ERs were further asked to identify the types of electronic resources they knew about. Also, a chi-square with a p-value of 0.05 was used to determine whether awareness was statistically significant by the various levels. The findings are presented in Table 4.5, Table 4.6, and Table 4.7 below.

Table 4.5 Responses on Awareness of ER

Awareness of ER	Frequency	Percentage (%)
Yes	247	85.5
No	42	14.5
Total	289	100

Source: Field data, 2024

From Table 4.5, majority, that is 85.5% of the subjects were aware of the existence of ER in their library, while 14.5% were not aware of ER in the college library.

The finding is that most students were aware of the ER in their college library. However, it can be said that awareness was not universal.

4.3.1 Awareness of the Type of Electronic Resource

As a follow-up question, respondents who claimed that they were aware were subsequently requested to indicate the type of ER. Table 4.6 indicates the results.

Table 4.6 Responses on Awareness of Types of Electronic Resources

Option	N= 289	Frequency	Percentage (%)
E-book		95	32.9
E-database		57	19.7
E-journal		7	2.4
CD-ROM		10	3.5
At least 2 types of ER		41	14.2
At least 3 types of ER		22	7.5
At least 4 types of ER		15	5.3
None		42	14.5
Total		289	100

Source: Field data, 2024

From Table 4.6, majority of student respondents, that is 32.9% were aware of e-books as a type of ER. Also, 58.5% of students were aware of at least one type of ER and approximately 27% of students were aware of two or more types of ERs.

The key findings pointed out that e-books are the most recognized form of electronic resource among students, also most students have limited knowledge about the different types of ER, evidenced by the gap between those aware of at least one type and those aware of multiple types of ERs.

4.3.2 ER Awareness by Levels

Having indicated their awareness of the ER, it was decided to compare awareness by levels. Also, a Pearson Chi-Square with a significance level of 0.05 was used to determine whether awareness was significant by the various levels. Table 4.7 illustrates the findings.

Table 4.7 Responses on ER Awareness by Levels

Awareness of ER	Level 100		Level 200		Level 300		Chi-Square	
	No.	%	No.	%	No.	%	df	P-value
Yes	120	(81.63)	80	(91.95)	47	(85.45)	2	0.96
No	27	(18.37)	7	(8.05)	8	(14.55)	2	0.96
Total	147	(100)	87	(100)	55	(100)	2	0.96

Source: Field data, 2024

From Table 4.7, majority of respondents, that is 91.95% of level 200 students, were aware of ER. The level 100s had the least (81.63%) awareness of ER. A significant level of 0.96 was obtained for awareness by various academic levels, this is greater than the p-value of 0.05. Hence, awareness of ER is not statistically significant at the various levels.

It can be deduced from the work that level 200 students had the highest awareness level. However, 81.6% being the least suggest that ER is well-known among students across all levels. The lack of statistical significance shows that the observed variation in awareness between levels could be a result of chance or random fluctuations in the sample.

Having established the awareness of electronic resources among the students, it was decided to ascertain whether they use the resources provided by the college library.

4.4 The Use of Electronic Resources Among Students

The Technology Acceptance Model (TAM) includes Actual System Use as a major component, which quantifies the degree of a system's practical use. According to Su and Li (2021), a user's behavioural intention to utilize a system is influenced by their perceived usefulness and perceived ease of use of that system. This construct was used to determine students' usage of ER provided by the college library. Subjects were therefore requested to indicate a Yes or No to the question of use of ER. The findings from this inquiry are illustrated in Table 4.8.

As a supplementary investigation, subjects who affirmed ER utilization were requested to specify both the length of time of their engagement and the exact activity for which they used these resources. This section of the study also conducted a comparative analysis of ER use across different academic levels and identified the factors contributing to the non-adoption of ER among students. The findings from these analyses are presented in Tables 4.9, 4.10, 4.11, and 4.12.



Table 4.8 Use of Electronic Resources

Use of ER	N= 289	Frequency	Percentage (%)
Yes		225	77.9
No		64	22.1
Total		289	100

Source: Filed data, 2024

From Table 4.8, majority that is 77.9% of student respondents said they use ER and 22.1% also said they do not use the ER provided by the college library.

The finding is that a high level of electronic resource utilization was present among the student respondents.

4.4.1 Electronic Resource Use by Levels

The students were categorized into levels to determine the spread of ER utilization by the various academic levels. Also, a Chi-Square using a significance level of 0.05 was used to determine if the use of ER was significant by levels. Table 4.9 presents the findings.

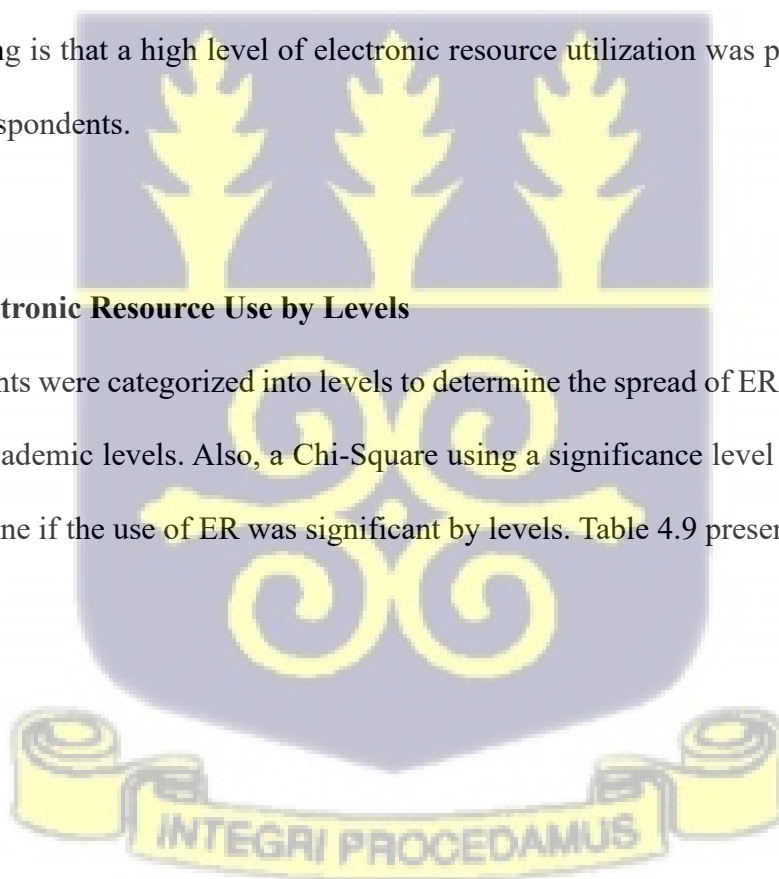


Table 4.9 Responses to the Use of ER by Levels

Use of ER by levels N= 289	Frequency	Percentage (%)	Chi-Square for ER use by levels	
			df	P-value
Level 100	110	48.9	1	0.002
Level 200	71	31.55	1	0.002
Level 300	44	19.55	1	0.002
Total	225	100	1	0.002

Source: Filed data, 2024

From Table 4.9, majority that is 48.9% of student respondents who use electronic resources, were in level 100. Those who used ER in levels 200 and 300 were 31.55% and 19.55% respectively. Also, a significance level of 0.002 was recorded for the chi-square on use of ER, which is less than the p-value of 0.05. Hence, use of ER was statistically significant, indicating that the level of study of students has a meaningful effect on the use of ER among students.

Based on the findings, it can be deduced that first-year students demonstrated the highest use of ER, while this is encouraging, the use of ER appeared to decline as students progressed through their academic levels. suggesting that early exposure of students to ER may be effective in their adoption. Also, the significance of the chi-square reflects the positive impact of level of study on the use of ER among students.

4.4.2 Length of Time of ER Use

In line with the use of ERs, it was decided to determine the length of time of ER use by respondents. This was done by asking only student respondents who answered Yes to the Use of ERs to specify how long they have used ERs provided by the college library. Table 4.10 shows the findings.

Table 4.10 Responses on Length of Time of ER Use

Option	N= 289	Frequency	Percentage (%)
less than 1 year		67	29.78
1 year		67	29.78
2 years		33	14.67
More than 2 years		58	25.77
Total		225	100

Source: Field data, 2024

From Table 4.10, majority that is 29.78% of student respondents, used electronic resources for less than one year and precisely one year. 25.77% also used ER for more than two years, and the least that is 14.67% used it for two years.

It can be deduced from the work that there was an even split in the short-term and long-term use of ER among the students, attributable to varying levels of digital literacy and or personal preference.

4.4.3 Specific Use of ER

Respondents who said Yes to the use of ERs were subsequently requested to elucidate the specific purpose for which they use ERs. Their responses are systematically presented in Table 4.11.

Table 4.11 Responses on the Specific Use of ER

Option	N= 289	Frequency	Percentage (%)
Assignment		70	31.1
Research/project work		102	45.3
Expansion of knowledge		48	21.3
Bibliographic management		5	2.2
Total		225	100

Source: Field data, 2024

From Table 4.11, majority of respondents, that is 45.3%, used electronic resources for research or project work. Very few respondents, that is, 5 or 2.2%, used ER to manage or create a bibliography. This suggests that most students use ER because of their research or project work.

The finding is that the primary use of ER among students was for core academic activities (research and project work). This underscores the integration of electronic resources into contemporary academic work.

4.4.4 Reason for Non-Use of ER

Participants who indicated non-utilization of ER were further asked to provide reasons for nonparticipation in ER services provided by the college library. Their responses are presented in Table 4.12.

Table 4.12 Response on Reasons for Non-use of ER

Option	N= 289	Frequency	Percentage (%)
Inability to retrieve information using e-resources		9	14.1
Lack of awareness of e-resources		29	45.3
Use print materials due to limitations with technology use		14	21.8
Complicated access		9	14.1
Perceived unreliability		3	4.7
Total		64	100

Source: Field data, 2024

Table 4.12 outlines the primary factors contributing to the non-use of electronic resources among respondents. The predominant reason for non-utilization, cited by 45.3% of participants, was a lack of awareness regarding electronic resources. 21.8% of participants ascribed this to deficiencies in technological proficiency, and 14.1% identified inadequate information retrieval skills as the barrier to their non-use of ER. The least cited reason, according to 4.7% of respondents, was the perceived unreliability of electronic resources.

Based on the findings, it can be deduced that lack of awareness is the most significant barrier to ER adoption, this suggests a potential gap in the library's communication or promotional strategies. Also, the varied reasons for the non-utilization of ER point out the multifaceted nature of challenges in ER adoption, which demand a miscellaneous approach to address barriers.

With the use of electronic resources among the students well-established, it was decided to determine their attitude and behaviour towards the use of ER in the following section.

4.5 Attitude and Behaviour Towards the Use of ER

Attitude and Behavioral Intention to Use are critical components of TAM, a good understanding of users' attitudes and behavioral intention towards ER helps to determine whether students value and will use ER or not. This section focuses mainly on students' preference for ER over print materials which is presented in Table 4.13.

Also, the importance of ER to academic work, and the benefits of ER to students were equally highlighted. The significance between the preference of ER over print material by levels was tested using chi-square with a p-value of 0.05. The findings are illustrated in Table 4.14, and Table 4.15.

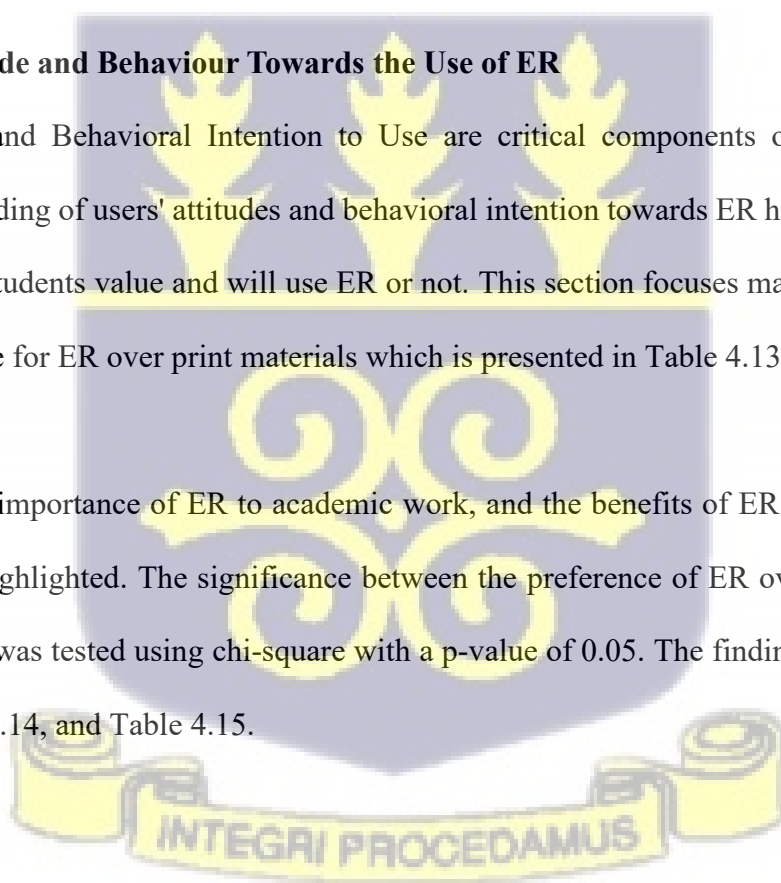


Table 4.13 Responses on Preference for ER over Print Materials

Option	N=289	Frequency	Percentage (%)	Chi-Square Test	
				df	P-value
Agree		117	40.5	8	0.007
Strongly agree		73	25.3	8	0.007
Neutral		63	21.8	8	0.007
Disagree		30	10.4	8	0.007
Strongly disagree		6	2.1	8	0.007
Total		289	100	8	0.007

Source: Field Data, 2024

Table 4.13 presents data on respondents' preferences regarding ER in comparison to print materials. Majority, comprising 65.8% of respondents expressed a preference for ER over print resources, indicating either agreement or strong agreement. Minority that is 12.5% of student respondents expressed disagreement or strong disagreement with the preference for ER over print materials. The chi-square test had a p-value of 0.007 indicating a statistically significant correlation.

The finding is that students had a strong predilection for electronic resources. Also, the significance level of 0.007 suggests that students' years of study influence their inclination toward ER. Overall, the findings suggest a positive attitude and behavioral intention regarding the use of ER among students.

4.5.1 Importance of ER to Academic Work

Respondents were requested to identify the importance of ER to their academic work. This was done to establish attitude towards use by requesting students to point out the importance of ER using a Likert scale. Table 4.14 illustrates the findings.

Table 4.14 Responses on the Importance of ER to Academic Work

Option	N= 289	Frequency	Percentage (%)
Important		111	38.4
Very important		150	51.9
Neutral		27	9.3
Not important		1	0.3
Total		289	100

Source: Field data, 2024

From Table 4.14, majority, comprising 90.3% of participants affirmed the importance of ER, categorizing them as either “important” or “very important.” Few, that is 0.3% of the students deemed ER unimportant and 9.3% of participants held a neutral position regarding the importance of ER.

It can be deduced from the work that there was a significant level of recognition of the value of ER among respondents, which highlights a positive attitude toward the use of ER among students.

4.5.2 Benefits of Electronic Resources to Students

Respondents were requested to identify the benefits of using ER to show whether students have a positive or negative attitude toward the use of ER. Table 4.15 presents the findings.

Table 4.15 Responses on Benefits of ER to Students

Option	N=289	Frequency	Percentage (%)
Convenience of use		172	59.5
Up-to-date content		41	14.2
Simultaneous access		39	13.5
Cost efficiency		17	5.9
Improved discovery of relevant materials		20	6.9
Total		289	100

Source: Filed data, 2024

According to Table 4.15, majority of student respondents, 59.5% identified convenience as the principal importance of ER. A few students, 5.9% highlighted the cost-efficiency of ER as a significant benefit. Notably, every participant (100%) in the study was able to identify at least one benefit associated with the use of ER.

The finding is that majority of students consider ER as convenient to use. However, the unanimous ability to identify the benefits associated with ER utilization indicates a positive attitude and understanding of the value of ER among students.

After determining the users' attitudes and behaviours towards ER use, it was decided to investigate their ease of ER use.

4.6 Ease of Use of Electronic Resources Among Students

Perceived Ease of Use (PEOU), a core component of TAM quantifies users' perceptions of a system's operational simplicity. In the context of this objective, PEOU specifically addresses respondents' assessment of how effortless ER can be used. This section primarily examines the ease of ER use among students. Respondents were asked to determine the ease of ER use using a Likert scale. Table 4.16 illustrates the findings.

Furthermore, the investigation evaluated students' ability to narrow down search results. It also determined the relationship between ease of use by levels using a Chi-square test with a significance level of 0.05. Table 4.17 presents the findings.

Table 4.16 Responses on Ease of Use of ER

Option	N=289	Frequency	Percentage (%)	Chi-Square Test	
				df	P-value
Easy		71	24.6	8	0.001
Very easy		48	16.6	8	0.001
Neutral		88	30.4	8	0.001
Difficult		61	21.1	8	0.001
Very difficult		21	7.3	8	0.001
Total		289	100	8	0.001

Source: Field data, 2024

From Table 4.16, majority of student respondents that is 41.2% found ER “Easy” and “Very easy.” to use. 28.4% found ER “Difficult” and “Very difficult” to use while 30.4% expressed a neutral stance. The Chi-Square test had a p-value of 0.001 for the relationship between perceived ease of use of ER among students in the various academic levels.

It can be inferred from the finding that majority of users have a positive perception of ER use. This aligns with the PEOU construct under TAM, which suggests a favourable condition for the adoption and use of ER. Also, the statistically significant relationship observed implies that students’ academic level influences the ease of ER use.

4.6.1 Ability to Narrow Down Search Results

Respondents were required to indicate how effortless they can narrow down search results when using electronic resources. This was a follow-up question to determine how easy students find using ER. The table below shows the findings.

Table 4.17 Responses on Ability to Narrow Down Search Results

Option	N=289	Frequency	Percentage (%)
Agree		106	36.7
Strongly agree		46	15.9
Neutral		90	31.1
Disagree		25	8.7
Strongly disagree		22	7.6
Total		289	100

Source: Field data, 2024

According to Table 4.17, majority of student respondents that is 52.6% expressed agreement or strong agreement with their ability to narrow down search results. 31.1% maintained a neutral stance and minority that is, 16.3% reported finding it difficult or very difficult to narrow down search results when using ER.

It is evident from the finding that majority of students possessed self-search refinement skills, suggesting an increased level of information literacy skills among students.

Following the determination of the ease of ER use among the students, the study proceeded to examine the challenges hampering students' proficient use of electronic resources.

4.7 Challenges with The Use of Electronic Resources

Challenges, representing the External Factors in TAM, have significant influence on both the Perceived Ease of Use (PEOU) and Perceived Usefulness (PU) of ER. When users encounter multiple system challenges, their perception of the system's usability often reduces. This section primarily investigates the availability of ER, by asking subjects a Yes/No question whether electronic resources were readily available to them.

A subsequent question required subjects to identify specific challenges they had encountered while using ER. Additionally, a Chi-square test with a p-value ≤ 0.05 was used to examine the potential correlation between challenges by academic levels. Table 4.18 and Table 4.19 illustrate the findings.

Table 4.18 Responses on Availability of Electronic Resources

Availability of ER	N= 289	Frequency	Percentage (%)	Chi-square test	
				df	P-value
Yes		132	45.7	2	<0.001
No		157	54.3	2	<0.001
Total		289	100	2	<0.001

Source: Field data, 2024

From Table 4.18, majority of student respondents that is 54.3% reported that ERs were not readily available when needed, on the other hand, minority, that is 45.7% of student respondents indicated consistent availability of electronic resources when needed. Also, the chi-square test had a statistical significance of <0.001 between challenges relating to the availability of ER by academic levels.

The results show that majority of students have trouble accessing ER, which is likely to impact both PEOU and PU of electronic resources. Equally, the significance of the chi-square test indicates that students' level of study has an influence on the experience of availability challenges.

4.7.1 Challenges with the Use of ER

Respondents were asked to identify possible challenges that they face when using ER.

The table below presents the findings.

Table 4.19 Responses on Challenge with the Use of Electronic Resources

Specific Challenges with ER	N= 289	Frequency	Percentage (%)
Slow access speed		141	48.8
Lack or inadequate searching skills		57	19.7
Restricted access		35	12.1
Information overload		12	4.2
Not easy to use		28	9.7
Power cut		16	5.5
Total		289	100

Source: Field data, 2024

From the table above, majority of respondents that is 48.8% identified slow access speed or slow internet speed as the predominant challenge to ER use and minority of the student respondents that is 4.2% said information overload was the challenge they confronted. It was also noticed that 19.7% of students were faced with inadequate searching skills.

The finding is that technical infrastructure limitation (internet speed) was the most reported barrier to ER use among students. This suggests a critical need for internet access improvement to enhance the accessibility and use of ER.

After having successfully examined the challenges to ER us among the students, it was decided to identify the level of user satisfaction with the use of electronic resources.

4.8 Satisfaction with The Use of Electronic Resources

Perceived Usefulness (PU) is a critical component of the Technology Acceptance Model (TAM) that directly influences user satisfaction. When users perceive a system to be useful, they tend to have a high satisfaction level with it. This unit examines user satisfaction with ER by assessing students' evaluation of the depth and coverage of ER in their subject areas.

Also, this unit investigates respondents' overall satisfaction with ER usage, identifies the specific type of ER they find most satisfying, and determines whether they would recommend ER to other students based on their experiences. The findings are presented in the tables below.

Table 4.20 Depth and Coverage of Electronic Resources in Subject Area

Option	Frequency	Percentage (%)
Excellent	44	15.2
Good	173	59.9
Fair	61	21.1
Poor	11	3.8
Total	289	100

Source: Field data, 2024

From Table 4.20, majority of respondents, that is, 59.9% rated the depth and coverage of ER in their subject area as good, 15.2% considered it to be excellent and a few students, that is 3.8% rated it as poor.

It can be deduced from the work that majority of student respondents rated the depth and coverage of ER as good and excellent, suggesting a positive perception of the usefulness of ER among students.

4.8.1 Overall Satisfaction with ER Use

To determine their overall satisfaction with the use of ER, students were asked to rate their level of satisfaction with using ER. Also, the relationship between overall satisfaction by levels was tested using a chi-square with a significance level of 0.05. The table below shows the findings.

Table 4.21 Responses on Overall Satisfaction with ER Use

Option	N= 289	Frequency	Percentage (%)	Chi-Square Test	
				df	P-value
Satisfied		123	42.6	8	.001
Very satisfied		60	20.8	8	.001
Neutral		82	28.4	8	.001
Dissatisfied		20	6.9	8	.001
Very dissatisfied		4	1.4	8	.001
Total		289	100	8	.001

Source: Field data, 2024

From Table 4.21, majority of students that is 63.4% reported being either “Satisfied” or “Very satisfied” with the use of ER, few students (8.3%) on the other hand expressed

dissatisfaction with ER use. 28.4% remained neutral, expressing neither satisfaction nor dissatisfaction. A chi-square test had a p-value of 0.001 for the relationship between overall satisfaction by academic levels, indicating a statistical significance as against the $p\text{-value} \leq 0.05$.

The finding is that majority of students generally had a positive experience and were satisfied with the use of ER.

4.8.2 Type of Electronic Resources with the Highest Satisfaction Rate

After finding out about respondents' general satisfaction with ER, they were also asked to indicate specifically the type of electronic resource they were most satisfied with.

The table below presents the findings.

Table 4.22 Responses on Type of Electronic Resources Most Satisfied With

Option	N=289	Frequency	Percentage (%)
E-book		172	59.5
E-journal		28	9.7
E-database		70	24.2
CD-ROMS		19	6.6
Total		289	100

Source: Filed data, 2024

From Table 4.22, majority of students that is 59.5% expressed the highest satisfaction with e-books compared to other types of ER. Few students (6.6%) expressed satisfaction with CD-ROMs. Also, 24.2% of respondents were satisfied with e-databases.

The results show that most students were satisfied with using e-books as compared to other types of ER available.

4.8.3 Recommending the Use of Electronic Resources to Others

Respondents were also examined on how likely they were to recommend ER to other people. The table below shows their responses.

Table 4.23 Responses on Recommending Electronic Resources to Others

Option	N= 289	Frequency	Percentage (%)
Highly likely		90	31.1
Likely		122	42.3
Neutral		65	22.5
Unlikely		11	3.8
Highly unlikely		1	0.3
Total		289	100

Source: Filed data, 2024

According to Table 4.23, majority, that is 73.4% of respondents reported that they were “Highly likely” or “likely” to recommend ER to other students. Minority that is 4.1% of

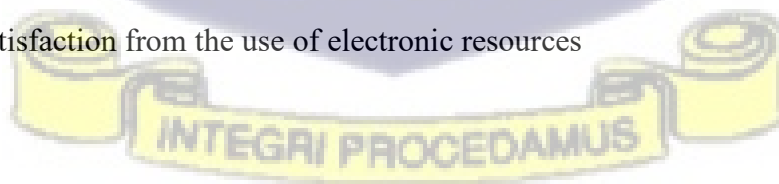
student respondents reported they were unlikely or highly unlikely to recommend ER to other students.

The findings show that most of the subjects were willing to recommend ER to other students due to the increased satisfaction they obtained.

4.9 Discussion of Findings

The purpose of the study was to determine the awareness and use of ER among students of SDA NMTC Asanta. This section discusses the findings presented earlier in the chapter by connecting them to the Technological Acceptance Model (TAM) which was used for the study's theoretical framework. The findings of this study are discussed based on the following themes:

1. Awareness of electronic resources
2. The use of electronic resources among students
3. Attitude and behaviour toward the use of electronic resources
4. Ease of use of electronic resources among students
5. Challenges with the use of electronic resources
6. Satisfaction from the use of electronic resources



4.9.1 Awareness of Electronic Resources

The first objective of the study was to determine students' ER awareness level, which aligns with the Perceived Usefulness component of the Technology Acceptance Model (TAM).

In line with this model, users are more likely to seek information about a system if they perceive it as useful. This increases their levels of awareness about the system. Findings from this study showed that student respondents perceive electronic resources as useful, this is evident by majority (85.5%) of student respondents expressing awareness of ER. It was also noticed that a greater percentage (32.9%) of student respondents were aware of E-books as compared to other types of ERs. This high level of awareness can be attributed to the mandatory class-by-class in-library orientation for all fresh students at the college, the inclusion of library (information literacy) as a course on the timetable for first- and third-year students and the frequent engagement of the college librarian as a guest tutor to educate students on sources of information during lessons in research. This high awareness level has significant implications for the academic and research success of students in this study, because they have increased opportunities to access diverse information resources, especially for students who are aware of multiple ER. The differential awareness levels observed for specific ER can be traced to factors such as more emphasis on some ER as compared to others, comprehensive coverage and wider use among other tutors, such as e-books.

Juxtaposing this with other studies, it was corroborated by Vanik and Gamit (2022); Ankamah, Gyesei and Amponsah (2022); Chanda (2021) that majority of students showed

a high level of awareness of ER. Also, this study supports the findings by Baayel and Asante (2019) whose findings revealed that majority of respondents were aware of ER.

Ankamah, Gyesi and Amponsah (2022) posited that the increase in the awareness of ER among students goes hand in hand with determining the efficient and effective use of these resources by providing a user-friendly interface, and reduced time in accessing information. Similarly, the findings by AlRiyae and Ahmed (2017) substantiated that more medical students in their study were aware of electronic resources due to periodic literacy programs offered by the university library.

However, this was different from the case of Osinulu (2020) who identified that majority of students in Olabisi College of Health Science, Nigeria, demonstrated a low level of awareness of ER. They identified this as a matter of “grave concern” to information professionals and academic institutions considering the increased cost of subscription to electronic resources. Similarly, Dukper, Sakibu and Arthur (2018) reported that more than half the number of Tamale Technical University students interviewed in a study were unaware of ER in their university library due to inadequate awareness creation.

The differences between the findings of the current study and the previous studies may be attributed to several contextual factors. First, the current study setting may have a more robust digital infrastructure coupled with an effective ER promotion strategy, which may not have been present in the institutions researched on by Osinulu (2020) and Dukper, Sakibu and Arthur (2018). Also, global events such as the Covid-19 pandemic may equally be a contributing factor. Digital literacy initiatives and accessibility to ER gained

momentum across many educational institutions in Africa during and after the COVID-19 pandemic, which increased students' awareness since most academic activities were delivered electronically during this period.

4.9.2 The Use of Electronic Resources Among Students

The Actual System use component of the Technology Acceptance Model (TAM) discusses the degree of real use of a system, by positing that when users perceive a system as both useful and easy to use, it positively influences the actual use of the system (Kelly & Palaniappan, 2023).

The study's findings showed that while a significant majority (77.9%) of student respondents used ER, their duration of use was relatively short and not frequent, spanning at least one year. Additionally, it was observed that most (45.3%) student respondents who used ER predominantly used it for their research purposes. The high adoption rate (77.9%) coupled with low frequency of use can be attributed to high awareness level (85.5%). This pattern can be emanating from behavioral and institutional factors, where students, after initial exposure to ER in their first year, only actively use these ER for their research and other academic projects in their final year. Furthermore, it can be deduced from the findings that the utilization of ER is driven by external academic requirements, where students are required to use these resources for their research, rather than resulting from students' intrinsic motivation to use them. This shows a gap where students may not be leveraging the full potential of available ER to enrich their academic performance.

These findings are consistent with the findings by Iroroeavwo and Ahimbisibwe (2020) who reported an increase in weekly ER use among students predominantly for research purposes. Osinulu (2020) affirmed that majority of students who used electronic resources used it to retrieve relevant information for research purposes as discovered in this study. Also, the findings share similarities with that of Hanchinal and Campus (2019) and Dukper, Sakibu and Arthur (2018) who indicated that an overwhelming majority of students used electronic resources. However, the frequency of use was rather low among the students.

The findings of this study also support that of Norch and Adzakpa (2022) who reported in a study that most students used electronic resources purposely for research or dissertation, it was included that the frequency of ER use was occasional among most users.

However, findings by Yebowaah and Plockey (2018) did not support this study's findings. According to them, the use of ER was present only among a small percentage of students due to pending internal and external challenges, which contributed to inadequate student engagement with electronic resources. Also, findings by Ebijuwa (2018) discovered that ERs were rarely used among students; it was discussed that this low level of ER utilization had an adverse effect on students' research and academic output, thereby making it difficult to compete with other students globally. This variation in findings may be attributed to improved institutional support and enhanced technological infrastructure, which enables students in the current study to leverage the benefits ER has to offer.

4.9.3 Attitude and Behaviour Towards Use of Electronic Resources

Within the framework of the Technology Acceptance Model, Attitude and Behavioural intention to use a system delineates the willingness of users to adopt or use a particular system. The findings from this study indicate that majority (65.8%) of student respondents expressed a preference for electronic resources over print materials. Also, most (59.5%) student respondents cited the convenience of ER as the principal factor influencing their preference. This strong preference for ER can be attributed to factors such as concerted effort by the institution to invest and promote ER and the current generation of students who have had early exposure to digital resources from basic to tertiary education. The desire for unrestricted access and time efficiency in obtaining information can also contribute to students prioritizing ER over print materials in the quest to satisfy their information needs. This positive attitude has a significant impact, leading to increased access to current and diverse information sources that can improve students' academic and research quality.

The findings of this study corroborate the findings observed in several past studies, including studies by Shehu and Idakwo (2017) and Kumar (2015) who affirmed that students had a positive attitude and behaviour toward the use of ER. This was characterized by their willingness to choose and use ER in lieu of print materials.

Similarly, Shehu and Idakwo (2017), Vanik and Gamit (2022), and Chanda (2021) also supported that majority of students perceived electronic resources as highly important for academic work as well as convenient to use. Singh and Khan (2015) discussed that majority of undergraduate students, postgraduate students, and research scholars of the

Delhi and Kanpur Institute of Technology in India all preferred to use ER over print materials, owing to its ease of use, scope, and coverage of information, timesaving, and relevance in meeting information needs.

Singh (2020) equally affirmed the study's findings, stating that majority of students in Punjabi University showed a greater preference for ER over print material. Among the types of ER, most students preferred e-journals and e-books due to their ease of use and the information they contain.

Conversely, the study by Yamson, Appiah and Tsegah (2018), presented contrasting findings by revealing that most students preferred print materials over electronic resources due to their accessibility, ease of use, and completeness. These were further substantiated by the findings of Samzugi (2019) and Abuloum et al. (2019) as they also identified that majority of students preferred print materials over ER, specifically e-books, because print materials were easy to access, search, or navigate. These diverging findings suggest a demographic difference, where students in the current study may be more technologically exposed. Also, the quality and comprehensiveness of the resource could be another factor that may offer students better content coverage and a user-friendly interface.

4.9.4 Ease of Use of Electronic Resources Among Students

The ease of ER use is grounded in the Perceived Ease of Use construct of TAM to determine how easy students perceived the use of ER. The findings of the study disclosed that majority (41.2%) of the subjects found ER easy to use. This denotes a positive

perceived ease of ER use. In addition, majority (52.6%) of student respondents reported that they had the necessary skills to effectively use ER, particularly the ability to narrow down search results when navigating electronic databases. Although majority (41.2%) found ER easy to use, the fact that this is less than half the sample size points out the possible existence of access and use barriers. Also, the findings of adequate skills demonstrate that students may possess the required technical competencies to engage electronic platforms for ER. This may promote independent research and improved learning outcomes among students.

These findings align with the results discussed by Yamson, Appiah and Tsegah (2018) and Ekenna (2013), who posited that majority of students perceived ER to be easy to use. They also indicated that most students possessed the requisite skills for searching and retrieving electronic information. Moreover, Baayel and Asante (2019) and Soni, Gupta and Shrivastava (2018) revealed that majority of students were adequately equipped with computational skills and could independently locate and retrieve electronic information without external support.

The findings were also supported by Ebijuwa (2018) who pointed out that majority of respondents in selected private universities in Nigeria perceived ER as easy to use. Most students shared that their interaction with ER was clear, flexible and understandable. Ebijuwa also revealed that majority of students believed they could have the right skills to effectively use ER.

The study's findings, however, did not support that of Adetunla (2016), who discovered that majority of students perceived ER to be difficult and complex to use and understand. In addition, majority of students disagreed with being skillful in using ER. Adetunla also discussed that students' low level of IT competence was a determinant of the negative perceived ease of ER use. Likewise, Omeluzor, Akibu, and Akinwoye (2016) revealed that majority of students disclosed that the coverage of ER content was not enough for the courses they were studying. The differences in findings may be attributed to technological advancement over the years, where recent ER systems have more user-friendly interfaces and support tools. Additionally, frequent capacity-building programs (information literacy) for students in the current study may have better equipped them with the right skills to effectively use ER.

4.9.5 Challenges with The Use of Electronic Resources

Challenges associated with using a system constitute a critical part of the external factors in the Technology Acceptance Model, directly influencing both Perceived Ease of Use and Perceived Usefulness, which consequently impact the Actual Use of a system. According to this study, majority (54.3%) of student respondents expressed facing challenges primarily associated with the non-availability of electronic resources when needed. Other specific challenges reported included slow access speed, lack/inadequate searching skills, restricted access, difficulty in using ER, power cuts, and information overload. These challenges may progressively impact on students' academic and research performance, where students may be compelled to resort to other unreliable sources of information.

These findings support the findings of several studies, including those conducted by Baayel and Asante (2019); Chanda (2021); Iroroavwo and Ahimbisibwe (2020); Shehu and Idakwo (2017); Singh (2019); Soni, Gupta and Shrivastava (2018); Vanik and Gamit (2022), whose studies disclosed similar challenges confronted by students in the use of ER, this discourages students from exploiting the full benefits of electronic resources.

Similarly, Adetunla (2016) shared that majority of students identified power cuts and lack of support and knowledge on how to use ER as the leading challenges to ER utilization. According to Ebijuwa (2018), inadequate searching skills, poor internet connectivity, and unfriendly user interface were the leading causes for the non-use of ER among most students. Omeluzor, Akibu, and Akinwoye (2016) agreed with the findings that most students lacked training in using ER coupled with poor internet connectivity.

However, a different perspective was presented in some studies. Wu and Chen (2012) and Nui et al (2010) found that the documents needed by most respondents were made available in digital format, with reliable internet connection to access ER. They also pointed out how easy it was using ER for academic and research purposes. This variation in findings can be attributed to different contextual factors where the settings in previous studies may have a variety and well-resourced ER and a robust internet infrastructure to ensure access and reliable internet connectivity to users. Also, individual experience with the use of ER over a prolonged period may contribute to ease of ER use, especially as reported by Nui et al (2010), considering that most of the respondents were graduate students and faculty who were actively engaged in research and publication.

4.9.6 Satisfaction from The Use of Electronic Resources

Satisfaction represents the outcome of the Actual Use component of TAM, it encapsulates the positive experiences users gain from using a system, which encompasses both the Perceived Ease of Use and the Perceived Usefulness of a system.

This study's findings pointed out that majority (59.9%) of student respondents expressed satisfaction with the use of electronic resources and were also content with the coverage and depth of ER. Equally, most (59.5%) student respondents expressed higher satisfaction with the use of e-books as compared to other types of ERs. This consequently showed in their willingness to recommend ER to other people. The preference of students for e-books suggests that they desire information resources that closely mirror traditional learning materials like paper books that they have grown familiar with. Aside from visual similarity, the offline accessibility of e-books and the ability to navigate pages easily may contribute to the high satisfaction with e-books. Students expressing satisfaction with ER are likely to engage in independent learning to develop the needed research skills that will enable them to have access to current and relevant information resources.

These findings corroborate studies by Vanik and Gamit (2022), who posited that majority of students were highly satisfied with both access to and use of ER. Also, Singh (2019) revealed that most students expressed their satisfaction with the use of ER.

However, the findings did not support what was presented by Shehu and Idakwo (2017), whose study showed that majority of students expressed dissatisfaction with ER due to pressing challenges from hardware and software limitations. This variation in findings

can be attributed to contextual factors such as better technological infrastructure at the current study settings. The hardware and software challenges pointed out by Shehu and Idakwo (2017) varied from findings of the current study possibly due to time gap, which has seen massive improvement in information technology to address issue like system unreliability and poor user interface.



CHAPTER FIVE

5.0 SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This final chapter directs its emphasis toward the summary of major findings concerning the objectives of this study. It also presents a conclusion, and recommendations linked with the study's findings.

5.2 Summary of Findings

This study sought to uncover the awareness and use of ER among students of SDA NMTC Asanta. It was driven by the following specific objectives; To determine the awareness of electronic resources among 100 to 300 level students, to determine the use of ER among students, to determine the attitude and behaviour towards the use of ER among students, to determine the ease of use of ER among students, to identify challenges encountered by students in the use of ER and to determine the level of satisfaction from the use of ER among students. The summary drawn from the major findings of the study is outlined in the following sections.

5.2.1 Awareness of Electronic Resources

Majority of the students were found to be aware of ER and level 200 students demonstrated the highest awareness. Also, awareness of electronic resources did not vary significantly across the various academic levels.

5.2.2 The Use of Electronic Resources Among Students

Majority of the students were found to use the ER provided by the college library. Also, most of the students used ER for one year or less primarily for research or project work. For non-users, the predominant reason provided was a lack of awareness.

5.2.3 Attitude and Behaviour Towards Use of Electronic Resources

A positive attitude and behaviour towards the use of electronic resources was demonstrated by majority of the students who also expressed preference for electronic resources over print materials. Further, most of the students acknowledged that electronic resources were important to their academic work and were convenient to use.

5.2.4 Ease of Use of Electronic Resources Among Students

A slight majority of the students responded that ER were easy to use, this was affirmed by their partial ability to narrow down search results. Also, there was a positive correlation between academic progression and perceived ease of use of ER, indicating that as students advance in their academic levels, they happen to find electronic resources easier to use.

5.2.5 Challenges with The Use of Electronic Resources

Majority of the students expressed that ER were not readily available when needed. In addition, students cited slow internet access speed, lack of searching skills, restricted access, information overload, difficulty to use, and power cuts as the specific challenges that prevented them from effectively using ER.

5.2.6 Satisfaction from The Use of Electronic Resources

Majority of the students were found to be pleased with the use of electronic resources by expressing satisfaction with the depth and coverage of ER. Also, majority of the students were more content with e-books as compared to other types of ER.

5.3 Conclusion

This study provided insights into the awareness and use of ER among students of the SDA NMTC Asanta, using the Technology Acceptance Model as the theoretical framework. It was discovered that an overwhelming majority of the students were aware of ER and equally used the electronic resources provided by the college library. Notwithstanding, challenges such as slow internet speeds, lack of searching skills, and limited availability of electronic resources restricted some students from using electronic resources.

The findings equally revealed a positive attitude and behaviour towards ER, which showed that most students prefer ER over print materials due to their convenience and current content. This alignment towards digital information resources supports the broader trend of digitization in academic settings globally.

Notably, the study shed light on the significant correlation between the level of students and their ease of using ER. This highlights the importance of constant training and support in developing information literacy skills among students.

Even though the general satisfaction with electronic resources was high, the study also identified key areas for improvement, such as improving the depth and coverage of

subject-specific content of ER, as well as finding solutions to the accessibility challenges faced by students. By addressing these concerns, the use of electronic resources can be improved, thereby developing a more conducive learning environment for students.

5.4 Recommendations

The following recommendations are made based on the findings.

5.4.1 Awareness Creation

From the findings, majority of the students who were found not to use electronic resources expressed a lack of awareness as their prime limitation. Given this, the college library must take proactive steps to constantly educate students about the existence of these resources. This could be done by organizing e-resources workshops, using social media and email to market ER, and conducting orientation together with face-to-face ER updates in various classrooms.

5.4.2 Training on the Use of Electronic Resources

The findings also revealed that only a few students can effortlessly use ER. Therefore, it is required of librarian to provide in-person training and support to students on how to effectively use the various types of ERs.

5.4.3 Subscribe to Electronic Resources with Adequate Coverage and Scope on Course Content.

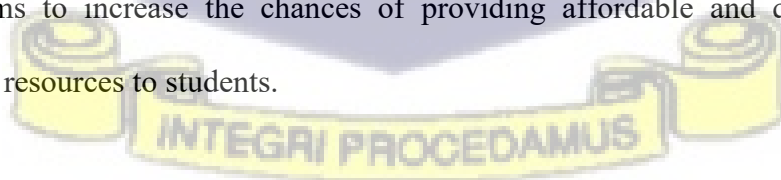
Majority of student respondents shared the challenge of limited coverage and scope of electronic resources on subject areas. It is therefore recommended that the college library initiate measures to subscribe to electronic resources especially those with adequate coverage and scope on course content in line with the college's curriculum.

5.4.4 Investment in Network Infrastructure.

Challenged by the issue of slow internet access and speed, the college must endeavour to expand its internet access and speed through the installation of high-capacity routers to provide fast and unlimited internet to facilitate access to electronic resources.

5.4.5 Collaboration between Institutions, Libraries and other External Stakeholders

To be able to solve the access challenges as indicated by the study, where student respondents indicated that electronic resources were not readily available to them when needed, the college library must form an effective collaboration with other libraries and consortiums to increase the chances of providing affordable and quality access to electronic resources to students.



5.4.6 Suggestion for Future Studies on Determining Changes in Students'

Attitudes, Behaviours and Usage Patterns of Electronic Resources Over Time

The findings of this study showed that awareness of ER varies across the various levels, with the use of ER showing a decline as the academic level progresses. Given this, there is a need for a longitudinal study to determine the changes in students' attitudes and use behaviour over time. This would help to gain a better insight into the developing dynamics and possible interventions needed at the various academic levels.



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APPENDIX A: QUESTIONNAIRE

DEPARTMENT OF INFORMATION STUDIES

UNIVERSITY OF GHANA, LEGON

**Questionnaire on the awareness and use of electronic resources among students of
SDA Nursing and Midwifery Training College Asanta**

The purpose of this study is to find out students' awareness level of electronic resources provided by the college library, the use of these resources and possible challenges that may prevent students from using these electronic resources. Also, the study will solicit your view on the satisfaction derived from the use of these e-resources.

This survey is expected to take twenty (20) minutes of your time to complete.

The information provided will be treated with utmost confidentiality and used solely for research purposes.

INSTRUCTION: Questions are made up of a set of multiple-choice questions, read the questions and check [✓] the boxes provided below the right answer to each question. Also, comment where necessary.

SECTION A

BIOGRAPHIC DATA

1. Gender: a. Male [] b. Female []
2. Age group: a. 16-20 [] b. 21-25 [] c. 26-30 [] d. 31 and above []
3. Programme of study: a. RGN [] b. RM [] c. NAC [] d. ND []
4. Current level: a. 100 [] b. 200 [] c. 300 []

SECTION B

AWARENESS OF ELECTRONIC RESOURCES

5. Are you aware of electronic resources in the College library? a. Yes [] b. No []

6. If “Yes” which of the following electronic resources are you aware of?

(Tick all applicable)

a. E-books [] b. Online databases [] c. CD-ROM []

d. Electronic journals [] e. Other (Specify)

7. How did you get to know about the electronic resources?

a. Library orientation [] b. Colleagues [] c. Library notices []

d. College website [] e. Other (Specify)

8. Has the electronic resource been adequately advertised to students of the College?

a. Yes [] b. No []

9. If “No” which of the following should be done?

a. Organize workshops for students on how to use e-resources []

b. Use social media and email lists to inform students about the various types of e-resources available []

c. Provide periodic updates about e-resources in classrooms. []

d. Other (Specify)

SECTION C

USE OF ELECTRONIC RESOURCES

10. Do you use the e-resources for your academic work? a. Yes [] b. No []

11. If 'Yes' how long have you been using the e-resources?

a. Less than 1 year [] b. 1 year [] c. 2 years [] d. more than 2 years []

12. What do you use the e-resources for?

a. Assignment [] b. Research/project work [] c. Expansion of my knowledge base []

d. Bibliographic management (To properly cite and reference materials) []

e. Other (Specify)

13. If 'No' what is the reason?

a. Inability to retrieve information using e-resources []

b. Lack of awareness of e-resources []

c. I prefer to use print materials due to my limitations with the use of technology []

d. Complicated access []

e. Perceived unreliability (Mistrust of not finding accurate and reliable information) []

f. Discomfort reading digitally []

g. Other (Specify)

SECTION D

EASE OF USE OF ELECTRONIC RESOURCES

14. How easy is it for you to access electronic resources?

a. Easy [] b. Very easy [] c. Neutral [] d. Difficult [] e. Very difficult []

15. I can easily narrow down search results on electronic databases using search features.

a. Agree [] b. Strongly agree [] c. Neutral [] d. disagree []

e. Strongly disagree []

16. On a scale of 1-5, how would you rate the overall ease of use of electronic resources?

(with 1 being less easy to use and 5 being most difficult to use)

a. 1 [] b. 2 [] c. 3 [] d. 4 [] e. 5 []

SECTION E

ATTITUDE AND BEHAVIOUR TOWARD THE USE OF ELECTRONIC RESOURCES

17. Electronic resources are important to your ability to carry out studies and research?

a. Important [] b. Very important [] c. Neutral [] d. Not important []

e. Not very important []

18. I prefer using e-resources over print resources.

a. Agree [] b. Strongly agree [] c. Neutral [] d. Disagree []

e. Strongly disagree []

19. What is/are the significant benefits of electronic resources to students? (*Select all applicable*)

- a. Convenience of use [] b. Up-to-date content []
- c. Simultaneous access (Multiple use by students at the same time) []
- d. Cost efficiency [] e. Improved discovery of relevant materials []
- f. Other (specify)

SECTION F

LEVEL OF SATISFACTION WITH THE USE OF ELECTRON RESOURCES

20. Overall, how satisfied are you with the use of electronic resources?

- a. Satisfied [] b. Very satisfied [] c. Neutral [] d. Dissatisfied []
- e. Very dissatisfied []

21. How would you rate the depth and coverage of content in the electronic resources relating to your subject area?

- a. Excellent [] b. good [] c. Fair [] d. poor []

22. How likely are you to recommend others to use electronic resources?

- a. likely [] b. Highly likely [] c. Neutral [] d. Unlikely []
- e. Highly unlikely []

23. What aspect of the e-resources are you most satisfied with?

- a. e-books [] b. e-journals [] c. e-databases [] e. CD-ROMS []
- f. Other (Specify)

SECTION G

CHALLENGES TO THE USE OF ELECTRONIC RESOURCES

24. Are electronic resources readily available when you need them?

a. Yes ☐ b. No ☐

25. What are some challenges you encounter with the use of electronic resources?

a. Slow access speed ☐ b. Lack or inadequate searching skills ☐

c. Restricted access ☐

d. Information overload (Provides more information than I need or can use) ☐

e. Not easy to use ☐ f. Power cut ☐ g. Other (Specify)

36. Comments

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Thank you for your time

