

**USE OF E-BOOKS: PERCEPTIONS OF THE ACADEMIC STAFF IN THE  
COLLEGE OF HUMAN SCIENCES AT THE UNIVERSITY OF SOUTH AFRICA**

**by**

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## **DEDICATION**

My mother, Sibongile Betty, my brother, Sibusiso Emmanuel; my son, Onkgopotse Siphokuhle and my late father, Moses Joni Mdluli.

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## DECLARATION

**Student number: 47214317**

I declare that: **“Use of e-books: perceptions of the academic staff in the College of Human Sciences at the University of South Africa”** is my work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality checking software and it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher education institution.



20 November 2019

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Celiwe Virginia Mdhuli

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Date



20 November 2019

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Supervisor: Prof. M. K. Minishi-Majanja

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Date

## ABSTRACT

The University of South Africa's 2015 strategic plan foregrounds the need for technology-enhanced learner support and the university of South Africa (Unisa) Library spends approximately 17 million rand per year on purchasing electronic resources, including e-books, in order to be in line with the strategic plan (Unisa 2012). Academic staff play a major role in collection development in that the Unisa Library Collection Developers liaise with them in developing the collection. Academics are therefore expected to show a high usage rate of these resources but the Unisa Library's January - December 2012 E-book Collections usage statistics report indicates the opposite. Academic staff from the College of Human Sciences are expected to show high usage rate because their disciplines mostly rely on books as opposed to other types of information materials. There is a perception that academic staff are not making optimum use of e-books as expected. The aim of this study was to establish the perceptions of academics in the College of Human Sciences on the use of e-books, especially in their core business of teaching and research in order to inform a well-directed strategy e-book collection in the future. The study employed quantitative methodological approach by means of a questionnaire to collect data from 452 academic staff. With a 37%, response rate the quantitative data was descriptively analysed using SPSS while the open-ended questions were summarised and quantified. The study revealed that even though a majority of academic staff were aware about the availability of e-books at the Unisa Library, only a few academic staff used them often and there were still some who never used them. The majority of academic staff found e-books more useful for research when searching for relevant specific content only as opposed to teaching and preparing coursework. The study further revealed some of the reasons for low usage of which shortage of titles in the e-format is the main reason. The study recommends that academics should collaborate with the Library to identify gaps in the e-books collection and recommend titles that should be added in order fill those gaps.

**Key words:** Digitisation; Electronic resources; Electronic books; Usage of e-books; Academic staff; Academic libraries, Accessibility of e-books; University of South Africa

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## **LIST OF ABBREVIATIONS AND ACRONYM**

BRAC	Building Resources Across Communities
CD-ROMs	Compact Disc Read-Only Memory
CHS	College of Human Sciences
COUNTER	Counting Online Usage of Networked Electronic Resources
ICT	Information and Communication Technology
JISC	Joint Information Systems Committee
MARC	Machine-Readable Catalogue
OPAC	Online Public Access Catalogue
PCs	Personal Computers
PDA's	Personal Digital Assistants
UK	United Kingdom
Unisa	University of South Africa
VTU	Visvesavraya Technological University

## CHAPTER 1

### INTRODUCTION AND BACKGROUND TO THE STUDY

#### 1.1 Introduction

Electronic resources (e-resources) have become the most crucial part of service delivery in academic libraries. Mawere and Sai (2018:2) describe e-resources as a collection of information in electronic or digital format. This includes among others encyclopaedias, pamphlets, e-journals, e-books and databases. The authors further explain that the information contained in these type of resources is accessible by means of electronic devices, such as a mobile phone, computer, e-readers, tablets and so on. Blečić, Fiscella and Wiberley (2007:26) highlight that electronic resources have become substantial component of academic library collections. This assertion is still valid to date. Kumar (2015:150) affirms that academic libraries acquire electronic format of journals, magazines and other secondary materials more often than in the past. This prompted university libraries to review the manner in which they provide access to information (Egberongbe 2011:1). Consequently, libraries had to undergo a change in collection development and their service structures as well as to allocate more of their budget towards electronic resources. As they do so, it becomes essential to gain meaningful usage by clients who utilise them. The University of South Africa (Unisa) library likewise has been making its resources electronically available in order to remain relevant, and as such, there was a need to ensure that its clients increasingly use these electronic resources. This study explored the use of one kind of these electronic resources, that is, e-books, by academic staff (academics) in the College of Human Sciences at Unisa.

Generally, clients of an academic library are grouped according to different disciplines. Library resources expected to be used for teaching and learning depend on the discipline in which these clients belong e.g. Multimedia, Visual Arts, Mathematics, Law or Archaeology. Some of the disciplines in the Arts such as Languages and Information Science and others in the Humanities e.g. Philosophy and Religious Studies rely more on physical books for conducting teaching and learning. Collins and Stone (2014:11) attest that humanities researchers mostly

depend on books to support their investigations. Nicholas, Boukacem-Zeghmouri, Rodríguez-Bravo, Xu, Watkinson, Abrizah, Herman, and Swigon (2017: 22) highlight that in the UK, USA, China, France, Malaysia, Poland, and Spain e-resources were available in all disciplines. This was also the case in the College of Human Sciences (CHS) at Unisa. The College was generally known for using books as the main source of information.

## **1.2 Conceptual setting: Electronic information resources**

Information and Communication technology (ICT) has transformed service delivery in academic libraries, through the provision of information in the electronic format. According to Mawindo (2005: 11) electronic resources refers to information sources available in the library in electronic format, which may be among others journals, books, databases, and CD-ROMs. Johnson, Evensen, Gelfand, Lammers, Sipe, Zilper, Fronty, Hafner, Mansfield, Schmolling (2012:3) briefly defines electronic resources as materials that can be accessed remotely via internet through devices such as personal computers, mainframe, or handheld mobile devices, with e images and e audio/ visual resources also forming part of these materials. According to Shariful (2011:1) electronic resources came into being as a result of digitisation, which is primarily the process of converting written and printed records into electronic form. This process is capable of converting text for an example journal article to PDF to make it digital. That is, an image is scanned to an image file and /or audio and converted from analogue to digital or a combination of these multimedia into electronic form. Some information resources are created digital e.g. digital photography whereby an image is captured and stored as a computer file or digital audio which is converted into a digital form or books compiled in computer format and uploaded in the web, usually referred to as e-books. The communication of these electronic resources is via the internet.

Academic libraries all over the world have adapted to this ICT development, i.e. incorporating electronic resources in their collections. Sampath -Kumar and Kumar (2010:137-138) highlight that most of the branch libraries of Bangalore City University in India also adapted to the provision of information in the electronic format. This was

done in order to provide a better service to their users. Min and Yi (2010:317-319) state that Tsinghua University library in China also made a transition from a traditional library, which is characterised by physical collection and manual methods of service delivery to its clients, to a modern technology library characterised by digital resources. This transition has led to a rapid expansion in electronic resources that this library subscribes to and as a result enabling more access to library's resources conveniently, safely, anytime and anywhere. E-book is one of these modern resources.

### 1.2.1 Electronic books: definition

Vassilliou and Rowley (2008: 363) define an e-book as “a digital object with textual and/or other content, which arises as a result of integrating the familiar concept of a book with features that can be provided in an electronic environment”. Examples of these features are search and cross reference functions, hypertext, bookmarks, annotations, highlights, multimedia objects and interactive tools. Tedd (2005: 58-59) highlights in his definition that some e-books are “born digital” i.e. were never printed. The researcher of this study notes that the definition of e-books constantly changes to keep up with the latest technology. Vassilliou and Rowley (2008:364) confirm that the definition of an e-book, paying more attention to features, specific reader or access technology, needs to be continuously revised due to changes in technology. They argue that due to advances in technology many earlier definitions have become outdated and declare that the e-book concept is dynamic in nature because it has to reflect the beneficial features of the level of technology from which it is derived (Vassilliou and Rowley 2008).

### 1.2.2 Origin of e-books

The term “electronic books” was coined by Van Dam at Brown University in Providence in the state of Rhode Island (Rathinasabapathy, Rajendran and Balachandran 2009: 520). Accordingly, its origin is said to date back to the 1960s, when it began as part of the e-publishing phenomenon. Kumbhar (2018:162) states that the concept came into existence a little later than e-journals. Some projects were

implemented in support of e-books' existence. The Gutenberg Project, founded by an American, Michel Hart, is one of these projects. In the 1970s e-books became popular when the Gutenberg Project first made digitised versions of books that were made freely available to the public (Pelle 2009: 13). In 1971 a project for generating electronic books for print works that had no copyright law restrictions within United States was started. This was followed by the Gutenberg Project of Australia which provided access to e-books that were publicly accessible in Australia and were specifically of Australian interest. In 1976 the Oxford Text Archive was established in the United States to provide electronic texts for research and scholarly teaching needs (Pelle 2009:13). Pelle (2009:13) further states that in the 1990s, e-books for use with personal digital assistants (PDAs) and handheld devices emerged. One of the definitions of e-books of that time was, handheld computerised devices with high resolution screens intended to serve as storage devices for literary works that can be digitally distributed easily over the internet.

### 1.2.3 Development of e-books

E-books have continuously gone through a process of development and improvement since they emerged, especially in terms of accessibility and availability. This can be confirmed by tracing how they existed and the devices that were initially used for accessing them when they first appeared. The international overview that was done by Tedd (2005:57) for tracing the development of e-books in academic libraries indicated that in the 1980s and 1990s multimedia objects like dictionaries and encyclopaedias were published on CD-ROM, which were held on personal computers. The end of 1990s marked a turn in the e-books' fortunes as many e-books were made available for use by Personal Digital Assistants (PDAs). Manufacturers also developed specific handheld devices to display text in the book form. The book could be accessed via the internet and the World Wide Web, which increased more interest in using the e-book. More than 100 000 titles available through the Gutenberg Project (Pelle 2009). This includes more than 20 000 e-books that were made available for the public domain (Pelle 2009).

E-book publishing has grown to such an extent that many publishers are involved in this form of production globally (Tedd 2005). The author further asserts that academic

libraries globally were also showing interest in this form of publication by converting their print books into the electronic format. Similarly, in the late 2004 Google Print also launched a project for the conversion of millions of books into the electronic format and they became e-books (Tedd 2005). This was done in the university libraries of Michigan, Harvard and Stanford in the United States, the Bodleian library in Oxford and New York Public Library. These e-books now form part of the electronic collection in the catalogue of these libraries because they are listed, together with other electronic sources such as e-journals, and bibliographic databases. The interest in use of e-books have grown during the years 2004 to 2005. This is shown by the number of courses and workshops about e-books that were held in the UK, Library and Information Association of South Africa, workshop about e-books that was part of European Library Automation Groups annual seminar at Geneva and workshop funded by UNESCO that was held in Bangalore in India in 2004. E-books are now available on once off purchases or per use via special licence models and are sometimes purchased in bundles of e-book titles.

#### 1.2.4 Importance of e-books for libraries

The provision of books in electronic format assists libraries in general to meet the needs of diverse users. Junus (2012:22) established that e-books have a potential to provide access to information to users with print disabilities. This is dependent on the type of devices they use. The visually impaired can read e-books on devices such as braille, screen magnifiers, screen readers and others.

The provision of e-books is assumed to improve accessibility to resources in libraries in general. Stokker and Hallam (2009) mention that the accessibility of online full text in Edith Cowan University library in Western Australia transformed an existing traditional method of information retrieval for their clients. Armstrong and Lonsdale (2009) highlight that e-books meet the needs of remote students in terms of short term loans or no loan collection. Vassillio and Rowley (2008:359) also state that in Manchester Metropolitan University library in the UK, the availability of e-books eliminates manual packaging and other physical processing such as shelving and physical circulation of a book. This provides clients with instant access to these sources. They also provide access to out of print essential materials. Joint Information

Systems Committee (2009) also affirms that e-books offer equal access during the time when particular titles are in demand. The course text e-books are also a solution to short loan collections because users can be able to access and return the e-book from anywhere and anytime. For this reason, complaints are reduced and client's satisfactory level is increased.

The researcher of this study is of a view that it is vital that libraries adapt to acquiring books in the electronic format in order remain relevant to their users. Janke (2011: 154) declares that publishers are now adapting to publishing and distributing their content digitally, with e-books as part of this digital content. Gray (2011: 09) warns that users will resort to other information service providers if libraries do not cater for electronic texts that users demand. Thus, Ahmad and Brogan (2012: 189) acknowledge that at Edith Cowan University library the acquisition of e-books became important in many academic libraries due to the advances in technology.

Ahmad and Brogan (2012) think e-books also provide acquisition benefits for academic libraries. According to Armstrong and Lonsdale (2009) the acquisition of e-books in the UK university libraries is replacing the traditional form of acquisition. This is because e-books meet the needs of the remote clients and also there is no need to acquire multiple copies. The researcher assumes that the benefits of acquiring books in the electronic format also encourage libraries to grow their collections much quicker. This is evident in Stokker and Hallam (2009) who mention that in Queensland University of Technology, e-books' acquisition accounted to 20% of the monograph budget in 2008. Huthwaite, Cleary, Sinnamon, Sondergeld & McClintock (2011:2) show that Queensland University of Technology Library spent 50% of the budget on e-book acquisition in 2010. According to Ahmad and Brogan (2012: 190) Council Australian University libraries (CAUL) show an increase of 512.3% from 2008-2010 and a further increase of 61.9 between years 2009-2010.

Vassilliou and Rowley (2008:359) note that collection management at Manchester Metropolitan University library is made easier with the usage of e-books. Most e-book suppliers provide free MARC record which is a machine- readable bibliographic record. Ghaebi and Fahimifar (2011:789) also affirm that at Alzahra University Tehran in Iran, it is easy to select a desired format (PDF/XML) and selection is much quicker in e-books. It is unlike print which involves selection criteria to decide on whether to

select paperback, paper book and or hardback. Vassilliou and Rowley (2008) in the same publication titled “The progressing definition of e-books” mention that suppliers allow libraries to stock a number of titles in individual subjects through appropriate licensing models.

However, Harris (2018) maintains that the collection management of e-books at the Unisa library is not as easy as stated above by Vassilliou and Rowley because one still has to make a decision on subscription models. For an example, single user access model or multiple user access model this includes ownership or subscription model or short term model and or a combination. Some of the titles only permit single user model, which then comprises multiple access to e-books. However, the Library always makes an effort to select titles that are on multiple user model for simultaneous access, thus reducing the cost of purchasing multiple copies for a single title. Harris (2018) also stresses that e-books are expensive to purchase but Unisa library purchase through a consortium. The consortium negotiates lower prices and re-negotiates the licencing agreements for e-books packages of the members of the consortia. Unisa library also regard an e-book as a cheaper resource to buy because it also eliminates the costs for shipping, buying tattle tapes and handling costs.

Vassilliou and Rowley (2008: 359) state that suppliers of e-books at Manchester Metropolitan University library also provide institutions with COUNTER (Counting Online Usage of NeTworked Electronic Resources) statistics. This provides for the possibility to make dynamic decisions in developing the collection based on the usage rate. Ghaebi and Fahimifar (2011:787) acknowledge that it is easy to monitor e-books usage rate by means of retrieving daily statistics. At the Unisa Library, daily statistics are easily tracked by checking a number of times a specific e-book title was downloaded. This provides an idea on which subjects are the most visited, which contributes during making selections decisions.

#### 1.2.5 Use and usefulness of e-books to academics

The researcher thinks gender and age differences might influence the choice of reading from the screen. Rowlands, Nicholas, Jamali and Huntington (2007: 497) note that at University College of London (UCL) academics strongly prefer reading from

the screen rather than from paper. This also has to do with gender differences, where men were found to be more likely to read from a screen than women. Only a small population aged 65 and over have shown much interest on reading from the screen. The insertion with regards to gender differences is no longer valid nowadays, Scullin (2015: 51) established that usage of e-books between men and women does not differ greatly.

According to Hoseth and McLure (2012: 284) one academic staff at Colorado State University Libraries expresses that e-books can be useful for conducting research. However, Mulholland and Bates (2014: 495) state that academic staff in Further Education (FE) colleges throughout Northern Ireland mainly use e-books for research, as compared to teaching and leisure. The researcher of this study thinks that this might imply that academic staff find e-books more useful for conducting research as compared to other purposes. However, Enright (2014: 22) points out that the US faculty survey shows that e-books play an integral part in both research and teaching.

One of the milestone publications regarding the use and usefulness of e-books by academics is the 2008 article by Carlock and Perry entitled "Exploring faculty's experiences with e-books: a focus group". They conducted a study at Arizona State University Libraries to discover faculty's perceptions and use of e-books in their research and teaching. In this article they observe that Arizona State University academics, when asked if they do use e-books as class textbooks, only History and Industrial Design responded that they did but their main concern was reliability. The history professor was uncertain whether students would experience access problems when e-books are the recommended source for a particular assignment. The history professor is under a view that the use of e-books has the potential of enabling students to justify their reason for not meeting submission deadlines or not submitting at all. The Industrial Design professor overcame this by teaching students how to access e-book in class. In spite of that the professor still received some dissatisfaction about using e-books. There was a concern about the viewing time that is only limited to specific pages and then expires, requiring one to keep logging in another 24 hours.

E-book content usage differs per discipline. This is influenced by the manner in which content is presented. In general, content presentation in printed books and e-books

is different. Some refer mostly text and essays for content and some require more graphics and images to supplement their content. This is the same with the usage of e-books. Carlock and Perry (2008:247) discovered that Graphic Design professors perceive that the manner in which graphics are presented in e-books is not good. These professors said e-books might be useful for other parts of their work except graphics.

Carlock and Perry (2008: 247) found that the rate and frequency of e-book usage differs by disciplines. Levine-Clark (2008) mentions that in 2007 at University of Denver, the frequency of use in humanities, business and social science was greater than in the science faculty. Furthermore, the study to measure level of frequency and usage rate between humanities and the overall university population conducted by Levine-Clark found that humanities showed lower usage of e-books compared to the university as a whole. Print is still preferable in humanities, with a higher usage rate than other disciplines. This implies that the disciplinary content usage can also not translate to a greater usage rate. It is said that graphics are not well presented in e-books. Although humanities do not rely on graphics, they do not show high usage rates of e-books.

Foote and Rupp-Serrano (2010) conducted a study at the University of Oklahoma. They listed academics' experiences of e-books in their findings. The academics indicated that e-books are useful for initial research, fact checking, capability to link e-books inside a course management system, accessibility and portability. Hoseth and McLure (2012: 282) found that in Colorado State University libraries, faculty members commented on: *instant availability because the turnaround time from author to publisher is shorter ability to cut and paste, space saving because are stored in a computer, one can choose to read a specific section of the e book by means of browsing using a dropdown menu in a computer, are portable one does not need to carry a book physically.* Cox (2004) highlighted that at Arizona State University the faculty have some uncertainties about downloading, printing, bookmarking and e-mailing the content. Anuradha and Usha (2006:59) state that at the Indian Institute of Science the common disadvantages experienced by academics were that e-books are hard to read and browse. Some are used to reading from a printed book and are not prepared to adapt to reading from screen (Anuradha and Usha 2006:48).

Hemminger (2007: 2205) states that at the North Carolina University at Chapel Hill the transition to primarily electronic communication has the potential to significantly change the ways scholarly communication takes place. These changes range from the convenience of accessing electronic material on the reader's desktop, through the speed at which scholars can communicate new information, to accessibility to larger amounts of the material, and finally to the corresponding problem of sifting through larger amounts of potentially useful materials.

Brown and Swan (2007) maintain that in the UK there is a growing reliance on online, web resources and on nearly total electronic communication as well as online research, interdisciplinary work and cross-institutional collaboration which strengthen the growth in e-science practices.

According to Tripathi and Jeevan (2008: 104) in a study they conducted at Indira Gandhi National Open University Library in New Delhi, India (a distance university in India) "...librarians decided to reach the unreached distance learners, as far as possible, through electronic collections by subscribing to e-journals, e-databases and e-books".

E-books are books that can be viewed in the electronic environment (Vassilliou and Rowley (2008: 363). Some e-books are digitised versions of printed books, while others are "born digital" (Tedd 2005: 62). The e-book concept became a reality in the 1970s, when Project Gutenberg, founded by Michael Hart, started digitising print books. In the 1980s dictionaries and encyclopaedias became accessible on personal computers via CD-ROMs. In the late 1990s e-books were made available via devices called Personal Digital Assistants (Tedd 2005: 57). According to Pelle (2009:13), in the late 1990s interest in e-books grew when they became accessible via the World Wide Web and the Internet. Vasileiou, Hartley and Rowley (2009: 173) attest that technological developments as well as the Internet has altered the nature and accessibility of digital content, thus creating new opportunities for the publishing industry. Pelle (2009: 14) attests that nowadays there is a huge number of e-books available in a variety of subjects. According to Stokker and Hallam (2009:563) the availability of e-books in academic libraries is significant because this is globally the new approach to information retrieval and academic libraries have to be relevant.

E-books can be made available 24/7 and so are beneficial to remote students anywhere, anytime. One can also access materials that are no longer available in print (Vassiliou and Rowley 2008 and Armstrong and Lonsdale 2009). E-books do not require shelving space and thus are important for academic libraries, which face the growing problem of a lack of housing space for collections of physical books. Bailey, Scott and Best (2015:12) confirm that at Auburn University the move to e-books was influenced by the need to save space. Moreover, the shift to publishing in e-format only is putting pressure on academic libraries to acquire digital resources, with e-books being one such e-resource. This study will be contextualised in a particular setting, that of an academic library of an open distance learning university (ODL).

### **1.3 Contextual setting**

Academics are faced with a challenge of adopting and adapting to technological advances in order to remain relevant globally. Unisa academics have to integrate these technological changes in their teaching and research because one of the key strategies of Unisa is to “establish service-oriented technology-enhanced learner support to increase retention and throughput” (Unisa: 2012). To fulfil this strategy, Unisa is moving towards e-learning in order to remain globally relevant. The Unisa Library, in support of the Unisa strategy, has embarked on ensuring that e-resources such as e-books are available for academics and students by shifting its paradigm.

Currently more funds are allocated for the acquisition of e-books than printed books. E-books form an essential part of Unisa library’s operations. Cataloguers at Unisa library are also prioritising the cataloguing of electronic books. The library does this to be in line with the Unisa’s strategic plan. One of Unisa’s strategic objectives and key strategies is to establish service-oriented technology enhanced learner support (Unisa 2012). Amongst Unisa’s library clients are clients living with disabilities. The use of e-books at Unisa library acts as a support mechanism for clients of this category and other students. Clients do not need to visit the library physically because this resource is instantly accessible anytime and anywhere. Registered students instantly gain access to an e-book. Unlike with print book where a client has to sometimes put

a hold and be on a waiting list for accessing an item, with e-books there is no waiting period for accessibility.

The system that Unisa library uses to identify clients who accessed e-books is authentication and confidentiality. This authentication implies that it is possible that the system can also reveal the e-book usage rates of any other Unisa clients, namely Unisa students, clients from any other Unisa colleges and academics from other Unisa colleges. There are no restrictions on staff members of other colleges accessing other colleges' collections, hence it becomes difficult to specifically obtain the College of Human Sciences academics' usage statistics. This was determined by this study after conducting a survey of the academics of this College. It was for this reason that the perceptions of the academic staff with regards to the use of e-books had to be established.

### 1.3.1 University of South Africa

Unisa is the largest institution that offers open distance learning in Africa. It was established in 1873 as the University of the Cape of Good Hope and an examination board and has been offering distance education since then. It was only 1916 when it was abbreviated to Unisa (Ramasodi 2009:1). It is said to be one of the first universities that specialised in distance teaching, which it implemented in 1947 (Ramasodi 2009:1). Currently, Unisa comprises of eight prestigious colleges namely: Accounting Sciences; Agriculture and Environmental Sciences; Economic and Management Sciences; Education; Human Sciences; Law; Science, Engineering and Technology; Graduate Studies. There is also a Graduate School of Business Leadership and the Thabo Mbeki African Leadership Institute. Unisa had 4326 academics (Unisa: 2017).

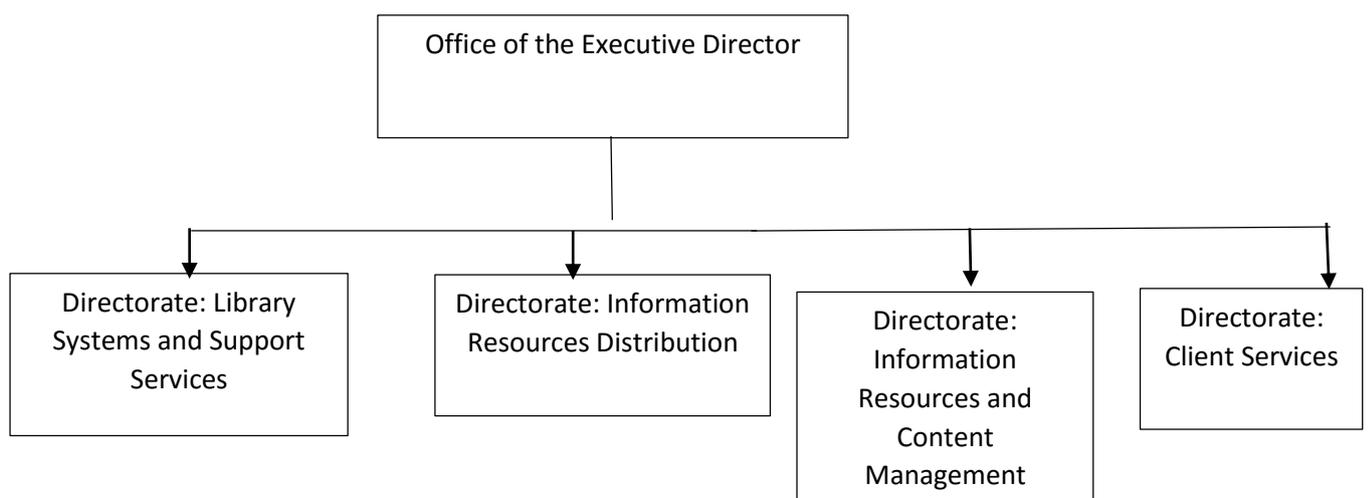
Unisa's vision is "towards *the* African university shaping futures in the service of humanity. Our vision defines everything that we do. It describes our wish to serve every country on the African continent while transcending language and cultural barriers. We are 100% committed to the communities and individuals we serve." (Unisa 2019a). University's mission is to be "a comprehensive, open distance learning institution that produces excellent scholarship and research, provides quality tuition

and fosters active community engagement. We are guided by the principles of lifelong learning, student centeredness, innovation and creativity. Our efforts contribute to the knowledge and information society, advance development, nurture a critical citizenry and ensure global sustainability” (Unisa: 2019b). Among the efforts towards the achievement of this mission, Unisa has a modern library.

### 1.3.2 University of South Africa library

The University of South Africa library (Unisa library) is situated at Unisa’s main campus at Muckleneuk in the City of Tshwane (Pretoria) but with eight branches namely: Cape Town, Durban, Ekurhuleni, Florida, Johannesburg, Polokwane, Muckleneuk and Sunnyside plus mobile library (bus) in Polokwane and in the Western Cape. Unisa library came into being in its current form in 1946 when Unisa introduced distance teaching as a mode of tuition. The vision of Unisa library is “towards the leading open Distance Library in Africa”. The mission is “the Unisa library supports Open Distance learning by: providing access to information in support of teaching, learning and research by optimizing appropriate technology developing and preserving library collections”. Unisa library values customer satisfaction, equitable access to information in all forms, fair use, innovation, intellectual freedom and quality service (Unisa: 2012).

The library has expert staff.



The structure is explained as follows: executive director, four directors, five deputy directors, four managers, and three heads of subjects. It has the following four

directorates: Information Resources Content Management, Library Client Services, Information Resources Content Distribution and Library Corporate Services. There are cataloguers, research data curator, shelf ready processors, subject collection developers, which include collection developers: e-reserves, collection developer branches, commercial digital resources, non-commercial digital resources, digital resources, archival collection, information search librarians, personal librarians, branch librarians, request processors

Unisa library is one of the largest academic libraries in Africa Unisa (2019). It offers the following services: lending services for borrowing and requesting library materials e.g. short loans, reference books, book requests, interlibrary loans, e-book services, delivery of requested material, renewing library material, returning library material, interlibrary loans, book collections; training; request literature search; research support: personal librarians responsible for research needs, research data management for organisation of data, literature search service and research skills for searching relevant material to a research topic ; research commons: an environment for Unisa researchers; Unisa institutional repository: digital archive for Unisa research output and archival and special collections services: containing very valuable and unique materials (Unisa 2019b).

According to Unisa (2019), the library has information technology services. It provides technology support services to help registered students to access library electronic resources on campus via Wi-Fi on their electronic devices. Unisa staff and Students can also gain access off-campus, membership which begins in the current academic year and expires after completion of examination of the same year, research support service whereby postgraduate students have access to all library resources and their own personal librarian. The research space is also reserved for them and assistance for clients living with disabilities whereby various services are provided to ensure that library clients with special needs have the most comfortable experience possible namely: access to wheelchairs, special parking and a sign language interpreter.

Unisa has a well-resourced library. There has been a rapid growth in this library for the last 50 years (Unisa 2014). The library has over 1.5 million items and 300 000

other items and 4 000 current periodical titles. The library also subscribed to an increasing number of electronic journals (e-journals). Both the e-journals and the growing collection of electronic books (e-books) are available to Unisa students and staff online 24/7 via the internet, regardless of the user's physical location. Personal librarians update academic staff about the availability of new e-books during departmental meetings and e-book packages that are placed on departmental LibGuides and collection developers advertise new packages of e-books in the Library catalogue.

Mvundlela (2019) indicate that Unisa library provides services to approximately 475 903 clientele globally. This includes under graduate students, postgraduate students, academic staff (academics) and researchers, distributed among the eight colleges. Considering the large number (4326) of academic staff and keeping in mind the fact that library use is sometimes influenced by type of discipline, this study will focus on academics in the College of Human Sciences.

### 1.3.3 College of Human Sciences academics

The College of Human Sciences (CHS) is one of the eight colleges of Unisa, one of the largest. CHS “offers high quality general academic and career focused distance education tuition” (Unisa 2017). It comprises of three schools, i.e. of Arts, Humanities and Social Sciences. There are nineteen departments i.e. African languages, Afrikaans and Theory of Literature, Department of Art and Music, Communication Science, English Studies, Information Science, Linguistics and Modern Languages, Anthropology and Archaeology, Biblical and Ancient Studies, Christian Spirituality, Church History and Missiology, History, Philosophy, Practical and Systematic Theology, Religious Studies and Arabic, Development Studies, Health Studies, Political Science, Psychology, Social Work and Sociology. There are also six centres namely Centre for Applied Information and Communication, Applied Psychology, Centre for Pan African Languages and Cultural Development, Khanokhulu Centre, the John Povey Centre for the study of English in Southern Africa. There are also three research institutes in the College namely: Institute of Gender Studies, Research Institute for Theology and Religion, WIPHOLD Brigalia Bam Chair in Electoral Democracy in Africa. There are also three units that are Anthropology and

Archaeology Museum, African Languages Literacy Information Museum and Unisa Art Gallery (Unisa 2017). According to Mvundlela (2019) Unisa library serves 127 academic staff from the College of Human Sciences.

The vision of this College was to be “the African college of excellence in the social and human sciences by making a continuous and positive contribution in the service of humanity.” (Unisa 2017). It strives for excellence in teaching and learning, research and community engagement that together make a positive difference in the lives of the individuals and communities that the college serves. The mission of the college is “a people-centred community of learning and practice committed to fostering a culture of learning, teaching, research and service with the intent of helping individuals and communities improve the quality of their lives” (Unisa 2017). The college also sought to realise the Africanised provision of excellence in teaching and learning, research, community engagement and academic citizenship, which is focused in teaching and learning and endeavours on open distance learning, e- learning accessibility and learner centeredness, research on multi-inter- and transdisciplinary engagement, reflexive practice and collaborative practice and community engagement as well as academic citizenship on promoting shared ethical and professional (Unisa 2013). The slogan of the Collage was “together we can make a difference” (Unisa 2017).

The College offers internationally recognised undergraduate degrees, diplomas, postgraduate degrees, and diplomas, postgraduate honours and Master’s degrees through course work and research and doctoral programs (Unisa 2013). According to the CHS Home Page, the College “has well qualified, experienced and dedicated academics in a variety of disciplines [who] continuously conduct ground breaking research and find new and effective ways of teaching and learning” (Unisa 2013). As of 2013, CHS had 452 academics comprising of 141 Professors, 15 Associate Professors, 85 Senior lecturers, 199 Lecturers and 12 Junior Lecturers (Unisa 2013).

#### **1.4 Statement of the problem**

The Unisa's 2015 strategic plan involves establishing technology-enhanced learner support. It is for this reason that the Unisa library spends approximately 17 million rand per year on purchasing electronic resources which include e-books (Unisa 2012). Collection developers purchase an e-format of recommended books when available. Academics play a major role in collection development at Unisa. They liaise with personal librarians and collection developers in developing the collection. Thus the library receives recommendations for collection development from academics. Considering all these factors academics are expected to be the regular users of these resources and usage rate is supposed to be higher than what is indicated in the statistics. However, drawing from the Unisa Library's January - December 2012 E-book Collections usage statistics report, there is a perception that academics are not making optimum use of these sources as expected. This is the report that contains the e-books usage rates of all the Colleges at Unisa, including the CHS. Furthermore, it is expected that CHS should show a higher usage rate based on their strong reliance on books as one of their study materials. Another factor is that the College of Human Sciences has a relatively higher number of academic staff compared to other colleges, i.e. taking over 29% of all academics at Unisa.

As highlighted in the literature the usage of e-books may differ, depending on the content that a particular discipline requires for teaching and learning. The reasons for low usage may be subject to coverage, for example if there are limited titles available in e-book format.

#### **1.5 Aim and objectives**

The aim and objectives of the study are as follows:

##### **1.5.1 Aim**

The aim of the study was to establish the perception of academics in the College of Human Sciences on the use of e-books, especially in their core business of teaching and research in order to inform a well-directed e-book collection in the future.

### **1.5.2 Objectives**

The specific objectives for addressing this aim are to:

1.5.2.1 determine if academics in the College of Human Sciences are aware of e-books, especially within the Unisa library.

1.5.2.2 establish the frequency that e-books are used by Unisa academics in the College of Human Sciences

1.5.2.3 determine the use to which academics in the College of Human Sciences put e-books.

1.5.2.4 determine the reasons for low usage rate.

1.5.2.5 recommend strategies that can be used to increase the use of e-books by academics in the College of Human Sciences.

### **1.6 Research question**

1.6.1 Are academics in the College of Human Sciences at Unisa aware of e-books' availability at the Unisa library?

(a) What (if anything) can the Unisa library do to inform academics in the College of Human Sciences about the availability of e-books in order to increase their utilization?

1.6.2. Do academics in the College of Human Sciences use e-books?

1.6.3. How do academics in the College of Human Sciences currently use e-books for academic purposes?

1.6.4. What (if there is anything) do academics in the College of Human Sciences dislike about using e-books?

1.6.5 What can the Unisa library do to increase the use of e-books by academics in the College of Human Sciences.

### **1.7 Significance of the study**

The study of e-books usage rate by academics in the CHS is significant because it revealed the specific usage rate by the academics in this college, which the library's statistical/reporting systems cannot reveal because the authentication is confidential. Technology is globally evolving and higher education is also part of this revolution internationally. For this reason, academics are faced with a challenge to integrate these technological innovations in their teaching and learning in order to remain globally relevant and to make their students part of the world of technology. The

perceptions of Unisa academics, who are also part of this challenge as Unisa moves into e-learning to remain globally relevant as a distance university, are important. E-books being one of the materials used in this learning system. The findings of this study are expected to support the Unisa library in providing a well-directed e-book collection to its clients. This will enable the Unisa library to invest more knowledgeably in e-books.

### **1.8 Scope and delimitation**

The study was based on the views of academic staff of the Unisa College of Human Sciences, who represent only one of the eight colleges that comprise Unisa. The results may therefore not be unilaterally representative of the entire University, especially considering discipline-based tendencies in the use of library resources in general.

### **1.9 Definition of terms**

**Academic staff:** are defined as academic professionals who are responsible for planning, directing and undertaking academic teaching and research within Higher Education institutions. Colloquially referred to as “academics” they also include vice-chancellors, other senior academic managers, medical practitioners, dentists, veterinarians and other health care professionals who undertake lecturing or research activities (Higher Education Statistics Agency 2008/9 to 2017/18).

**E-books:** Vassiliou and Rowley (2008: 363) define the e-book as a digital object with textual and or other content which resulted from integrating the familiar concept of a book with features that can be accessed in an electronic environment. Vassiliou and Rowley assert that e-books typically have in use features such as search and cross reference functions, hypertext links, bookmarks, annotations, highlights, multimedia objects and interactive tools.

**Perceptions:** Ihde (1999) defines perception as “the way in which reality can be presented for humans”.

## **1.10 Dissertation Structure**

Chapter one introduces the study with the following components: background, statement of the problem, research questions objectives and significance of the study, definition of key terminology.

Chapter two discusses literature related to the topic of e-books, explains concepts such as digitisation, e-resources and e-books, historical development on emergence of e-books, advantages and disadvantages of e-books and also provides critical evaluation of existing theories

Chapter three focuses on research methodology. Previous research was evaluated on research design measures, methodological weaknesses. This was based on academics' awareness, usage and perception about e-books.

Chapter four covers the analysis and interpretation of this study

Chapter five covers the discussion of the findings of this study

Chapter six provides the summary, conclusions and recommendations of the study

## **1.11 Summary of chapter 1**

Chapter 1 has provided a background to this study on the use of e-books perceptions by academic staff in the College of Human Sciences. In this chapter, the problem statement, research question, aims, delimitations and significance of the study have been discussed. This includes conceptual and contextual setting. A brief outline of the sequence of chapters have been mentioned. The next chapter discusses next chapter discusses digitization and the emergence, advantages and disadvantages of e-books. It discusses global overview on awareness, perceptions and the usage of e-books by academics in other universities.

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews various studies and literature focusing on the emergence of electronic information resources as well as the notion of digitisation and e-books. In particular, it looks at factors such as academic staff awareness, adoption, interaction, perceptions, frequency of use, and accessibility of e-books. It is also noted that this topic is not widely covered in the South African context.

#### **2.2 The emergence of digitisation in libraries**

The evolution of information technology not only impacts on teaching and learning, but also affects information production, management and delivery. Sangra, Vlachopoulos and Cabrera (2012) observe that technological advances have brought about new learning methods in universities globally such as e-learning. E-learning is a new learning method whereby education is delivered online by means of web-based techniques. The development of these learning methods ultimately impacts on libraries because libraries have to provide access to a myriad of information sources in order to remain relevant in the current technologically driven age. The evolution and proliferation of information technologies has brought about the emergence of digitisation. This has enabled many libraries to convert what were initially hard-copy information resources into electronic resources. In addition to these conversions, there has been marked growth of e-resources in libraries which has enhanced the availability and accessibility of information resources by providing global and virtual platforms for information delivery and use. This means that the production and delivery of new publications has become easier and quicker as a result of both the in-house development of electronic sources in addition to those that are purposefully or originally produced as electronic sources.

As a consequence of the evolution of information technologies, the information domain expanded as large quantities of electronic information resources were produced and thus creating the digital library. Harris (2019) defines digital library as a

library where the collection and services are in a digital form and or accessed digitally. Collection can either be “born digital” (created in a digital form originally) or scanned or otherwise copied from physical artefact. Parida (2004:199-204) observes that digital libraries have several benefits, as users have access to diverse information including text, image, map, sound, video and multimedia in the electronic format.

### 2.2.1 Significance of digitisation

The benefits of digitising information in libraries are enormous. Digitisation has the potential to make local content known to the world and vice versa (Fakoti 2007). The author opines that digitisation is the best practice for disseminating local content to the wider global community thus, breaking physical barriers such as geographical boundaries. In support of the statement by Fatoki, Igbeka and Ola (2008:1) explain that in Nigeria, the Kenneth Dike Library is regarded as the library that holds a major collection of research relating to Africa, including Africana materials and theses. Considering that, the digitisation of the Kenneth Dike Library’s collection was viewed as having the potential to extend access to African indigenous information and knowledge. Igbeka and Ola then conducted an investigation on the possibility of digitising these resources in order to enhance as well as increase their visibility and utilisation, thus empowering Africa within the global information sphere. Shariful (2011:1) claims that digitisation narrows down the ‘digital divide’ between the have and have-not within the country, between individuals, developing and developed countries, those who speak English and those who cannot, digital elite in urban and rural in terms of digital development itself.” This is critical in the knowledge society.

Digitisation also increases the sharing of scarce resources that were previously less used because of their scarcity. According to Fatoki (2007), digitisation provides the sharing of the previously unexploited resources on the continent. Chisenga (1999) rightly observed that much of the scientific research output produced in Africa which would help provide raw materials needed for further research and development of most countries, is largely unpublished information and knowledge resources. Many of them are only available in the form of research reports, theses and dissertations, seminar or conference papers. These kinds of research outputs are produced in

limited numbers and are therefore unlikely to reach wider audiences. As a result, valuable technological and scientific information and knowledge remains unexploited and is sometimes lost.

Although the process of digitisation is still at the development stage in some of the developing countries, it is at an advanced stage in first world countries. This is confirmed by Parida (2004:199-204), when he says that developed countries have advanced the digitisation of their libraries while some developing countries are still in the process of digitising their libraries. He contends that developing countries have limited resources and for this reason, each library determines which of their materials they will digitise. Eventually through prioritisation, only rare and valuable documents are digitised. It is clear that the process of digitising library collections is still evolving at a slow pace in some parts of the world. For instance, Chauhan and Chopra (2011:137) affirm that the digital library in India is still in its infancy as only a few libraries are involved in a complete digitisation of manuscripts and rare books and none has digitised bound journals. They further state that only three university libraries are currently digitising their theses and dissertation collections. It has emerged from the literature that not even a single library digitises historical items, university documents, photos, paintings, video recordings, university publications or microfilm collection.

Generally, digitisation is viewed as important only for those university libraries aiming at digitising manuscripts, theses, dissertations and special collections, which are special in nature and very useful for users (Chauhan and Chopra 2011:137). Digitisation is a process and a continually expanding project that transforms a traditional library into a digital library. Digitisation can be traced back to the late 1980s when British government documents were indexed and scanned at the University of Southampton Library (Joint Information Systems Committee 2011:1).

Since then the process has expanded tremendously and libraries globally have begun to be involved in the digitisation of their library material. There is evidence that private and academic libraries have been in the forefront of the drive to digitise collections. This is understandable because these libraries are better placed in terms of resources and their library clientele's ability to adopt digital technologies and systems. Bawack

(2019: 3) attest that “electronic databases, digital and institutional repositories are occupying virtual space of academic libraries today”.

### 2.2.2 Impact of digitisation and e-resources on libraries

Mallapur and Naik (2009:1) opine that the digital era deprives libraries of being regarded as sole custodians of information by providing access to these information resources in digital format in many other platforms outside of libraries. This means that libraries have competitors that can make information available to users easily and quickly, therefore to survive libraries need to redesign their service provision in order to meet challenges of the 21st century. Martin and Quan-Haase (2013:1016) mention that the design of libraries has therefore been converted from traditional, with only print books, to modern, with digital resources.

Mallapur and Naik (2009:1) claim that in Dharwad the digital era has not only changed the format in which information is provided but also changed how users seek and access information. They note that library users will be directly affected by digitisation because they need to adapt to and adopt the new technologies. However, Bawack (2019:4) declares that academic libraries and librarians have no option but to adopt this change and transition if they want to remain relevant. Mallapur and Naik (2009) further observes that users in Dharwad sometimes prefer alternative, more convenient and qualitative sources of information. As a result, the library is faced with the challenge of deciding when to start digitising and what to digitise. This leads to resources being made available in a hybridised form i.e. print and electronic, with this type of a library therefore being referred to as a hybrid library. The conversion also involves a change in resource allocation because there needs to be a balance between print and electronic resources in order to meet the needs of diverse users. It in turn impacts on operations, services and skills possessed by professionals in these libraries so as to reflect that trend. It has emerged from the literature that another problem associated with digitisation has to do with the computer skills of librarians and of library users in particular. This is evident in Igbeka and Ola (2008:1), who affirm that lack of expertise is one of the challenges in implementing a digitisation project in the Kenneth Dike Library. Choi, Rasmussen, Nonthacumjane (2009) allude to this in

stating that the digital era requires an environment that embraces digitisation and the latest web technologies.

It is vital for libraries to have a suitable information technology infrastructure before starting a digitisation project. Fatoki (2007:18) mentions that digitised content can be integrated with the library management software through the Online Public Access Catalogue. Fatoki (2007: 18), however, establishes that some library systems are not flexible enough to allow the integration of digitised content with library management software through the Online Public Access Catalogue.

The study that was conducted by Igbeka and Ola (2008) on the other hand, reveals that one of the challenges that can hinder the feasibility of embarking on digitisation in the Kenneth Dike Library in Nigeria is lack of funds to purchase equipment and software and also difficulties with IT infrastructure. This implies that affordability can also be a major reason why libraries do not embark on digitisation.

Libraries also need to conduct thorough research prior a digitisation project, if this is done thoroughly it can lead to the emergence of the new services in libraries. Igbeka and Ola (2008:1) shows that in the Kenneth Dike Library in Nigeria the digitisation process was embarked on by investigating how the existing print collection was being utilised. This resulted in the digitisation of the African collection, which included Africana materials as well as theses. This means that the digitized resources become electronically available after being digitized. Digitization therefore enables libraries to provide electronic services. Shariful (2011:4) reports that Building Resources Across Communities (BRAC) University Library created an institutional repository to promote e-library services. The purpose was to ensure access to the e-resources for the teachers, students and researchers of BRAC University and other institutions.

### **2.3 The concept of e-resource**

Technological evolution demands that libraries review their service provision. According to (Hawthorne 2008:2), developments in technology made library professionals in the US to recognise a need for automation and also for a supporting data standard. The first version of Machine Readable Catalogue (MARC1) was then introduced to libraries as one of the major developments that took place in the 1960s.

This format changed how library resources were processed and accessed. He mentions that in the 1980s libraries used CD-ROMs to provide access to databases that contained e-resources. This method of service provision had access limitations because only one user can gain access to a resource at a specific workstation. This seems, however, to have improved in the late twentieth century. Each technological development in e-resources is now centred around a more direct, convenient and friendly way of providing access to the user (Hawthorne 2008:2).

Ever since e-resource emerged, libraries have been allocating more of their budget to the purchasing of e-resources. Fuller, Livingston, Brown, Cowan, Wood and Porter (2009:287-288) mention that the University of Connecticut libraries (hereafter UnConn libraries), like Unisa, invest heavily in electronic resources, in terms of both dollars and staff time, i.e. time spent on training staff and on describing and managing these resources.

Sampath-Kumar and Kumar (2010:138) notes that e-resources have become an increasingly substantial component of academic library collections over the last decade. The researcher assumes that the emergence of e-resources is beneficial on the part of both libraries and the staff. Adeyinka (2011:32) found that job simplicity is one of the advantages that the emergence of e-resources brings to libraries. This is because they do not involve manual handling, processing and maintaining. The acquisition and maintenance of e-resources is easier and cheaper. He notes that e-resources deteriorate if they are stored in outdated computers that cannot be transferred to the latest technologies. They can, however, last for longer if necessary protective measures like firewalls, passwords and backups are put in place in order to prevent viruses. He also highlights the fact that e-resources save space in the library because are stored in a computer and therefore enough space remains on library shelves for printed materials.

### 2.3.1 Awareness of e-resources

Sampath-Kumar and Kumar (2011:138-142) conducted a survey to investigate whether Indian academics, students and faculty are aware about the availability of e-resources. Though some academics came to know about e-resources through trial

and error and some through the advice of friends, the method of awareness differed according to the subjects. Despite that, Sampath-Kumar and Kumar state that electronic information resources are attracting readers' attention in today's networked environment. This is evident in Egberongbe (2011:4), who mentions that the majority of lecturers at the University of Lagos in Nigeria are aware of the availability of e-resources. In contrast, authors like Fuller et al (2009) show that there are libraries that have a large percentage of users who are unaware of the availability of e-resources. Fuller et al (2009:287-288) establish that faculty at UnConn libraries still use a few databases which they knew while in graduate school.

### 2.3.2 Users' attitudes towards e-resources

Egberongbe (2011:4-7) shows that the majority of lecturers preferred using e-resources as compared to traditional resources i.e. print resources. On the other hand, Min and Yi (2010:320-323) reveal that even though academics at Tsinghua University Library do use e-resources for their academic work, most of them interact with e-resources as a supplement to print sources. In contrast the Indian academics prefer reading articles on the screen, according to Sampath-Kumar and Kumar 2010 (139-143). This is seen in Sampath-Kumar and Kumar (2010:138-140), who state that academics in India use e-resources for different purposes e.g. for finding research information. Puttaswamy and Krishnamurthy (2014:50) indicate that at Visvesavraya Technological University (hereafter VTU) e-resources are mostly used for research and lecture preparation. Sampath-Kumar and Kumar 2010:139) establish that electronic journals in particular are mainly used to support research and teaching needs. It also transpired that most lecturers and research scholars at the University of Lagos rely on e-resources to gain desired and relevant information. Statistics show the greatest usage rate is for popular and well-known e-resources, although a lower usage rate was noticeable on e-research reports.

Academics also used different search techniques i.e. different keywords, different access keys, advanced search, stop when no search results (Puttaswamy and Krishnamurthy 2014: 53).

### 2.3.3 Users' perception of e-resources usage

Users perceive e-resources as information sources that bring information retrieval benefits to users. This is evident in Egberongbe's study (2011: 6-7), who indicates that a majority of lecturers at the University of Lagos regarded e-resources as time saving (this means time to go to the library), half of lecturers regarded them as easy to read and a lower number of them regarded e-resources as useful. Min and Yi (2010: 320-323) relate to this statement in an online survey that they conducted in Tsinghua University library to discover faculty and students' satisfaction with e-resources. They reveal that faculty and students have shown confidence in and are satisfied with the academic e-resources to which the library subscribes. Other advantages are noticeable in Adeyinka (2011:30), who indicates that e-resources provide reliable communication. He further adds that they offer research comfort ability because a researcher can gain access remotely to more resources simultaneously. Access was also reported as easier and faster. Sampath-Kumar and Kumar (2010:139-143) affirm that in India, a majority of respondents found these resources easier to locate.

However, in a study that was conducted among Indian academics there were also some respondents who expressed an opposite view about the accessibility of e-resources. For an example, medical science respondents commented that e-resources are slightly easier to locate and identify. Some of the respondents indicated that finding information using an online resource is more difficult. For this reason, they still prefer access to print in addition to e-resources (Sampath-Kumar and Kumar 2010:139-143). Authors like Bharathi (2012) reveal that faculty members expressed a concern that the downloading of e-resources is slow. Based on these findings there still needs to be provision of both print and e-resources in some libraries globally, i.e. a title would be available in both print and online format. Infrastructure also plays a critical role in providing access to e-resources. Egberongbe (2011:6-7) shows that half a number of lecturers were dissatisfied with the IT infrastructure used to access e-resources whereas the lowest percentage were satisfied. Ansari and Zuberi (2010:5) relates to this statement by mentioning that at University of Karachi, a majority of academics were not satisfied with the accessibility of e-resources and regarded them as less reliable. This was due to networking problems they experience.

#### 2.3.4 Challenges and opportunities in the emergence of e-resources

One challenge is the need to invent new marketing strategies in order to make users aware of the availability of e-resources (Gathoni, Gikandi, Ratanya, Njoroge, Wasike, Kiilu and Kabugu (2011). The invention of new marketing strategies is crucial because Egberongbe (2011:7) claims that at the University of Lagos in Nigeria "...unfamiliarity with electronic information were the major reasons that would discourage users from accessing electronic resources in the University of Lagos library". There are users who can access them, but this in turn calls for libraries to accommodate users of all categories. Min and Yi (2010) point out that the Tsinghua University Library faces many challenges in meeting the needs of the range of users (faculty, researchers and students) for various resources. This is accompanied by high requirements for the Library's services. This implies that the Library had to also provide services that will cater for the needs of its diverse users i.e. in print and electronic format. The developments in teaching and research at Tsinghua demand that the Library redesign its services in order to meet the new needs that continuously emerge, for example improvements in navigation, access, document delivery and usage satisfaction by different disciplines (Min and Yi 2010: 317-324).

The emergence of e-resources can be a challenge for those who do not find it easy to adapt to new changes. Librarians need to receive training to enable them to provide services in the e-environment. This is demonstrated by Adeyinka (2011:30) when he states that one of the challenges in Nigeria is for librarians to equip themselves with computer knowledge. This knowledge is required because even though publishers do adhere to some standard features, e-resources are published with unique features. This calls for librarians to be trained in order to familiarise themselves with these features (Gathoni et al 2011). Training has to be extended to users as well. According to Gathoni et al (2011), the emergence of e-resources meant that users also had to be trained to cope with the demands of technological advances.

The authors further argue that poor connectivity and lack of computers can be barriers that prevent users from taking part in these technological advances. Adeyinka

(2011:30) supports this statement by stating that another challenge can be power supply, because downtime can prevent access.

The emergence of e-resources also meant a change in library processes and in budget allocations. In the article by Adeyinka (2011) entitled "Emergence of electronic library resources: a threat to librarians?" The author further states that one of the challenges encountered in Nigeria is an increased workload for staff. This is because librarians have equal task of ensuring that the e-resources they select and process meet the diverse needs of the users, as they do with print books. The Unisa Library also regards e-resources, to which much of the budget is allocated, as a priority. Equally, the processing of these resources is also prioritised by the Library. This is to support the e-learning strategy of the University. Accordingly, in the Bangalore City libraries as argued by Sampath-Kumar and Kumar (2011:138) librarians face a challenge of providing access to e-journal and e-databases due to the shrinking budgets and ever-increasing journal prices. In spite of the above challenges, e-resources continued to grow. This was followed by the emergence of e-books.

#### **2.4 The emergence of e-books**

According to Lebert (2009: 5) Michael Hart is credited as one of the forerunners of creating the idea of the e-book. It is said that while the Michael Hart was a freshman at the University of Illinois, he realised the future of computing and the Internet in the information age. He started searching for books in the public domain. These are books whose intellectual property rights had expired. He then digitised these books on the Xerox Sigma U mainframe. He stored them in the electronic book format. They were thus read on only hardware and software, which made these books a continuous text file instead of set of pages. Keeping these books in text file format made them easily copied, indexed, searched, analysed and compared with other books. The tenth e-book was completed in 1989 (Lebert 2009).

As the internet quickly spread worldwide from 1994 onwards, e-books created their own space as a new medium to get information, to access documents, to broaden our knowledge and also to communicate across borders and languages. Authors in general began to explore new ways of writing called hypertext literatures. They created websites to self-publish their work or post online while they were waiting to

find a publisher. Booksellers also began selling books nationally and internationally via their websites, while libraries created websites as a virtual window in order to gain access to these books. It was, however, later discovered that search engines were less accurate with a virtual window. This problem was solved when library catalogues went online and were easily accessed by hundreds and thousands of users (Lebert 2009).

According to Lebert (2009:65) it took aggregators a few years to convince publishers that books should have two versions i.e. a print and a digital version. Thereafter, aggregators partnered with publishers to produce and sell digital versions of their books. This partnership led to the growth of the e-book market in 2003, when e-books began to be sold worldwide. New online booksellers began selling only digital books. During this time more and more books were simultaneously published as both print and digital books, some of these books were digitised from print versions. While, Moldre (2014: 104) observes that in Estonia “the breakthrough in commercial e-publishing started only in December 2010 after the establishment of Eesti Digiraamatute Keskus (The Estonian Digital Book Center) by local entrepreneurs. This company acts as an intermediary between publishers and booksellers, helping publishers to convert the texts to various e-formats, mainly ePub and to organise their distribution via the Estonian-language sales infrastructure that has been elaborated by the center”. As a result, 20 publishers started to deliver e-books by the end of 2010. Eighteen of them partnered with Estonian Digital Book Center (Moldre 2014).

One of the developments in Spain shows that electronic publishing has changed from being a mid-term activity to being a progressive reality (Garcia, Arevalo, and Rodero 2010:460). This is evident in the statement by Ramaiah (2012:79), which notes that, according to the survey conducted by the Association of American Publishers, “there seems to be a flood of free e-books available now online” These are e-books that are downloadable for free; no subscription fees are required. Garcia et al (2010) further add that as a result of this progress, e-book sales have also increased. In the publication entitled User’s perception about e-books in India, Ramaiah (2012) concurs with this point in stating that from 1991 to 1996 the number of sales doubled every year. A steady growth took place in 1994. From 1998 to 2000 there was an average output of 36 e-books per month. Two thousand e-books were reached in May 1999,

3,000 e-books were reached in 2000, 4,000 in October 2001, 5,000 in April 2002 and a huge increase was experienced in 2010 as compared to 2009 (Ramaiah (2012)). In this case, Moldre (2014: 104), mentions that in Estonia the Estonian Digital Book Center began by offering 150 Estonian language titles by 2010. Later the title outputs and sales increased to 600 titles in 2011 and 838 titles were offered in January 2014.

The Estonian Institute of Economic Research shows 350 e-books were sold in 2010. The number grew when 9532 were sold in 2011 and 40879 was witnessed in 2012. Therefore, sales in 2012 increased three times compared to 2011. Moldre (2014: 110) predicts that the e-books sales will grow up to two to three percent by 2015. According to Maepa (2013) "e-book market in South Africa was estimated at about four million Euros in 2012. Unisa alone has 44 000 e-book titles".

Lebert (2009: 65) notes that it took aggregators time to wait for the public to be ready to read e-books on electronic devices such as computers, laptops, PDA phones, smart phones and mobile reading devices. In contrast, Garcia, Arevalo and Rodero (2010:455) predict that at the University of Salamanca in Spain there is a potential for the electronic reading of textbooks to dominate over traditional reading. This is derived from the fact that students at Salamanca University have already begun to read digital editions of textbooks with big screens, Kindles and DX devices.

In view of this, Staiger (2012:363) claims that in the Anglophone world "...the spread of handheld reading devices, will induce users to revise their attitudes and behaviours towards e-books". These devices will make the reading of e-books more appealing. This is evident in Lebert (2009), who mentions that during the year 2000 more and more readers enjoyed reading their e-books on notebooks, smartphones or other electronic devices. The usage of these devices brings about a new trend towards academic and scientific fields whereby new learning methods emerge (Secker and Plewes 2002; McLellan and Hawkins 2006). These learning methods are for example electronic study packs or learning packs.

In contrast Ramaiah (2012: 86) found that in India e-books seem uncommon with all types of users, the reason being that there is a lack of sufficient ICT tools created specifically for the Indian population in rural areas to enable them to access e-books. The reading devices to access e-books are expensive and they will take time to

become cheaper in India. In contrast Maepa (2013) acknowledges that “many African countries are only just beginning to set up an e-books infrastructure and spend their library budgets on e-books – at varying levels”. He further notes that South Africa also experiences the lack of affordable e-readers. He however predicts that “South Africa has the most promising e-book market of all countries because of fairly reasonable budgets allocated specifically to academic libraries”. Ramaiah (2012) establishes that in addition to unaffordable reading devices, e-books moreover are not affordable in India. As a result, they are not accommodated in people’s collections, educational institutions, libraries and corporate offices. Wexelbaum, Miltenoff and Parault (2011:2) relate to the e-book situation in India by mentioning that at New Bulgarian University in 1999 e-books were highly priced as compared to traditional paper copies. This made libraries selective when adding them to their collection. Above all, Lebert (2009) notes that even during the year 2000 many people still preferred reading print books.

According to the researcher in study Ramaiah implies that in some countries, libraries find it impossible to incorporate e-books to the collection because of scarcity communication technologies designed mainly for accessing e-books. Reading devices for accessing e-books are also expensive. This insertion by Ramaiah is contrary in African countries because they are leading in spending most of their budget in purchasing e-books. This is despite of the scarcity of affordable devices to access e-books. The reason could be that African libraries experience lesser financial constraints as compared to some countries.

#### 2.4.1 Awareness of e-books

Several authors (Levine-Clark 2007; Ashcroft 2011; Hoseth and McLure 2012; Staiger 2012 and D’Ambra, Akter and Wilson 2012) conducted studies to determine the level of awareness of e-books amongst users. They did this in order to implement the required strategies where necessary. Levine-Clark (2007) and Staiger (2012) acknowledge that academics in the college of human sciences rely on the catalogue as their search tool. It is for this reason that Ashroft (2011) and Hoseth and McLure (2012) report that users discovered e-books through doing searches in the library catalogue. On basis of these findings, Levine-Clark (2007:8) maintains that the

information-seeking behaviour of scholars in the humanities puts them in a position of having a higher degree of awareness than other disciplines in the university. This is evident in Staiger (2012:356), who confirms that at colleges and universities of the Anglophone world, academics in the college of human sciences showed a highest level of awareness as compared to the academic community as a whole.

Some studies in the literature reveal that the level of awareness may differ from institution to institution. Shelbourne (2009:61) found that at the University of Illinois Library, slightly above an average of faculty were aware, whereas Cheong and Tuan (2011:7) found that most of staff and students in the Nanyang Technological University Library indicated that they were aware. Staiger (2012:356-358), however, found that there is a huge gap in the level of awareness in colleges and universities in the Anglophone world. This is influenced by local circumstances, e.g. the extent to which e-books were promoted at that particular institution. He further indicates that the University College of London showed the greatest level of awareness as compared to Mount St. Joseph College in Cincinnati which showed the lowest level of awareness. Whereas the levels of awareness between the University of Illinois and the University of Denver, both showed average percentage. The researcher assumes that users with a lower level of awareness have the potential to improve their level of awareness as they stumble on e-books collections in their catalogue. This is confirmed by Staiger (2012), who indicates that the Anglophone world users access e-books via the library catalogue. Similarly, it is assumed that the Unisa College of Human Sciences (CHS) academics also use the library catalogue on regular basis. This puts them in a better position to know about the availability of e-books, since e-book collections form part of the Unisa Library's catalogue. Ashcroft (2011:399) relates to this statement by stating that faculty came to know about e-books through library-subscribed databases and Worldcat.

Besides the above mentioned methods of awareness, there were other methods by which users came to know about e-books. Ashcroft (2011:399) indicates that most users discovered e-books from bibliographies of articles, books and textbooks. Faculty revealed that they learned about e-books from recommendations and leads from their peer professors e.g. "Twitter" feeds. Furthermore, book reviews, publisher flyers and attending conference sessions were also part of their awareness methods.

Findings by authors like Ashcroft (2011) and Hoseth and McLure (2012) show that a few users received awareness from librarians, libraries' surveys and libraries' websites. Hoseth and McLure (2012:286) argue that the fact that it is only a few users might be an indication that librarians at Colorado State University are less active in creating e-book awareness amongst their students and faculty. Hence it is essential to find out how Unisa academics came to know about e-books.

Researchers need to give a brief explanation about what e-books look like, thus enabling respondents to distinguish e-books from other e-resources. One of the remarkable features of an e-book is that it is like a print book, i.e. with physical features such as chapters, table of contents, pages, etc., in an electronic format. Staiger, in the same publication of 2012 entitled "How e-books are used: a literature review of the e book studies conducted from 2006-2011", observes that lack of knowledge about features of e-books can contribute to lack of awareness about their availability. This relates to what is mentioned by authors like Levine-Clark (2007) and Jamali, Nicholas and Rowland (2009), where they indicate that there were participants who were unsure of what exactly an e-book is. These respondents seemed to confuse e-books with e-journals and e-reserves.

Jamali et al (2009:42) support this notion by stating that one of the respondents in the UK expressed that he was uncertain if e-journals count as e-books, while Kahn (2013:68) states that in the study conducted between academic staff and students at Western Cape university libraries, respondents expressed that they did not know whether they had used e-books or not. Martin and Quan – Haase (2013:1022), moreover reveal that participants tend to confuse e-books with e-readers such as the Nook and the Kindle. This means some users cannot distinguish e-books from electronic reading devices. It could be that these uncertainties also exist with CHS academics at Unisa, which can, if not clarified during the survey, yield inaccurate results.

D'Ambra, Akter and Wilson (2013) conducted a study at the University of New South Wales Library to explain the interrelationship of e-books and the information needs of academics. They established that lack of awareness about the availability of e-books is one of the barriers to their adoption and usage. This is evident in the study that was conducted by D'Ambra, Akter and Wilson (2013:50), which showed that most of

academic libraries offered e-books to users-, whereas only a few of these academic libraries were subscribing to or owning 1,000,000 e- books. This might be the reason why users lack awareness and exposure to the features of e-books. In support of this statement, Kahn (2013:64) also found that the main reason why users are not using e-books at Western Cape university libraries is because they are not aware about their availability in the library stock. Though Olasina and Mutula (2014: 245) argues that “availability does not translate into use”.

#### 2.4.2 Adoption of e-books

Martin and Quan-Haase (2013:1017) argue that extensive research has been done on the use of electronic tools by scholars in the humanities, but few studies have focused on their uptake. For this reason, Martin and Quan-Haase focused their study on the uptake of e-books by historian academics. Historians are regarded as users who make good use of the library. This is because of their dependency on written records, books as well as journals, as their secondary sources in conducting their research. Martin and Quan-Haase (2013:1024) concur that academic historians' information-seeking behaviour qualifies them to be early adopters of technology that expedite research, the reason being that they coincidentally use e-books through the library portal. This might eventually change their research habits as there is a possibility that they will in future regard e-books as their main source of information.

Martin and Quan-Haase (2008) surprisingly found that historians were unlikely to depend on e-books as their primary source, the reason being that the type of material for which historians are looking and their characteristics are not easily transferable to this format (Tahir, Manhood and Shafique 2010). This means that historians have their own specifications which they expect to find in using e-books.

Despite that, Martin and Quan-Haase (2008:1025) found that academic historians still regarded e-books as having the potential of being useful for study and research. This is shown by the fact that they showed eagerness to implement them in their classroom. Professors indicated that e-books will encourage students to display information using innovative ways to present text. These professors also indicated that the usage of e-books would increase the level of accessibility to library materials.

Convenience, portability and saving the cost of purchasing print books, as well as saving a trip to the library, were identified as some of the advantages expressed by historians.

Grenine (2012) states that in Latvia the adoption and use of e-books is most noticeable among users with good computer skills. He further mentions that one of the reasons that hindered the adoption in the age group 46-55 was poor searching and internet skills. Ages 46-55 however, show an interest in learning and improving their information retrieval skills. Interface was also found to be one of the reasons that hinder the increased adoption. This is because the design of the interface is not standardised, so each example presents fresh challenges. Ages 46 to 55 (middle age) preferred a simple interface in their native language. McKiel (2007) affirms that most users at California State University in the USA were unfamiliar with vendor e-book interfaces. However, students who were surveyed less than a later on had discovered this vendor e-book interface feature. On the other hand, Grenine (2012) found that users in Latvia showed interest in the adoption of e-books. Most of them showed that they do not prefer print or text formats, whereas a few indicated that they prefer both electronic and text formats. This category is an indication that even though they still prefer print, they have also accepted the existence of e-books, which increases the level of adoption.

Walton (2008:26) found that the adoption rates were high because print versions were no longer available to users, which thus compels users to adopt e-books. As is the case at the Unisa library, in some libraries the adoption of e-books is not voluntary for library users, but is guided by the strategic plan of that particular library. However, according to Maepa (2013) “the uptake of e-books on the African content has not yet reached any significant levels”. In contrast Brunson (2008) mentions that one of the obstacles to the adoption of e-books is tradition. He elaborates that students and society are mostly used to buying, browsing and reading the printed text.

Users need to get used to using e-books because this may in turn have a positive impact on their adoption and usage rates. According to Grenine (2012) an increase in the adoption and usability of e-books was noticeable with some of the users who possessed previous experience of using them. This also differs according to age, with ages 46 to 55 lacking experience of using e-books. However, ages 19 to 25 were

in agreement that e-books meet their information needs. The level of adoption was therefore lower among the category 19 and 46 and 46 to 55. In contrast, according to Martin and Quan-Haase (2013:1018), the results of a survey of scholars of the humanities in Pakistan reveal that scholars of the humanities are becoming more familiar with using technology in their research. There is more likelihood to access e-books in the digital catalogue, making the adoption rate in Pakistan to be higher.

The adoption of e-books is also dependant on whether or not they meet a particular user's needs. Vassiliou and Rowley (2008) highlight that during the interview, participants showed both negative and positive attitudes towards e-books. This was dependent on the attribute of the e-books that they were discussing. One of the negative attitudes expressed had to do with the availability factor. Historians were concerned about the manner in which historical documents are digitised. Some documents are becoming excluded from the digitisation process. They perceive that this might affect the next generation of scholars. In support of this notion, Mckiel (2007) mentions that surveys on e-books in the UK show that the use of e-books lags behind as compared other e-resources such as e-journals. There is a perception that e-books are not yet fully embedded in academic practice, which adds to the unavailability factor.

According to the study conducted by Joint Information Systems Committee (2006) in the UK, reluctance on the part of publishers and aggregators to produce e-books is regarded as one of the reasons for the limited uptake of e-books. Publishers are said to be afraid of making their publications available in e-book format because of uncertainties that they have regarding the intellectual property rights of this format. Woodward (2013:13), in an international perspective, relates to this notion by stating that libraries are interested in the uptake of e-books since they are now a popular format, however encounter some limitations in that titles they need are often not available. This means that even though e-publishing is evolving, there are still hesitations on the part of publishers because they have a lack of knowledge concerning the intellectual property rights with regards to e-books. He further adds that both publishers and libraries need to improve their knowledge about making e-books available to their users. Zarins (2013) concurs that there is lack of

understanding by librarians and publishers about the legal framework, for example e-lending.

According to Kluzek (2014:15) “there is currently no mechanism in use within libraries that allows for the lending of e-books and the sharing of this resource between institutions”. However according to Moldre (2014: 94) in Estonia, the uncertainties about copyright were resolved by the establishment of e-publishing service providers in 2010. This service is meant to help authors sell their e-books. This initiative led to the increase in the number of e-books produced as well as e-book sales. Moldre (2014: 104) shows that number of titles offered (as stated in section 2.3) continuously grew every year. This implies that due to the unavailability of e-lending libraries can therefore resort to consortia purchasing and patron driven acquisition. In addition, Zarins (2013) states that lack of resources to proactively develop e-book services was also identified as one of the problems.

The slowness or lack of adoption does not only rest on the lack of titles. Zarins (2013) notes that in Latvia the e-book market is just emerging and libraries there have shown little interest in it. On the other hand, Woodward (2013), taking the international point of view, declares that e-books do have the potential of growing in the near future because they are an evolving concept. This might stimulate interest in libraries as they have to be in line with the latest developments. In contrast Anuradha and Usha (2006:49) reveal that in Bangalore in India, e-books are not something new. Their uptake has been slow as compared to e-journals and e-newspapers. The reason for this is that they were available in formats that were incompatible and non-interoperable. Slater (2010) relates to this by stating that restrictions on copying, printing or saving e-books are one of the reasons why e-books have not been more readily adopted. Similarly, Martin and Quan-Haase (2008:10) mention that lecturers have known about e-books for a while, but only adopted them for the purpose of teaching and research.

Vassiliou and Rowley (2008) further add that another challenge indicated by the respondents was that using e-books is different to browsing from the shelf. This is because while one browses from the shelf one can accidentally come across another book for which one was not initially looking. In addition to that, users felt that there is no need to depend on e-books because they, the users, do not have enough

information in connection with access restrictions. For this reason, they would rather ask for the digitisation of archives they already use for research.

### 2.4.3 Usage of e-books

It has been mentioned in section 2.4.1 that disciplines in the college of human sciences require researchers to base their facts on the knowledge they acquire from reading books. For this reason, they are expected to present the highest frequency of e-books usage rate. In contrast, Carlock and Perry (2008:247) establishes that they are less frequent e-book readers. Levine-Clark (2007:9) further elaborates that scholars of the humanities at the University of Denver use e-books with almost the same frequency as other respondents in the university. In contrast, Cheong and Tuan (2011:17) reveal that frequency levels differ by disciplines at the Nanyang Technological University Library. Carlock and Perry (2008:250) relate to this notion by stating that industrial design faculty members at Arizona State University libraries use e-books regularly for research, while history professors' colleagues do not use e-books at all and indicated that they were hoping to retire before using e-books becomes an obligation.

Observing the frequency at which academics in the literature use e-books poses the question of whether this is not one of the reasons why the Unisa CHS academics are perceived to be using e-books at a lower rate. University of Liverpool, Sydney Jones Library (2010) conducted a study to investigate user's habits and opinions in using e-books at the University of Liverpool. Even though a highest frequency was witnessed for the purpose of research, faculty members showed that they less frequently used e-books for studying. This relates to a study by Carlock and Perry (2008), who reveal that in Further Education colleges throughout Northern Ireland, most of academic staff also responded that they spend less than one hour per week using e-books, while a similar situation was witnessed by Anuradha and Usha (2006), who found that at the Institute of Science in India, faculty members used e-books less often than students. While Olasina and Mutula (2014:244) found that "majority of respondents... used e-books only once a month". Ahmad, Brogan, and Johnstone (2014:36) conducted a study to report on the information behaviour of the technologically advanced users. Findings revealed that they spend more minutes in browsing, reading sessions and explore unique titles. The researcher therefore predicts that users who spend less

time might as well improve on the frequency and duration as they get advanced with the usage of e-books.

According to Staiger (2012:357) the e-book usage rate presented in studies that were conducted at colleges and universities of the Anglophone world varied between the academic community at Mount St. Joseph College in Cincinnati and the University of Illinois. He is also cognisant of the fact that there are studies like Jamali et al (2009), Levine-Clark (2007) and Shelburne (2009) which establish that there is a confusion among some users as to what constitutes an e-book as mentioned above in section 2.3.1 (page 14). This is evident in authors like Sprague and Hunter at the University of Idaho Library and Lamothe (2013) at the Laurentian University, who did not distinguish between e-reference and e-monographs when recording e-book usage rates. Sprague and Hunter's study shows that the smallest percentage of 14,000 of these resources had been used at least once. According to Staiger (2012:357), Sprague and Hunter also broke down usage rate by title. It transpired that only a few titles had been accessed five times or more. The researcher observes that most of the studies in the literature failed to look at usage rate by title. The researcher is of a view that even though the findings of Sprague and Hunter showed some limitations as mentioned above, one can claim that they provided more detailed findings by also looking at the number of times each title was accessed.

Changes in the number of staff might have a negative impact on e-books' searching and viewing statistics. This is evident in the study conducted by Lamothe (2013:10) at the Laurentian University. He found that "when faculty numbers began to decrease in 2009, searches and viewings were still on a rise...Only in 2010 did searches for both e-reference and e-monographs began to decrease as faculty numbers continued to decline. However, the drop in faculty numbers was not reflected in viewings, which continued to increase in value". This means that the viewing statistics were not affected.

According to Olasina and Mutula (2014:246) majority of respondents at the University of Ilorin perceive that e-books are better than print books with regards to portability/lightweight, file sharing/attachments to email, multiple use virtual and storage/ re retrieval. As a result, they indicated that they would like to use more e-books because of the perceived values.

#### 2.4.4 Reasons for low usage

Only a limited number of faculty, graduate and undergraduate students at the University of Illinois indicated that they have not yet used e-books because they did not need to use them. However most of them responded that they did not know that e-books exist (Shelbourne 2009:61). This relates to what was found at Niger Delta University Library, in that “lack of awareness was identified as primary barrier inhibiting usage....” This means that libraries need to increase awareness as mentioned above in section 2.3.1.

Posigha (2012:800), makes a generalisation that one of the barriers to using e-books is the cost of reading devices such as multipurpose tablets, e.g. Apple iPad. He adds that at Delta, e-books require that a single institution invest in different technologies in order to gain access to a multitude of file formats. This poses a challenge to institutions and individuals in terms of affordability. The Unisa Library, in contrast, does invest in the purchasing of computers, laptops, e-readers etc. Each of these devices provides academics with access to multiple file formats.

Access to e-books requires compatible software and hardware. Posigha (2012:800) reveals that Niger Delta University lacks a platform for accessing e-books. In contrast, the Unisa Library provides access to e-books via the Library’s online catalogue. Posigha further mentions that Niger Delta University Library also lacks a good e-reader device for accessing e-books. Kahn (2013:39), concurs that “...e-reader functionality is not conducive to study”. For this reason, Kahn (2013:86) states that the largest percentage of academics at Western Cape university libraries own tablets. As a result, accessing e-books through e-readers is found even less. FIND survey report of 2010 concurs, it is only a few respondents that used e-readers in Taiwan. The devices used for reading e-books were PCs, mobile phones, notebooks and tablet PCs.

According to Kruger and Bester (2014:66), lecturers at CTI Education Group in Johannesburg, South Africa, believe “that the use of tablets can help improve the quality of teaching and learning as well as promote transformative teaching practices”. Therefore, tablets become a suitable device for accessing e-books. At Unisa, the

Information and Communication Technology team of the University constantly upgrade computers, laptops and the Unisa Library's systems for the newest version, which enhances accessibility to the library catalogue. The interface can also be one of the contributing factors for low usage rates, just as it can affect the adoption as mentioned above in section 2.3.2 (page 15). Hoseth and McLure (2012: 282-283) indicates that one of the commonly mentioned concerns is how e-books appear on several devices. There is a concern that they do not work the same way on different devices.

From the above analysis it seems that reading print will still receive preference as compared to e-books. This can also be due to resistance to adapt to the newest technologies. Hoseth and McLure (2012:280) state that the majority of users at Colorado State University are not comfortable reading software on a device, they prefer reading books on a Palm held. Findings show that users also feel that e-books compel them to be bound to the Internet and to be more dependent on a computer as opposed to using the library and performing active research. This is confirmed by Levine-Clark (2007:10), who found that respondents at the University of Denver use e-books only when the print version is not available.

Several findings in the literature reveal that there are some advantages that exist with print book that are unfortunately lacking with e-books. Tracy (2018:45) found that at University of Illinois at Urbana-Champaign challenges with regards to usability of e-books can lead to users resorting to print even if e-book was initially the preferred resource. This is shown in Staiger (2012:360), where he highlights the fact that at colleges and universities in the Anglophone world, participants prefer printed books because they have better search functions than e-books. Zhang, Niu and Promann (2017:578) in the publication entitled "assessing the user experiences of e-books in academic libraries" affirm that users have a difficulty to do searching and navigation on e-books. Tracy (2018) adds that interface was one of the drawbacks of using e-books. Anuradha and Usha (2006) and Staiger (2012) state that it is hard to do browsing with e-books. It might be that this has not yet improved because, according to Staiger (2012:360) respondents at colleges and universities in the Anglophone see print books as resources that allows shelf browsing. Therefore, the lack of this option with e-books received strong criticism by the academic community. In contrast,

Olasina and Mutula (2014: 244) found that there are respondents who indicated that e-books do allow shelf browsing by browsing through e-book collection or database by discipline. Similarly, Iranian information professionals regard search tools as one of the beneficial features of an e-book. They state that e-books' search tools, i.e. table of contents which help search for specific pages and chapters, easily guide users' needs. The Iranian respondents also commented that searching within e-book texts when looking for specific information is easy with e-books. They mention that one can easily search across an e-book's entire text. This can be useful when one is required to browse through many pages in order to find the information that he needs (Ghaebi and Fahimifar 2011:780). The researcher thinks that these findings might imply that perceptions by librarians with regard to the use of e-books might not be the same as those of academics. It is for this reason that the researcher wants to obtain the perceptions of Unisa academics.

Staiger (2012), however, further adds that a faculty member expressed that navigation among different sections within e-books was awkward as compared to print books. Members of the academic community also pointed out that the invisibility of e-books makes it cumbersome to visually memorise where they were within the e-book, whereas this is possible with print books. D'Ambra, Wilson and Akter (2012:61) mention that there is a need to interact with the text by being able to highlight, add notes and do bookmarking for future reference in order to be able to quickly find information for which a researcher is looking. For this reason, Jamali et al (2009:44-46) add that respondents in the JISC National E-book Observatory survey revealed that it is not easy to concentrate while reading an e-book. Information is hard to absorb as compared to print books.

Some respondents in the literature find e-books feasible only when reading short passages. Staiger (2012), Jamali et al (2009), Posigha (2012) and Hoseth and McLure (2012) found that participants experience difficulty in reading from the screen. Hoseth and McLure (2012:280) mention that most of the respondents in Bangalore, India, find e-books to be subject dependent because they are hard to read and browse when studying subjects like English, which involves a lot of reading. Respondents therefore find this eye-straining. Herman et al, as cited in Hoseth and Mc Lure (2012:280), concurs that participants do not want to spend much time on a digital

book when reading long documents such as dissertations. For this reason, they prefer to read such documents in the print version than as e-books. If they want to, they print the relevant portions to read. As a result, Hoseth and McLure (2012) found that humanities and social sciences participants are not completely satisfied with e-books as compared to their counterparts in the hard sciences and business, as communities in human sciences are required to read word for word in a book. This is confirmed by Nicholas et al (as cited in Hoseth and McLure 2012:280) in indicating that most users simply dip in and out of e-books rather than reading the whole chapter or section.

In contrast Moldre (2014: 110) reveals that e-book readers in Estonia do not only read content but also read Estonian classic literature and works by present –day Estonian writers. This means they do not have issues with reading long passages instead: they view it as an opportunity to promote and access the national literature. Olasina and Mutula (2014: 245) relates to this view by stating that majority of respondents at University of Ilorin preferred reading e-books in the portable document format (PDF).

Jamali et al (2009:35-44) identified disadvantages that might contribute to low usage of e-books as the following:

- E-books can be easily deleted accidentally
- E-books are expensive
- E-books reduce control over plagiarism and increase copyright concerns.
- Technology related problems
- E-books need fast computers and internet connection with a high speed
- The interface is not very suitable because much of the space is covered by menus
- E-books are not compatible with systems such as Linux or Apple computers

Hoseth and McLure (2012:282-283) mention that users are concerned about the inability to write in e-books or flag pages for future reference. Restrictions on the number of pages to be printed was also one of the concerns. As an example, the MyiLibrary platform limits the number of pages because it suspects one is trying to print more than what the fair dealing convention allows. This is one of the copyright laws which allows a limited amount of copying. For that reason, it threatens to log the

user out. On the other hand, Soules (2009:16) found that faculty also think that e-books have too many restrictions, such as printing, number of users etc. On the contrary, restrictions on the number of users is supposed not to be an issue because print books can only be issued to one user at a time as well. He argues that this has to do with the fact that faculty are used to unlimited access to databases.

Kahn and Underwood (2013:14) states that Digital Rights Management (DRM) enforces restrictions by imposing certain limits on which e-book can be accessed via software. Olasina and Mutula (2014: 246) elaborates that digital rights management issues such as password, access limitations prevent the use of e-books. Soules (2009:16) further adds that the inability to cut and paste on some platforms is regarded one of the restrictions. Also, the inability to flip easily between multiple e-books at one time was also noted as one of the disadvantages e.g. opening several documents at once while reading. Hoseth and McLure (2012:282) elaborate that respondents want to be able to do this in order to compare the documents.

Relevance of the e-book content might also be one of the reasons for low usage. Shelburne (2009:61) found that at Electronic Resource Librarian University Illinois, respondents stated that they only use e-journals as compared to e-books. The issue is relevancy, meaning respondents did not find what they were looking for. Some also indicated that they did not find e-book titles relevant to their research needs. Besen and Kirby (2014: 134) reveal that one of the reasons for the unavailability of titles can be that, publishers deliberately delay library access to new titles for a certain period of time while selling same titles to consumer markets in order to preserve sales to individuals. Ramaiah (2012:86) relates to this in stating that in India, one of the barriers that prevent e-books from being common with the Indian population is lack of Indian content in electronic format. A similar scenario was witnessed by Kahn (2013:68), who found that at Western Cape university libraries, researchers expressed a concern that there is an unavailability of titles in e-book format. Respondents in these libraries confirm that there is underrepresentation of certain disciplines. Maepa (2013) expresses a similar notion by stating that there is lack of e-books in indigenous languages, most of them are in foreign languages which indicates a major barrier. This is confirmed by Dlodlo and Foko (2012) by mentioning that the production of e-book content requires that local content producers be trained for this

purpose. They admit that currently there is shortage of skills in this area. The researcher thinks that users also need to be taught how to use e-books. According to Olasina and Mutula (2014:246) some respondents revealed that lack of training prevents them from using e-books.

In some cases, it is not easy to determine the usage rate of e-books. In contrast Olasina and Mutula (2014: 234) argue that concluding that academic libraries in Nigeria have a low usage rate might not be accurate because these libraries have small collections. Moreover, they rarely analyse the usage rate of these collections, which is obviously very limited.

#### 2.4.5 Academics' purpose in reading e-books

From the above, it can be seen that users have expressed positive as well as negative factors in using e-books. The diversity of these factors might cause academics to use e-books for different purposes. Ashcroft (2011:400) found that at Liverpool John Moores University in the UK, a 2009 survey showed that teachers were using e-books to support their work. According to Rowlands et al (2007:498), in a study conducted at the University College of London it also transpired that faculty use e-books mainly for work and study rather than leisure. Kahn (2013:70) concurs with these findings when she shows that the majority of academic staff and students at Western Cape university libraries use e-books for a similar purpose. Kahn (2013) further elaborates that they use e-books for research purposes, while a smaller percentage use e-books as recommended course reading and for the purpose of teaching. Jamali et al (2009:35) point out that in a study which was part of the JISC-funded UK National E-book Observatory, it also transpired that academics encourage students to use e-books as a viable resource. Some academics indicated that they use chapters and sections for course reading, others said that they put links in course management software. Hoseth and McLure (2012:283) reveal, however, that at Colorado State University libraries, faculty use e-books for the following purposes:

- Learning or viewing foundational knowledge
- Preparing to teach a course or preparing for potential student questions that might arise in an individual class session

- Framing a research question at the outset of new research and before proceeding to journal literature
- Conducting research in a topic area more comprehensively addressed by books than by journal articles.

Some academics can only be convinced about the feasibility of e-books in study and teaching after experiencing how students use them. Surveys such as that conducted by Rojeski (2012: 236) state that Dickinson College got involved in a pilot program to investigate the usage of reserve books in e-book format. The success of the program was that additional faculty members were attracted to using e-books for the purpose of class readings in their classrooms. In contrast, Carlock and Perry (2008:250) indicate that at Arizona State University, only history and industrial design professors indicated that they use e-books as text books, while one professor commented that she would never use e-books as textbooks for her large undergraduate lecture class. She preferred to try it with small graduate or upper division classes. She mentioned that she was scared that it would cause huge chaos if it did not work. Several professors supported this view by stating that e-books can be used with more experienced students, e.g. seniors and graduate students.

Some academics regard e-books as their main resource while others regard them as a supplementary resource. According to Carlock and Perry (2008:250), graphic design professors use e-books in conjunction with the printed books that he circulates amongst students in the classroom. According to a graphic design professor, information such as illustrations and plates gets lost with e-books, hence he brings print books to supplement this type of information. Olasina and Mutula (2014: 244) agrees with this notion by reporting that some respondents at the University of Llorin view e-books as a supplement. This is confirmed by authors like Carlock and Perry (2008) and Ashcroft (2011) when stating that academics dip in and out of e-books as mentioned above in section 2.3.3.

Carlock and Perry (2008:250) state that academics dip in and out when browsing for conducting research, whereas Ashcroft (2011:401) found that academics do this when browsing for information in an e-book chapter. This means that academics use e-books as a reference source. Kumbhar (2018: 162) attest that at Svitribai Phule

Pune University academia mostly used reference e-books. Similar behaviour is also observed in studies by Staiger (2012) and Mulholland and Bates (2014), whereby academics use e-books for the purpose of quickly browsing for research purposes and to search for quick information in general. Mulholland and Bates (2014:4) describe that some academics use e-books only to scan. Staiger (2012:357) elaborates that users use e-books to find print versions to refer to for extended reading and research.

Several studies have revealed that there are some academics who at least make some attempt to read portions in e-books. This is shown by Staiger (2012:357) who notes that in the study conducted by Levine–Clark at Denver University, respondents commented that they read a chapter or article within a book, whereas the smallest percentage showed that they also only read a single entry. On the other hand, Kahn (2013:72) also found that at Western Cape university libraries, the largest percentage responded that they read relevant content only. Carlock and Perry (2008:250) also found that it is a very low percentage of academics at Liverpool John Moores University who do read the whole book. The above-mentioned findings might be an indication that there is a possibility that academics can review their e-book reading attitudes in future. This is confirmed by Jamali et al (2009:35), who mentions that in the UK there are academics who expressed a need for reading the entire e-book text.

#### 2.4.6 Accessibility of e-books

Several studies indicate that e-books had access limitations, which might have prevented their popularity. Garcia, Arevalo, and Rodero (2010:460) explain that e-books have long been there in Spain, however their use has been restricted to the academic field. As is the case at the Unisa Library, in Spain the procedure for gaining access involved acquiring licence agreements whereby users could browse the e-books.

Garcia, Arevalo and Rodero (2010) also found that in Spain it happened that in most cases several users could not access the same e-book simultaneously. Ashcroft (2009:401) elaborates that users who can access e-books at the same time at Liverpool John Moores University in the UK are dependent on what that academic

library can afford in terms of subscriptions. This implies the option to subscribe to a single-user model or a multiple-user model for accessing e-books. The Unisa library collection developers always try to select a model that allows for multiple access in order to meet the needs of users. Soules (as cited in Ashcroft 2009:402) further explains that it happens that when students are asked to refer to e-books, they are surprised about what is happening when the limit is reached. This implies that the budget constraints of libraries can deprive users of gaining simultaneous access to e-books. Hoseth and McLure (2012:282) confirm that students and faculty at Colorado State University libraries showed a strong desire for e-books to allow simultaneous access by multiple individuals. As a result, Hoseth and McLure (2012:278) highlight the fact that the Colorado State University Libraries gradually increased their provision of access to e-books. In March 2011 users in Colorado State University Libraries got access to more than 135,000 titles.

Unisa library provides access to e-books regardless of physical location (Unisa 2015). According to Lebert (2009), when e-books emerged they had geographic access restrictions because information was made available on screen. This implied that users from rural areas who did not have access to technologies like computers could not enjoy the benefits. According to the researcher, lack of equipment seems to be a global issue and it still applies even in the 21st century. This is shown in Anuradha and Usha (2006:59) where they show that one of the factors that hinder respondents from accessing e-books in the UK is the equipment needed to access them, while Kahn (2013:78) found that a majority of respondents at Western Cape university libraries expressed a concern that it is essential that e-books be accessible anywhere. Hence, Hoseth and McLure (2012: 282) state that e-books might not be equally accessible to all individuals.

Mulholland and Bates (2014:495), in contrast, found that academic staff are currently not limited to accessing e-books via computers. They currently have an option to access them via a variety of devices as their delivery platforms, while a majority of them used onsite college PCs. It is assumed that same thing applies with Unisa CHS academics. In contrast Cheong and Tuan (2011:13) found that at Nanyang Technological University Library not all e-books can be accessed through the library catalogue. Access to some e-books, such as the huge Chinese collection from

Superstar and Apabi of more than 1000.000 items, have to be done via the platforms of these collections that are provided by the vendor. This should be done this way until such time as MARC records can be created or uploaded to the catalogue. While this is not a problem at Unisa library because the library already uses MARC. MARC is an acronym which stands for Machine Readable Catalogue. It is a standard that enables the computer to interpret information that is on a cataloguing record. Cataloguing record means information that was traditionally shown on a catalogue card.

Despite the access restrictions expressed by users from other libraries, there are users who found access benefits with e-books. According to Jamali et al (2009:36), many respondents in the UK indicated that e-books offer instant access and are more accessible compared to print books. They commented that e-books can be accessed from a distance. Therefore, users do not need to travel to the library because they can access e-books anywhere. Accessibility rate is measured at an average percentage when it includes those users that indicate that e-books are convenient to use. According to Olasina and Mutula (2014: 244) in the study conducted by members of faculty at the University of Ilorin in Nigeria, almost an average of respondents indicated that the use of e- books is closing a gap of problems of access associated with print books. According to the researcher these percentages indicate that there is a potential for these users to show a higher level of satisfaction in the near future. This is evident in Mulholland and Bates (2014:495), who mention that in Further Education colleges throughout Northern Ireland, a “significant proportion specified that they had accessed e-books from off campus (43)”. Kahn (2013:87) also found that a majority of his respondents showed that they are able to access e-books off campus.

Studies show that it sometimes happens that e-books are unavailable for access. According to Staiger (2012:360) some respondents perceive that availability is not necessarily an advantage with e-books, because it depends on connectivity. Hoseth and McLure (2012:283) add that respondents at Colorado State University Libraries expressed concern that access to e-books is also restricted to users with Internet connectivity, which might be a problem when they are conducting field research at remote locations because connectivity might not be available. In contrast, the study

by Staiger (2012) shows availability as one of the primary benefits of using e-books. Jamali et al (2009) relate to these findings in stating that their respondents were satisfied about the 24/7 availability of e-books. The Unisa Library also provides 24/7 access to e-books, though it is subject to the availability of Internet connectivity and downtimes.

## **2.5 Summary of Chapter 2**

This chapter dealt with a literature review relevant to this study. It reviewed studies on factors such as academics' awareness, adoption, interaction, frequency of use, accessibility, reasons for low usage of e books and their perceptions of books. Sampling methods that were used in various studies were also noted. The literature review was essential to find out what has been researched on the subject under investigation in other academic libraries. It was also necessary to find out how previous findings inform the current study. The objective of the next chapter is to discuss the methods and approaches adopted in undertaking this study.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter explains the research design and method that the researcher used in order to determine the perceptions of academics in the College of Human Sciences (CHS) at Unisa with regard to the usage of e-books. According to Babbie and Mouton (2001:74-98), research design and research methodology are complementary steps in making decisions about the research approach. The authors refer to the research design as a plan and research methodology as a process that will be followed in conducting the study. Therefore, the first section of this study discusses the research design (approach). It provides a brief overview of the different purposes of research. Research methods such as identifying a population, sampling, the research instrument and the stages of the research process are discussed.

#### **3.2 Research paradigms and approaches**

Shannon –Baker (2016: 321) says paradigms are “systems of beliefs and practices that influence how researchers select both the questions they study and methods that they use to study them”. Shannon – Baker (2016) adds that paradigms guide a researcher on what research approach to employ to a particular research problem and how to address it. According to Neuman (2014:97) and Bryman (2012:30) there are different types of paradigms and these include interpretivism, pragmatism and positivism. Almpanis (2016:303) describes interpretivism as a paradigm used by researchers who seek details about the research problem and Punch (2016:64) describes pragmatism as a paradigm whereby different methods are used to different questions. Positivism was a suitable paradigm for this study which is described according to Punch (2016:63) as a paradigm whereby function of science are used to develop descriptions and explanations of the objective data. Bryman (2012:30) elaborates that this paradigm is used to solve natural and social sciences problems. Neuman (2014: 97) adds that positivists “prefer quantitative data and often use experiments, surveys and statistics”.

Creswell (2014:3) refers to research approaches as the plans and procedures that extend the research steps from general assumptions to detailed methods of data collection, analysis and interpretation. Creswell (2014:3) notes that there are three types of approaches to research i.e. qualitative, quantitative and mixed methods. Neuman (2012:115) explains that in the quantitative approach “we develop techniques that can produce quantitative data (i.e. data in the form of numbers)”, whereas in the qualitative approach the data are in the form of written or spoken words. Leedy and Ormrod (2010:95) add that this approach allows researchers to enter the setting with open minds and to interact with their participants. Creswell (2014:4) elaborates that a researcher explores and seeks to understand the meaning of responses about the phenomenon that is being studied. However, mixed methods research is an approach that collects both qualitative and quantitative data and integrates them. The researcher sought to convert responses obtained from the CHS academic staff with regard to their perceptions on the usage of e-books into numbers, for the purpose of presenting them in statistical form. This means that this study employed a quantitative research approach.

The aim of the study was to establish the perception of academic staff in the College of Human Sciences on the use of e-books. Leedy and Ormrod (2013:95) attest that quantitative researchers normally start by testing a specific hypothesis. Neuman (2011:200) elaborates that quantitative researchers do this by thinking about variables and converting them into specific actions during a planning stage, that is before and separate from the gathering or analysing of data. According to Neuman (2011:193) quantitative research uses the language of variables and hypothesis that is common in many areas of science, e.g. gender etc. Creswell (2009:175) highlights that qualitative research data can be obtained from interviews, observations and documents.

The researcher obtained secondary data from reviewing the literature of similar studies, in order to get more information about the e-books concept. This includes identifying methodologies and recommendations used by these authors in arriving at the conclusions of these similar studies. The Unisa Strategic Plan 2015, “A Transformation Agenda” the Unisa Library Policy, as well as the Unisa Teaching and

Tuition Policy were also consulted (Unisa 2015). These documents were consulted in order to contextualise the research problem. According to Stewart and Kamins (1993: 5) secondary sources provide a useful starting point for additional research by suggesting problem formulations, research hypotheses, analysis and interpretation of new research.

### **3.3 Research design**

According to Leedy and Ormrod (2013:74) a research design is a framework for the procedures the researcher follows, the data a researcher collects and the data analysis a researcher conducts. Creswell (2009:3) adds that research design involves a number of decisions that the researcher needs to take, e.g. which design is the most appropriate for the study. These decisions have to be taken on basis of the nature of the research problem that the researcher is addressing. Babbie (2013:89) elaborates that research design is about who or what the researcher is going to study, when and how the study is going to be conducted, as well as for what purpose.

Babbie (2013:90) further observes that there are three purposes of research: exploration, description and explanation. Exploration is used when a researcher is studying a subject that is completely new, whereas explanation is used to explain things and description is used to describe things like situations and events. The aims of this study was to establish the perceptions of the academic staff with regards to the usage of e-books and one of the objectives of this study was to determine reasons for low e-books usage. Accordingly, this study was categorised as descriptive. The type of design that the researcher employed was a survey, which is discussed in the next section.

#### **3.3.1 Survey research**

Leedy and Ormrod (2013:189) state that the term survey is used by some scholars to refer to almost any form of descriptive, quantitative research, thus it is called descriptive survey or normative survey. Babbie (2013:229) concurs that surveys may be used for the descriptive purpose. The researcher aimed to learn about the perception of the CHS academic staff by obtaining information on their opinions, attitudes and experiences with regard to the usage of e-books. Leedy and Ormrod (2010:183-187) agree that survey research is used to acquire information of this

nature. Leedy and Ormrod (2013:190) highlight that survey research is based on self-report data, with people expressing what they believe with regards to the research problem. The researcher found survey research a suitable method for this study.

Neuman (2012:194) lists types of surveys as mail and self-administered questionnaires, web surveys, telephone interviews and face to face interviews. In this study, a questionnaire will be used to collect primary data. The advantage of web-based surveys is that it will be easier to reach a large number of the CHS academic staff at the same time. It will also provide the academic staff with the assurance that their responses will remain anonymous because they respond in the absence of the researcher. This guarantees the truthfulness of the responses given by respondents (Leedy and Ormrod 2010). However, Pickard (2007) argues that this can in turn it deprives both the researcher and the respondents of the opportunity to ensure that the respondent understands the questionnaire. This according to Leedy and Ormrod (2013: 202) results in misinterpretation of questions which can also be another limitation.

Neuman (2011) points out that web surveys are divided into two types: static and interactive web. Static is similar to the presentation of a page of paper, the only difference being that it is on a computer screen. Whereas interactive or email surveys have contingency questions and they are capable of presenting different questions to different respondents, depending on prior responses. Leedy and Ormrod (2010: 203) also explain that online surveys “can be adapted based on a participant’s previous responses, for instance if a person responds “no” to the question, do you smoke cigarettes? the questionnaire software will subsequently skip questions related to smoking habits”. The questionnaire of this study consisted of contingency questions as mentioned in section 4. The researcher viewed this as a solution to the issue of the relevancy of questions to respondents, as mentioned in the following paragraphs.

Neuman (2012:194) further notes that web-based surveys are, however, restricted to respondents with Internet access, which prevents less educated, older, low income and rural dwelling respondents from participating. Leedy and Ormrod (2010:204) further add that participation can be limited to people who are “(a) comfortable with computers (b) spend fair amount of time on the Internet...” This does not translate

into the limitations of this study because the CHS academic staff are highly educated and also have access to the internet.

Leedy and Ormrod (2010) mention that another disadvantage is that respondents in the context of the research topic, must be people who *enjoy* taking part in research studies and have been sufficiently stimulated by the research topic to participate. The researcher in this study assumed that this would be a topic of interest to academics because they conduct teaching and learning online. This is because Unisa is a distance learning university and academics at Unisa communicate with their students online. Unisa academics use computers to send tutorial letters, announcements and other academic communications. Another advantage is that CHS academic staff do research on regular basis.

Neuman (2011) further mentions that protecting the respondent's privacy by means of securing web sites with passwords or pins and also high confidentiality protection can be another disadvantage. Babbie (2013:261) mentions that one of the tools for conducting online surveys is SurveyMonkey. The researcher employed this tool because responses are stored anonymously on its database. Therefore, it will be easy to apply the principle of anonymity because respondents will not be required to identify themselves.

According to Neuman (2011) the need to verify the compatibility of various web software and hardware is also one of the disadvantages of using web-based questionnaires. This verification was applicable in this study, because the questionnaire will be sent via email with a link to SurveyMonkey.

Leedy and Ormrod (2013:191) state that the use of questionnaires has the limitation of a low return rate. However, these limitations can be overcome in this study by using the following guidelines:

Leedy and Ormrod (2005:190) concur that a researcher has to communicate exactly how he/she wants respondents to respond e.g. in this study the researcher made the questionnaire short and with clear instructions by employing a five-point Likert scale. Babbie (2013:217) highlights the fact that the Likert scale is the method developed by Rensis Likert with the aim of improving the levels of measurement in social research.

It uses standardised response categories such as strongly agree, agree, disagree and strongly disagree.

Pickard (2007) adds that another limitation in using a questionnaire is inadequate questionnaire design. This can discourage respondents from participating and thus the researcher may not obtain enough information to analyse data accurately. Pickard (2007) suggests that this can be resolved by constructing a well-designed questionnaire which:

- contains the research question
- provides the required information
- prioritises the list of questions
- evaluates questions in terms of whether they are understandable
- ensures that there is no ambiguity, bias, or offensive content
- ensures that open-ended and closed-ended questions are scaled
- constructs the wording of each question
- has an organised structure

In this study the researcher took the listed characteristics into consideration when formulating a questionnaire.

The researcher also attached a cover letter to the questionnaire, explaining the value of the study and its significance in the teaching and learning processes of the academics. The researcher sent questionnaires to departments at different times. This enabled the researcher to know how many from various designates have responded and how many still need to respond. Leedy and Ormrod (2013:204), suggest that a reminder be sent each week or every two weeks. Leedy and Ormrod (2013), however, argue that a questionnaire is supposed to be anonymous and should not be easy to know who has responded and who has not. As such, different codes should be put on each copy that will be sent out and a record kept of which number was sent to which person. When the questionnaire is returned, the person's name must be removed from the list. In this study the researcher's email address was

included in the questionnaire so that academic staff know where to return their responses. However, it was not easy for the researcher to know who has returned the questionnaire or who has not yet done so because the survey was online and was the questionnaire was anonymous. Thus, the researcher sent a reminder to all academic staff with the ones that have already returned the questionnaires being requested to ignore the reminder. The researcher was willing to also provide a summary of the results to those who wish to receive it.

### **3.4 Data collection instrument**

The researcher based the questions on the research objectives in chapter 1, section 1.5. There were seven parts and 24 questions in the questionnaire, consisting of both closed-ended and open-ended questions. Closed-ended questions, as mentioned in section 3.1, made it easier for the researcher to quantify the responses e.g. questions that contained Likert scale, i.e. strongly disagree, agree, neutral, disagree and strongly disagree. This includes other multiple choice questions such as those that required an academic staff to choose the most appropriate response from a list e.g. a question about the ranks that academics occupy at Unisa: professor, associate professor, senior lecturer, lecturer, junior lecturer and other.

Questions that are irrelevant to the research problem were categorised under demographic data. This information helped the researcher to discover information that might at a later stage be useful in analysing data e.g. information about gender and age. This data revealed the potential of more usage of e-book by a particular age group and gender. According to Neuman (2012:185) these questions are: (i) easier and quicker for respondents to answer; (ii) easier to compare; (iii) easier to code and analyse statistically; (iv) provide fewer irrelevant and confused answers to questions. These kinds of questions will allow for effective decision making.

Neuman (2012) further notes that closed-ended questions have the following disadvantages: respondents may be frustrated because their desired answer is not a choice; it is confusing if many response choices are offered; they force respondents to make choices they would not make in the real world; and a respondent with no opinion or no knowledge can answer anyway. In this study, these disadvantages were overcome by using a combination of both closed-ended and open-ended questions.

Using open-ended questions assisted the researcher to validate the closed-ended questions given by academics, i.e. open-ended questions acted like follow up questions to closed-ended questions for confirmation. This was done by requesting academics to provide details if their response differs from the options provided in that particular question e.g. “other (please specify)”. This option was also used to accommodate respondents with no relevant answer to choose from. In some of the questions, the researcher requested academic staff to select more than one response in order to avoid limiting respondents. Neuman (2012:184) confirms that “You can reduce disadvantages of a question form by mixing open-ended and closed-ended questions in a questionnaire. Many probes can improve accuracy on questions....”

Open-ended questions helped the researcher to permit an unlimited number of possible answers. In this manner, the academic staff were able to give recommendations on how to increase the usage of e-books. This helped to provide more clarity, a greater understanding and explanation of the answers the academic staff had given to closed-ended questions. These kinds of questions (open-ended questions) also helped the researcher to discover unexpected findings. They, however, did have the disadvantage of different responses giving different degrees of detail in answers. According to Babbie (2013:396) “...any particular piece of data may be given several codes...”

The researcher carefully considered the wording of each and every question in the questionnaire to avoid attracting unnecessary details, for example:

How often do you use e-books?	
Regularly	
Sometimes	

This was because as Neuman (2012) maintains, that responses may be irrelevant or may be buried in useless details. The researcher also instructed the respondent to skip to the next question if the first one is not relevant to that particular respondent, e.g. are they aware of the availability of e-books in the Library and if no, skip the next question about how they became aware of the availability of e-books. This helped to

avoid questions that reflect assumptions. According to Neuman (2011:323) some questions may apply to specific respondents and he advises researchers not to ask irrelevant questions. He refers to these questions as contingency questions, which means a two-part question.

Another justification of using open-ended questions is that participants in this study are highly literate and therefore less literacy or illiteracy will not be limitations of this study.

The researcher ensured that questions are organised in a logical order and grouped to ensure that they produce the desired responses. For example, Part I contained demographics such as age, gender, department and academic ranks. The researcher employed three levels of measurement, namely nominal, ordinal, interval, and a ratio level of measurement. For example, gender as a nominal level of measurement was used to discover how male versus female perceive the usage of e-books, as additional information to the study. The ordinal level of measurement helped to rank academics in their different ranks, i.e. professors, associate professors, senior lecturers, lecturers, junior lecturers. The researcher intended to understand academics' level of awareness, how many times each group use e-books and for what purpose, which group use e-books less and the reason why they use e-books less. The interval level of measurement was used for academic staff to indicate the age group in which they fall under. According to Babbie (2013:180) nominal measures refer to names or labels as characteristics of variables, whereas ordinal measure ranks variables ranging from more or less e.g. more than the other, and interval measure separates attributes with logical distances between them.

Part II was on questions seeking information on awareness. Part III was seeking the usage of e-books. Part IV was on seeking information on reasons for low usage. Part V was about frequency of usage of e-books. Part VI was on asking frequency of usage of e-books (the pattern) Part VII was requesting academic staff to recommend strategies to increase the usage.

The researcher also ensured that the questions asked provided answers to the research problem of the study. In this study, simple English was used and the use of

jargon, e.g. abbreviations, was avoided. A limited number of open-ended questions was used in order to avoid taking up more of respondents' time.

The Likert scale was used to evaluate behaviour, belief and attitude. This helped to measure the responses using different degrees of measurement, e.g. to questions 16 and 17, which in turn enabled the researcher to determine what degrees of responses are rated the most.

### **3.5 The research population**

This section covers the processes that the researcher followed in gathering data from CHS academics for analysis and interpretation. These processes are discussed in the next sub-sections.

The researcher wanted to gain information on how academic staff in the CHS perceive the usage of e-books. Therefore, academic staff in the CHS form the population for this study. Matthews and Ross (2010:154) refer to the concept population as "the total number of cases that can be included as research subjects". Kumar (2011:194) adds that the "class, families living in the city or electorates from which you select your sample are called the population or study population". The College of Human Sciences is comprised of nineteen departments, namely: African Languages; Afrikaans and Theory of Literature; Anthropology and Archaeology; Art History, Visual Arts and Musicology; Biblical and Ancient Studies; Christian Spirituality, Church History and Missiology; History; Communication Science; Development Studies' English Studies; Health Studies; Information Science; Linguistics and Modern Languages; Philosophy, Practical and Systematic Theology; Political Science; Psychology; Social Work; and Sociology. There were 141 professors, 15 associate professors, 85 senior lecturers, 199 lecturers and 12 junior lecturers. The entire population consists of 452 academics. The researcher did not need to use sampling because the population was not too large. Zmuk, Lutitsky and Dragija (2016:41) attest that if a target population is small and a sampling approach is supposed be used instead of census, the drawn sample will also be small and every sample unit tend to strongly influence the results. Stimson (2014: 103) states that data that cover the entire population is referred to as population census. The targeted population had

equal chance to participate in the survey. However, to ensure representation of rank and discipline (department), the study took cognizance of the percentage distribution of the population as depicted in Tables 3.1 to 3.4 below.

**Table 3.1 Percentage ranked distribution of academic staff in CHS (2013)**

Name of Department	Professor	Associate Professor	Senior Lecturer	Lecturer	Junior Lecturer	Total %of CHS
African languages	12 8.51%	1 6.67%	7 8.24%	17 8.54%	1 8.33%	38 8.41%
Afrikaans and Theory of Literature	6 4.25%	0 0.00%	4 4.71%	8 4.02%	1 8.33%	19 4.20%
Anthropology and Archaeology	2 1.42%	0 0.00%	1 1.18%	2 1.01%	0 0.00%	5 1.11%
Art History, Visual Arts and Musicology	6 4.26%	1 6.67%	3 3.53%	8 4.02%	1 8.33%	19 4.20%
Biblical and Ancient Studies	9 6.38%	1 6.67%	5 5.88%	12 6.03%	1 8.33%	28 6.19%
Christian Spirituality, Church History and Missiology	4 2.85%	1 6.67%	2 2.35%	5 2.51%	0 0.00%	12 2.65%
Communication Science	12 8.51%	1 6.67%	8 9.41%	17 8.54%	1 0.00%	39 8.63%
Development Studies	6 4.26%	1 6.67%	4 4.71%	10 5.03%	1 8.33%	22 4.87%
English Studies	16 11.35%	2 13.33%	10 11.76%	22 11.06%	1 8.33%	51 11.28%
Health Studies	7 4.96%	1 6.67%	4 4.71%	10 5.03%	1 8.33%	23 5.09%
History	2 1.42%	0 0.00%	1 1.18%	3 1.51%	1 8.33%	7 1.55%
Information Science	8 5.67%	1 6.67%	5 5.88%	13 6.53%	1 8.33%	28 6.19%

Linguistics and Modern Languages	7 4.96%	1 6.67%	4 4.71%	10 5.03%	0 0.00%	22 4.87%
Philosophy, Practical and Systematic Theology	9 6.38%	1 6.67%	5 5.88%	12 6.03%	1 8.33%	28 6.19%
Political Science	7 4.96%	1 6.67%	4 4.71%	10 5.03%	0 0.00%	22 4.87%
Psychology	10 7.09%	1 6.67%	6 7.06%	14 7.04%	0 0.00%	31 6.86%
Religious Studies and Arabic	4 2.84%	0 0.00%	2 2.35%	5 2.51%	0 0.00%	11 2.43%
Sociology	4 2.84%	0 0.00%	3 3.53%	7 3.52%	0 0.00%	14 3.10%
Social Work	10 7.09%	1 6.67%	7 8.24%	14 7.04%	1 8.33%	33 7.31%
Total CHS	141 31.19%	15 3.32%	85 18.81%	199 44.03%	12 2.65%	452 100.00%

**Table 3.2: Summary Percentage distribution of CHS academics by department (2013)**

Department	%	Department	%
African Languages	8.41	History	1.55
Afrikaans and theory of literature	4.20	Information Sciences	6.19
Anthropology and Archaeology	1.11	Linguistics and Modern Languages	4.87
Art History, Visual Arts and Musicology	4.20	Philosophy, Practical and Systematic Theology	6.19
Biblical and Ancient Studies	6.19	Political Sciences	4.87
Christian Spirituality, Church history and Missiology	2.65	Psychology	6.86
Communication Sciences	8.63	Religious Studies and Arabic	2.43
Development Studies	4.87	Sociology	3.10
English Studies	11.28	Social Work	7.31
Health Studies	5.09	Total	100.00

**Table 3.3 : Summary percentage distribution of CHS academics by ranks (2013)**

Professor	31.19%
Associate Professor	3.32%
Senior Lecturer	18.81%
Lecturer	44.03%
Junior Lecturer	2.65%
Total	100.00%

**Table 3.4 Percentage ranked distribution of academic staff within Departments**

Name of Department	Professor	Associate Professor	Senior Lecturer	Lecturer	Junior Lecturer	Total
African languages	12 31.6%	1 2.6%	7 18.4%	17 44.7%	1 2.6%	38 100%
Afrikaans and Theory of Literature	6 31.6%	0 0.0%	4 21.1%	8 42.1%	1 5.2%	19 100%
Anthropology and Archaeology	2 40.0%	0 0.0%	1 20.0%	2 40.0%	0 0.0%	5 100%
Art History, Visual Arts and Musicology	6 31.5%	1 5.3%	3 15.8%	8 42.1%	1 5.3%	19 100%
Biblical and Ancient Studies	9 32.1%	1 3.6%	5 17.9%	12 42.8%	1 3.6%	28 100%
Christian Spirituality, Church History and Missiology	4 33.3%	1 8.3%	2 16.7%	5 41.7%	0 0.0%	12 100%

Communication Science	12 30.8%	1 2.6%	8 20.4%	17 43.6%	1 2.6%	39 100%
Development Studies	6 27.3%	1 4.5%	4 18.2%	10 45.5%	1 4.5%	22 100%
English Studies	16 31.4%	2 3.9%	10 19.6%	22 43.1%	1 2.0%	51 100%
Health Studies	7 30.4%	1 4.3%	4 17.4%	10 43.5	1 4.3%	23 100%
History	2 28.5%	0 0.0%	1 14.3%	3 42.9%	1 14.3%	7 100%
Information Science	8 28.5%	1 3.6%	5 17.8%	13 46.4%	1 3.6%	28 100%
Linguistics and Modern Languages	7 31.8%	1 4.5%	4 18.2%	10 45.5%	0 0.0%	22 100%
Philosophy, Practical and Systematic Theology	9 32.1%	1 3.6%	5 17.9%	12 42.8%	1 3.6%	28 100%
Political Science	7 31.8%	1 4.5%	4 18.2%	10 45.5%	0 0.0%	22 100%
Psychology	10 32.3%	1 3.2%	6 19.3%	14 45.2%	0 0.0%	31 100%
Religious Studies and Arabic	4 36.4%	0 0.0%	2 18.2%	5 45.4%	0 0.0%	11 100%
Sociology	4	0	3	7	0	14

	28.6%	0.0%	21.4%	50.0%	0.0%	100%
Social Work	10	1	7	14	1	33
	30.3%	3.0%	21.2%	42.4%	3.0%	100%
Total	141	15	85	199	12	452

### 3.6 Pilot testing

The feasibility of the study was measured by means of doing a pre-test, whereby the questionnaire was double checked by the researcher to ensure that it is understandable. The researcher ensured that the questionnaire yielded the desired results by pilot-testing the questions as follows:

- Pilot data was collected with a target population similar to that of the main study. According to Baker (1994) 10 -20% of the sample size is reasonable for conducting a pilot. Forty- eight permanent academic staff were surveyed. Findings of the pre-test were used to make some adjustments on the methodology, questions, format and scale (Creswell 2014:161).
- The researcher also tested whether SurveyMonkey would be able to code the responses obtained from the 48 academics who participated in the pilot test. Neuman (2006:267) highlights that the researcher needs to "...pilot test any apparatus (e.g. computers, video cameras, tape recorders, etc.) ...that was used in the study".

### 3.7 Measuring of reliability and validity

According to Leedy and Ormrod (2005:29) reliability refers "to consistency with which a measuring instrument yields a certain result when the entity being measured hasn't changed". Neuman (2011:209-218) notes the following:

- it is rare to have perfect reliability, but this can be improved by clearly conceptualising constructs (this means developing unambiguous and clear theoretical definitions). In this study, questions were structured according to constructs, e.g. frequency served as a construct that measures how many times academics use e-books.

- precise level of measurement was used. More precise levels have a better chance of being reliable than less precise measures. As mentioned in section 3.4, the researcher included additional responses for those academic staff who did not have appropriate responses to select from the list of multiple choice questions, thus enabling them to provide consistent responses.
- Neuman (2011) further adds that perfect reliability can also be achieved by using multiple indicators (this increases reliability and can build on triangulation and take measurements from a wider range of conceptual definitions) and using pilot tests (means using one or more drafts or preliminary versions before applying the final version during hypothesis testing). This study also employed multiple indicators to ensure the consistency of responses given by academics with regard to their perceptions of using e-books. Multiple indicators apply in this study through the usage of open-ended and closed-ended questions and the Likert scale. In this study the constructed questions were validated to ensure that they are relevant to the research questions of the study, e.g. questions 5-7 (awareness), 8-16 (usage of e-books), 17 (reasons for low usage), 18-19 (frequency of usage of e-books), 20, (frequency of usage of e-books (the pattern)) and 21-24 (recommendations to increase the usage of e-books) thus ensuring the truthfulness of the responses.
- Nachmias, Frankfort-Nachmias & Nachmias, (1996) state that validation should be done by an expert in the field. In this study the supervisor did validation by ensuring that the questionnaire meets the objectives of the study. Neuman (2011:214) refers to this measurement as validity. The researcher formulated the research questions in such a manner that they correspond with the objectives of the study as stated in chapter 1, section 1.4. This was done to achieve the initial aim of the study, which was to establish CHS academics' perception of the use of e-books, especially in their core business of teaching and research, in order to invest in a well-informed e-book collection, as stated in chapter 1 section 1.4.

Neuman (2006:192) states that validity is difficult to achieve as compared to reliability. Babbie (2013:263) concurs that surveys are generally weak on validity and strong on reliability because people's opinions seldom take the form of strong agreeing, agreeing, disagreeing or strongly disagreeing with a specific statement. The researcher in this study validated the responses by repeating a question in different

wording and format, e.g. one of the questions asked if academic staff use e-books and another asked the respondents to indicate the e-books services he/she has used.

The open-ended questions used in this study were expected to provide a detailed account of how people understand the concept of e-books, which is what is being studied. Creswell (2009:190) indicates that there are strategies that can be used to ensure validity, namely triangulate, use member checking, use rich, thick description, clarify the bias the researcher brings to the study, present negative or discrepant information, spend prolonged time in the field, use peer debriefing, use an external auditor. For the purpose of this study the researcher used a strategy to clarify the bias the researcher brings to the study by interpreting the findings based on the background of the study, e.g. age, gender, ranks, and department. This indicated how the researcher arrived at the conclusions of the study.

### **3.8 Administering the questionnaire**

The questionnaires were personally distributed from door to door to 452 permanent academic staff in the College. The researcher did not sample because the population is small to permit sampling therefore representativeness was not going to be guaranteed (Saunders, Lewis and Thornhill 2012). Zmuk, Lutilsky and Dragija (2016:41) attest that if a target population is small and a sampling approach has to be used instead of census, the drawn sample will also be small and every sample unit tend to strongly influence the results. SurveyMonkey via email, was also used to send questionnaires. SurveyMonkey records the number of responses received in total, and further calculates responses received per question and reports on the number of respondents skipped on each respective question. The respondents were given a period of 30 days to fill in the questionnaires and return them.

There were challenges that were encountered during the data collection process. Some of the academic staff were not available during the study and when SurveyMonkey was sent via emails, some of the emails were undelivered. Some respondents were not available to return the printed questionnaires, some questionnaires were misplaced, and some respondents preferred responding online.

First phase of data collection dealt with distributing a paper-based questionnaires

from door to door to academic staff. According to Leedy and Ormrod (2013: 201) questionnaires distributed hand to hand show a high response rate while sending e-mail questionnaires to people one does not know one can expect a low response rate because they have nothing to gain. The researcher therefore, distributed questionnaires door to door to respondents within the College. A questionnaire was delivered to the Department of Communication Science in August 2016. Another batch was distributed in August 2017 to the Department of African languages, Afrikaans and Theory of Literature, Anthropology and Archaeology, Art History, Visual Arts and Musicology, Biblical and Ancient Studies, Christian Spirituality, Church History and Missiology, Development Studies, English Studies, Health and History. Another batch was distributed in September 2017 to the department of information Science, Linguistics and Modern Languages, Philosophical, Practical and Systematic Theology, Political Sciences, Psychology, Religious Studies and Arabic, Sociology and Social Work. Reminders were sent because the response rate was poor. From October 2017 to January 2018 the researcher decided to send email invitation (with SurveyMonkey link) to all academics in the CHS. Respondents can access email wherever they are and anytime. Mailing list of academic staff in the CHS was obtained from the Unisa intranet. Those that have already responded to the paper-based questionnaire were requested to ignore the invitation. Reminders were sent weekly and monthly. The response rate was still poor.

Between Mid- January and Mid -February the researcher made another effort to improve the response rate by again distributing questionnaires door to door to the respondents who had not yet responded. The overall response was 165 (37%) responses. The challenge with the returned questions is that some of the respondents did not respond to all of the questions in the questionnaire. Nevertheless, the researcher proceeded with the analysis of the results. Morton, Bandara, Robinson, and Carr (2012:107) state that low response rate can be as a result of even if a researcher can locate and contact participants, there is still a likelihood that they are not willing to take part and this cannot be used as an indication that the study results have low validity. Therefore, discussion of the findings is based on responses of the 165 permanent professional participants who completed the questionnaire sent to them.

### **3.9 Data analysis**

According to Leedy and Ormrod (2013: 84-87) forms of measurement in research fall into four categories, i.e. nominal, ordinal, interval and ratio. These categories determine the statistical procedure that will be used when processing data. Nominal was used to measure data in the form of names. It allowed the researcher a means of indicating the most frequently occurring category, e.g. more males than females use e-books. This measurement was used to compare if the diversity of academic staff in the CHS has an influence on their awareness levels. Ordinal was used to rank order data that is being measured, e.g. the researcher arranged academics according to their academic ranks in the CHS, i.e. associate professor, professor, senior lecture, lecturer and junior lecture. Data was organised according to their categories. The Likert scale was used to rank order the responses. Interval was used to measure the distance between variables. The ages of the CHS academics were arranged according to the interval scale, e.g. for age 20-29 years. In this study, the researcher analysed whether there was a difference between how the sampled associate professors use e-books as compared to other categories in the CHS. Falissard (2012:72) concurs that the main objective of a survey is to estimate the association between variable.

Survey Monkey filtered multiple choice responses to determine whether gender, age, rank and department have an influence on the academic staff's level of awareness and usage preferences. The researcher then analysed the results of these responses by means of tables and graphs. Neuman (2011:174) illustrates that in quantitative research, data is analysed by means of illustrations with a brief explanation of what they mean. In this study text analysis of SurveyMonkey was used to analyse recommendations that respondents made with regards to the usage of e-books. The researcher then summarised these type of responses. Neuman (2011:507-508) highlights that "researchers scan patterns of similarities and differences across cases and try to come to terms with their diversity...".

### **3.10 Ethical considerations**

A consent letter informing the CHS academic staff about the purpose of this study was attached to the online questionnaire. One of the ethical considerations mentioned by Neuman (2011:145) was to secure prior voluntary consent when possible. Leedy and Ormrod (2010:204) highlight that online surveys allow a researcher to apply ethics easily. Therefore, in this study, the researcher requested the CHS academic staff to read the consent letter before proceeding with the survey. Neuman (2011) concurs that not forcing anyone into participating is one of the ethical issues that needs to be taken into consideration when conducting a survey.

In this study, privacy, anonymity and confidentiality as ethical issues were also taken into consideration. This was done by providing an instruction for academic staff to keep their participation anonymous. Neuman (2012: 258) mentions that “the primary ethical concern is the privacy and confidentiality of using information gathered by someone else”. The researcher was willing to communicate the results to the CHS academic staff, as this is one of the basic principles of ethical social research mentioned by Neuman (2011:155).

### **3.11 Summary of chapter 3**

This chapter discussed the methodology used for collecting and analysing the data required to answer the research questions in this study. Based on the type of questions that were asked, quantitative research approach was chosen. The reasons for choosing this particular method was explained. The researcher chose a survey as the most appropriate design for this study. An online questionnaire was chosen as the instrument. Development of the measuring instrument was discussed. The data collection procedure was explained. Data capturing was included. The advantages and disadvantages of the preferred method, design and instrument were highlighted. The researcher explained how this study dealt with the disadvantages. It also gave reasons why census was chosen instead of sampling.

The next chapter focuses on the statistical analysis of the data that was obtained by the questionnaires.

## CHAPTER 4

### DATA PRESENTATION AND ANALYSIS

#### 4.1 Introduction

According to Albers (2017:215) “the data analysis is where a researcher uncovers the relationships and gains an understanding of what the stuff from the data collection really means and how it is relevant”. This chapter presents, analyses and interprets the findings from data that were collected using closed and open-ended questionnaires.

A quantitative approach was used in analysing data. Neuman (2012:115) explains that in the quantitative approach “we develop techniques that can produce quantitative data (i.e. data in the form of numbers)”. Albers (2017: 215) states that “a quantitative research study collects numerical data that must be analysed to help draw the study conclusions”. Quantitative data from bar charts and tables were descriptively analysed and interpreted. Open-ended questions were summarised. This was done to ensure that the respondents’ opinions with regard to the use of e-books were not disregarded. Rubin and Babbie (2010: 94) say open-ended questions can also be used in quantitative research. The questionnaire was divided into seven main parts:

**Part I** comprised questions which were aimed at eliciting respondents’ age, gender, department in the college and academic rank, which are relevant to the objectives of the study.

**Part II** covered a range of key research questions about the awareness such as Are you aware of availability of e-books in the Unisa Library? and which of the following e-book services are you aware of? Respondents were able to choose yes or no to a number of questions as shown in the appendix.

**Part III** pertained to the use of e-books and respondents could choose yes or no to questions like “Do you use e-books?”, “If both print and electronic copies were available, which would you prefer?”, “Do you prescribe e-books as textbooks for your students?”, “Do you find the e-book collection available at the Unisa Library adequate for your teaching and research requirements?”, “Which of the following statements

best describes how you use e-books?”. Respondents were asked to select more than one option for questions like “For what purpose do you use e-books” (preparing course reading, teaching, research, study, leisure or all purposes), “Which devices do you use to gain access to e-books?”, “Indicate the importance you attach to the following e-book features (very important, important, average importance, not important or not applicable)”. Details of the questionnaire are shown in the appendix.

**Part IV** consisted of choosing appropriate reasons for low usage of e-books. A number of questions were asked, as shown in the questionnaire. (See appendix).

**Part V** included frequency of reading e-books, where respondents could choose never, often, rarely, not sure or occasionally. The question, “How frequently do you use e-books for the following purposes: preparing course readings, study, teaching, all purposes?” had the options never, rarely, occasionally, often, or very often.

**Part VI** concerned the frequency of e-book usage, in which the aim was to investigate the usage pattern, which comprised reading the whole e-book, a chapter from an e-book or excerpts from an e-book. The respondent could choose one option from very often, often, occasionally, rarely and never.

**Part VII** consisted of the recommendations that can be used to increase the use of e-books. The respondents were requested to provide recommendations.

The above questionnaire structure pertains to the key investigative questions in an attempt to ascertain the academic use of e-books in the College of Human Sciences.

The questionnaire was distributed to 452 respondents to the Department of Communication Science, the Department of African languages, Afrikaans and Theory of Literature, Anthropology and Archaeology, Art History, Visual Arts and Musicology, Biblical and Ancient Studies, Christian Spirituality, Church History and Missiology, Development Studies, English Studies, Health and History, department of information Science, Linguistics and Modern Languages, Philosophical, Practical and Systematic Theology, Political Sciences, Psychology, 2 Religious Studies and Arabic, Sociology and Social Work. Reminders were sent for those who had not responded. The overall response rate was 165 (37%).

## 4.2 Part I: Demographic information

Demographic and background information was requested in order to compile a profile of professional permanent academic staff who are currently in the College of Human Sciences and provide information which might have a bearing on the findings of the study.

This section presents demographic data of academic staff in the College of Human Sciences (CHS). It consists of four variables and each of these variables will be analysed independently and then paired up to assess their impact on e-book usage in the College.

### 4.2.1 Age

The respondents were asked to indicate their age. This is important in order to determine whether age has an influence on how respondents in the CHS use e-books.

Of the 165 respondents, 164 (99.39%) responded to this question, while there was one (0.61%) respondent who did not respond to this question. The results show that 36.36% were aged between 30 and 39 years, 20.61% were between 40 and 49 years, 20.61% were between 50 and 59 years, 12.73% were 60 years and over and 9.09% were between 20 and 29 years. The largest group of respondents is that aged 30-39. It was vital to establish the age distribution because the researcher assumes age might influence how respondents perceive or engage in the usage of e-books. This is because there is a general assumption that Generation X (early-to mid-1960s to the early 1980s) and Baby Boomers (between 1946 and 1964) are not necessarily responsive to technology.

Figure 4.1 summarises their age distribution.

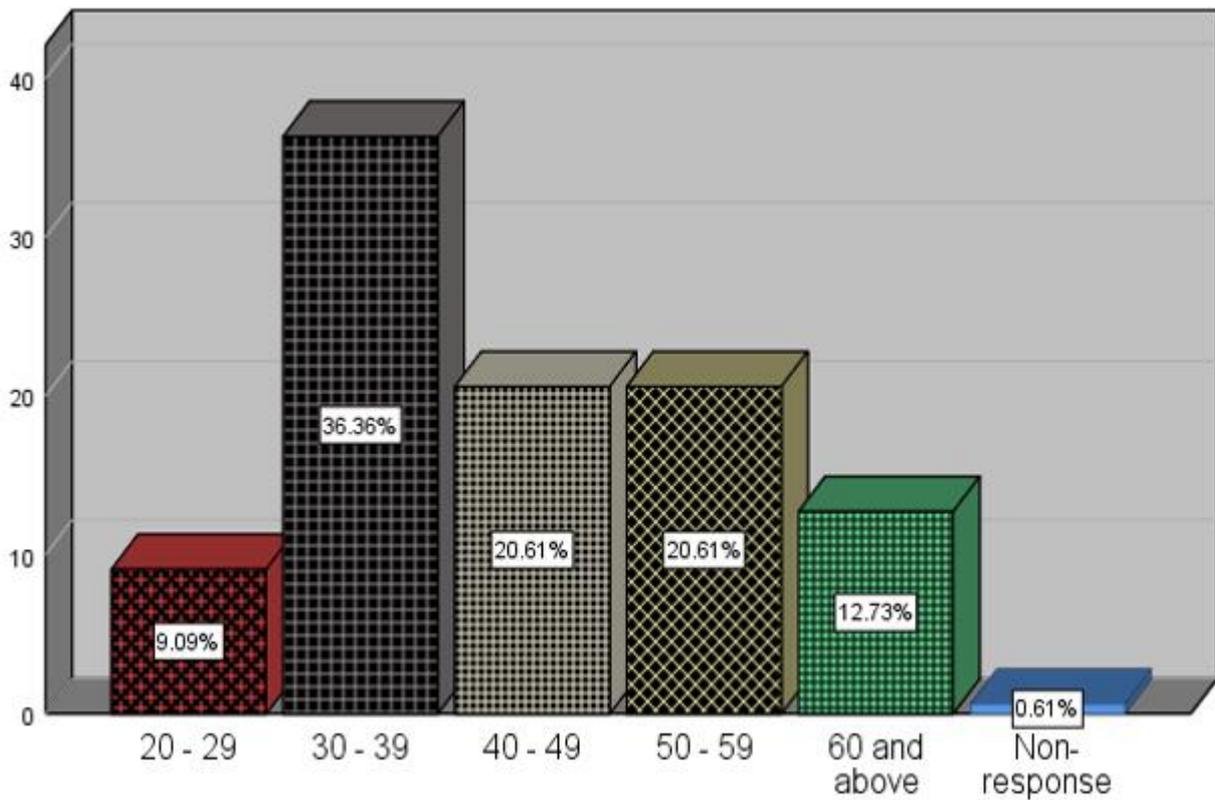


Figure 4.1: Age distribution (N=165)

#### 4.2.2 The gender

The study sought to establish the gender distribution of the respondents. This was important to ensure that there was fair representation. The table below shows the gender distribution of the respondents.

Table 4.1: Gender distribution (N=165)

		<b>Gender</b>			
		Freque ncy	Percent	Valid Percent	Cumulative Percent
Valid	Male	72	43.6	43.6	43.6
	Female	92	55.8	55.8	99.4
	Non- response	1	.6	.6	100.0
	Total	165	100.0	100.0	

Of the 165 respondents, 164 (99.4%) responded to this question, while there was one respondent (0.6%) who did not respond. The above table shows that of the 164, 92 respondents (55.8%) were females, while 72 were male (43.6%). What is significant is that these results positively correlate to the gender distribution of academic staff in the CHS, which has 51% (230) females and 49% (222) males, thereby providing a good gender representation for the study.

#### 4.2.3 Distribution by academic department

Table 4.2 below depicts the departmental distribution of the respondents.

Table 4.2: Distribution by academic department (N=165)

<b>Name of Department</b>	<b>Target Population</b>	<b>Response rate within College</b>	<b>Response rate within the department</b>
African languages	38 (8.4%)	12 (7.3%)	32%
Afrikaans and Theory of Literature	19 (4.2%)	9 (5.5%)	47%
Anthropology and Archaeology	5 (1.1%)	5 (3.0%)	33%
Art History, Visual Arts and Musicology	19 (4.2%)	2 (1.2%)	(11%)
Biblical and Ancient Studies	28 (6.1%)	7 (4.2%)	25%
Christian Spirituality, Church History and Missiology	12 (2.7%)	6 (3.6%)	50%
Communication Science	39 (8.6%)	30 (18.2%)	(77%)
Development Studies	22 (4.9%)	6 (3.6%)	(27%)
English Studies	51 (11.3%)	22 (13.3%)	(43%)
Health Studies	23 (5.1%)	2 (1.2%)	(9%)
History	7 (1.5%)	6 (3.6%)	(86%)

Information Science	28 (6.2%)	15 (9.1%)	(54%)
Linguistics and Modern Languages	22 (4.9%)	1 (0.6%)	(5%)
Philosophy, Practical and Systematic Theology	28 (6.2%)	6 (3.6%)	(21%)
Political Science	22 (4.9%)	4 (2.4%)	(14%)
Psychology	31 (6.9%)	3 (1.8%)	(9%)
Religious Studies and Arabic	11 (2.4%)	2 (1.2%)	(18%)
Sociology	14 (3.1%)	2 (1.2%)	(14%)
Social Work	33 (7.3%)	12 (7.3%)	(42%)
Other (no department indicated)		13 (7.9%)	
Total	452 (100%)	165 (37%)	

Out of 165, 30 respondents (18.2%) were from Communication Science, 22 (13.3%) from English Studies. 15 (9.1%) from Information Science, 12 (7.3%) each from Social Work and African Languages, 9 (5.5%) from Afrikaans and Theory of Literature, 7 (4.2%) from Biblical and Ancient Studies, 6 (3.6%) from Christian, Spirituality, Church History and Missiology; 6 (3.6%) from Development Studies, 6 (3.6%) from History, 6 (3.6%) from Philosophy, Practical and Systematic Theology, 5 (3.0%) from Anthropology and Archaeology, 4 (2.4%) from Political Sciences, 3 (1.8%) from Psychology, 2 (1.2%) from Health Studies, 2 (1.2%) from Art History, Visual Arts and Musicology, 2 (1.2%) from Religious Studies and Arabic, 2 (1.2%) from Sociology and 1 (0.6%) from Linguistics and Modern Languages.

It is noticeable that the representation of 11 departments out of 19 was close to what their representation is in the College, i.e. the contribution of African Languages, Afrikaans and Theory of Literature, Anthropology and Archaeology, Biblical and Ancient Studies, Christian Spirituality, Church History and Missiology, Development Studies, Religious Studies and Arabic and Sociology in the response rate is closely similar to their ratios in the target population. The departments whose representation

in their response was higher than their ratios in the college were Communication Science, English Studies, History, Information Science and Social Work. Departments that were less represented in the response rate than in the College were Health Studies, Linguistics and Modern Languages, Philosophy, Practical and Systematic Theology, Political Sciences, Art History, Visual Arts and Musicology and Psychology. The overall response was 165 (37% of the target population), thus indicating a low response rate, which was unsatisfactory. The researcher nevertheless proceeded with the analysis of the results because attempts to improve it as stated in 3.6.2 failed. The researcher's decision to proceed with analysis of this study is supported by Morton, Bandara, Robinson, and Carr (2012:107), who say that a low response rate cannot be used as an indication that the study results have low validity. Additionally, online survey studies such as that of Thompson (2007) also had a low response rate.

#### 4.2.4 Distribution by academic rank

The respondents were asked to indicate their academic rank and table 4.3 below summarises the results.

Table 4.3 shows that almost half, i.e. 47.3% of respondents, were lecturers. Senior lecturers formed the second largest group with 40 (24.2%), followed by professors with 21 (12.7%), followed by associate professors with 14 (8.5%) and there were 12 (7.3%) that fell under "other" category, which were actually junior lecturers. None of the ranks correlate to the population because the percentages of those that responded to the questionnaire as compared to the percentages of the entire population differ with more than 2%. However, the results indicate that there were more lecturers and senior lecturers that responded to the questionnaire than professors, associate professors and junior lecturers.

Table 4.3: Distribution by academic ranks (N=165)

Category	Distribution by academic ranks	Academic rank of staff in the CHS	Observation/ conclusion: comparison between columns 2 and 3
Professor	21 (12.7%)	141 (31%)	Significant difference of 18.3%
Associate Professor	14 (8.5%)	15 (3%)	Significant difference of 5.5%
Senior Lecturer	40 (24.2%)	85 (19%)	Significant difference of 5.2%
Lecturer	78 (47.3%)	199 (44%)	Significant difference of 3.3%
Junior lecture	12 (7.3%)	12 (3%)	Significant difference of 4.3%

### 4.3 Part II: Awareness

This section presents data on awareness of e-books. It was fundamental to find out whether respondents were aware of the availability of e-books in the Library because they cannot search for them if they do not know that they exist.

#### 4.3.1 Are you aware of the availability of e-books in the UNISA library?

The question is about the awareness of e-books. Respondents had to choose one of the options such as “yes” or “no”.

The frequency table

Table 4.4: Awareness of e books (N=165)

**Awareness of e books**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	153	92.7	92.7	92.7
	No	11	6.7	6.7	99.4
	Non-response	1	.6	.6	100.0
	Total	165	100.0	100.0	

A large majority of 153 respondents (92.7%) indicated that they are aware of the availability of e-books in the Library, while 11 (6.7%) indicated that they are not aware of e-books and one respondent (0.6%) did not answer the question.

4.3.2 Channels of awareness

The researcher sought to find out how respondents became aware of e-books by asking them to choose one of the options from the list. The results are summarised below.

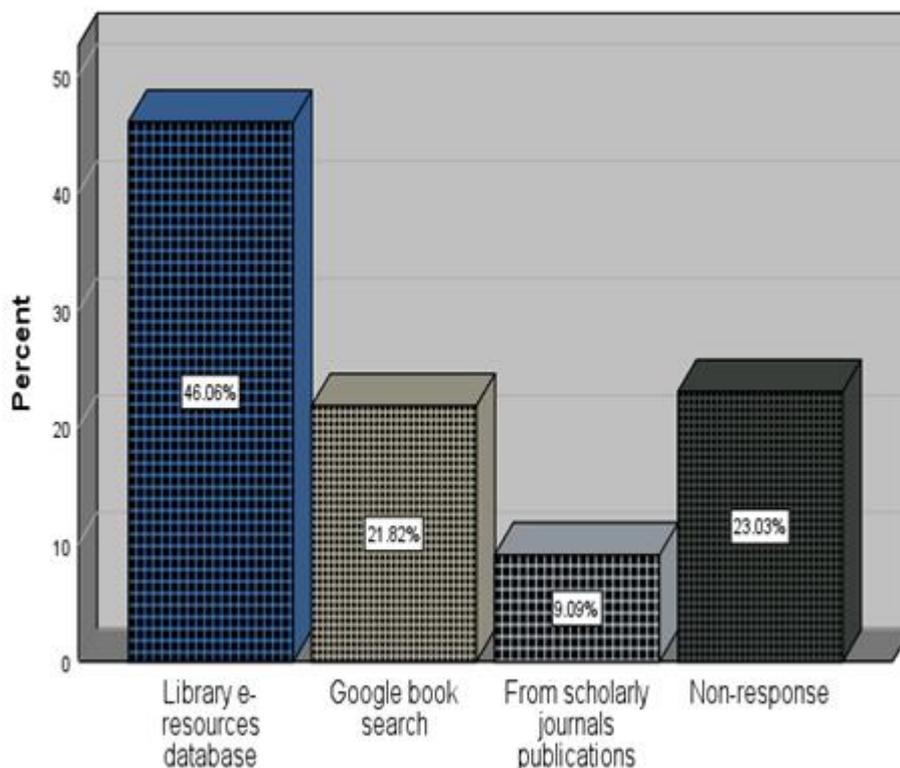


Figure 4.2: Channels of awareness about e-books (N=165)

Out of the 165 respondents, a majority of 76 (46.1%) indicated that they became aware of e-books through the library e-resources, while 36 (21.8%) revealed that they become aware via Google book search, 15 (9.10%) from scholarly journals publications and 38 (23%) did not answer the question. These findings imply that the majority of respondents came across e-books while browsing e-resources available in the catalogue, which many academic staff use because their job requires them to consult such resources in the course of their reading.

Respondents also gave comments on the following methods of awareness:

- i) Three indicated “librarian”.
- ii) Five indicated “through colleagues”.
- iii) Others indicated Kindle, newspaper, searching information, library training, as well as being part of the College Library Committee and being a publisher once.

#### 4.3.3 Awareness of the e-book services

The respondents were asked to identify e-books services of which they are aware, by choosing one option from the list as indicated below.

Table 4.5: Awareness of e book service (N=165)

**Awareness of e-book service**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Taylor and Francis e-books	64	38.8	38.8	38.8
	Springer E-journals and e-books	26	15.8	15.8	54.5
	Cambridge companion online	20	12.1	12.1	66.7
	Emerald e-books	18	10.9	10.9	77.6
	Emerald social sciences e-books	17	10.3	10.3	87.9
	De Gruyter online e-books	8	4.8	4.8	92.7
	Ebrary	5	3.0	3.0	95.8
	Brill e-books collection	4	2.4	2.4	98.2
	MyiLibrary e-books	3	1.8	1.8	100.0
	Total	165	100.0	100.0	

The majority, 64 respondents (38.8%), indicated that they were aware of Taylor and Francis E-books while 26 (15.8%) indicated that they were aware of Springer E-journals and E-books. Twenty (12.1%) pointed out that they were aware of Cambridge Companion Online, 18 (10.9%) signified that they were aware of Emerald E-Books, 17 (10.3%) indicated that they were aware of Emerald Social Sciences E-books, eight (4.8%) indicated that they were aware of De Gruyter Online E-books. However other e-book services showed lower percentages: 5 (3.0%) indicated that they were aware of Ebrary, four (2.4%) indicated that they were aware of Brill E-books Collection and 3 (1.8%) indicated that they were aware of MyiLibrary E-books. This finding is an

indication that Taylor and Francis E-Books is the most popular e-book service among the majority of respondents. It is interesting to note that some of the respondents selected other e-book services. This shows that there is a spread in terms of awareness of these e-book services.

Respondents also gave the following responses:

- i) Two indicated Ebsco.
- ii) Two indicated Sage.
- iii) Honestly, I did not take notice as long as I was able to find the information I was looking for
- iv) I just know that e-books are available through the Library.
- v) Sage e-books and Routledge.
- vi) I know they are available but I am not aware of any.
- vii) Not applicable.

The above comments are a clear indication that most of respondents are aware of a variety of e-books.

#### **4.4 Part III: Use of e-books**

This section presents the use and usefulness of e-books. The respondents were asked to respond “yes” or “no”.

##### **4.4.1 Extent of e-books usage by academics**

The respondents were asked to indicate if they are using e-books. The options were either “yes’ or “no”.

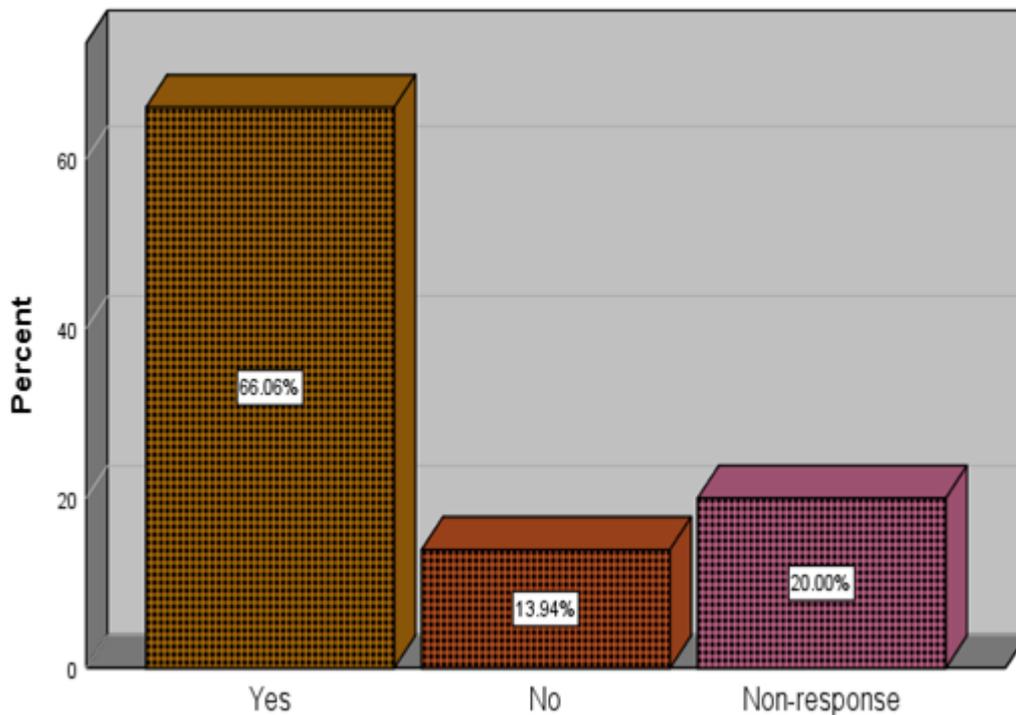


Figure 4.3: Usage of e-books (N=165)

Out of the 165 respondents, the majority, 109 respondents (66.06%), indicated that they use e-books while, 23 (13.94%) indicated that they do not use e-books. Thirty-three respondents (20%) did not respond to this question. This finding implies that the majority of academic staff in the CHS use e-books. It is encouraging to note that it is only a few respondents who indicated that they do not use e-books.

#### 4.4.2 Preference between print and electronic copies

The results of the survey have found that despite the fact that a majority indicated that they use e-books (figure 4.3, print books are preferred over e-books since 67 of the respondents (40.61%) preferred the print book over the e-book, followed by 36 (21.82%) who selected e-book and 30 (18.18) said, "it depends". Thirty-two respondents (19.39%) did not respond to this question. This shows that print books are more popular than e-books due to ease of use and access. This means print books have the potential to be even more significant for libraries and learners than e-books.

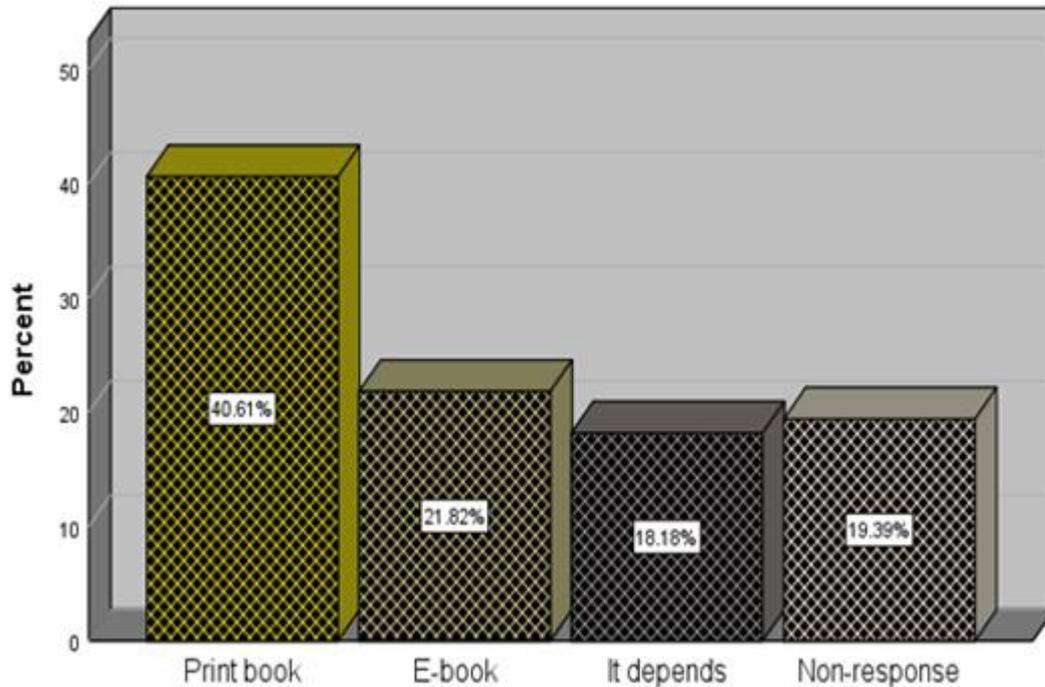


Figure 4.4: Preference between print or electronic copies (N=165)

Respondents that chose the option “it depends” gave the following comments:

- It depends on the nature of the content of the book and its classical scholarship.
- Can enlarge text/ can copy.
- Convenience of sourcing e-books is a plus. The multimedia potential of e-books also serves in their favour. But reading without staring at a screen for a while is refreshing.
- Copying a quote is problematic.
- It depends: if the e-book is user-friendly and allows highlighting making notes, it is preferable. However, some e-books do not allow such even after downloading. Another problem is that one can only download one chapter at a time and that chapter might not have page numbers, which makes it difficult to use.
- 2 (2%) said that cost is a problem.
- 7 (5%) said it depend on the purpose of reading.
- 2 (2%) said they are way more convenient.
- It depends: if one wants a book that he/she can use at home or use long term, then e-books become preferable.
- 2 (2%) said it depends: if one wants to make extensive use, then the preferred book is a print book.
- It depends: if one wants to read the whole book, then a print copy is preferred.
- 2 (2%) prefer to have both print and electronic.

- If in a hurry an e-book is the preferred copy.
- 3 (2%) of respondents said it depends on the availability of titles.
- The problem with e-books is checking in and out.
- It depends on connectivity.
- 2 (2%) said it depends on students' needs and access.
- It depends on the format that is available.

From the above comments, it is noticeable that with some respondents the reason they would not prefer e-books is because of the problems they have experienced when using them, but some nevertheless show positive experience in their usage. Some indicate that they base their decision on their usage needs while some prefer to use e-books as their second option. Accessibility also plays a role in their preferences.

#### 4.4.3 E-services used

The respondents were asked to identify e-book services they have used, by choosing one or more options from the list as indicated below. This question was important in establishing whether or not respondents use these e-book services.

Table 4.6: E-book services used (N=165)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Taylor and Francis e-books	59	35.8	35.8	35.8
Wiley online books	34	20.6	20.6	56.4
Springer e-journals and e-books	27	16.4	16.4	72.7
Cambridge companion online	24	14.5	14.5	87.3
Emerald e-books series	21	12.7	12.7	100.0
Total	165	100.0	100.0	

Of the 165 respondents, the majority, 59 respondents (35.8%), signified that they have used Taylor and Francis e-books, 34 (20.6%) indicated that they have used Wiley Online Books and 27 (16.4%) indicated that they have used Springer E-journals and E-books. Twenty-four (14.5%) revealed that they have used Cambridge Companion Online and 21 (12.7%) indicated they that they have used Emerald E-books Series. These results reveal that the most popular e-book service that respondents used was Taylor and Francis. This could imply that their usage depends on their subject needs.

#### 4.4.4 The purpose of using E-books

The researcher sought to determine the purpose for which respondents use e-books. The respondents were asked to choose more than one option, as indicated below

Table 4.7: Purpose of using e books (N=165)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Preparation of course readings	18	10.9	10.9	10.9
Teaching	32	19.4	19.4	30.3
Research	63	38.2	38.2	68.5
Study	32	19.4	19.4	87.9
Leisure	7	4.2	4.2	92.1
All of the above	13	7.9	7.9	100.0
Total	165	100.0	100.0	

Of the 165 respondents the majority, 63 respondents (38.2%), indicated that they use e-books for conducting research while 32 (19.4%) use them for both teaching and study. 18 (10.9%) of the respondents use them for preparing course readings while 13 (7.9%) use e-books for all the above purposes and as few as 7 (4.2%) use e-books for leisure. These results indicate that a large number of respondents use e-books for the purpose of conducting research, followed by teaching and study, which do not

differ broadly in their usage rate. This is because e-books offer convenience, the ability to view pages from on and off campus and 24/7 accessibility.

#### 4.4.5 Prescribing e-book as textbook

The respondents were asked to indicate whether they prescribe e-books as textbooks for their students.

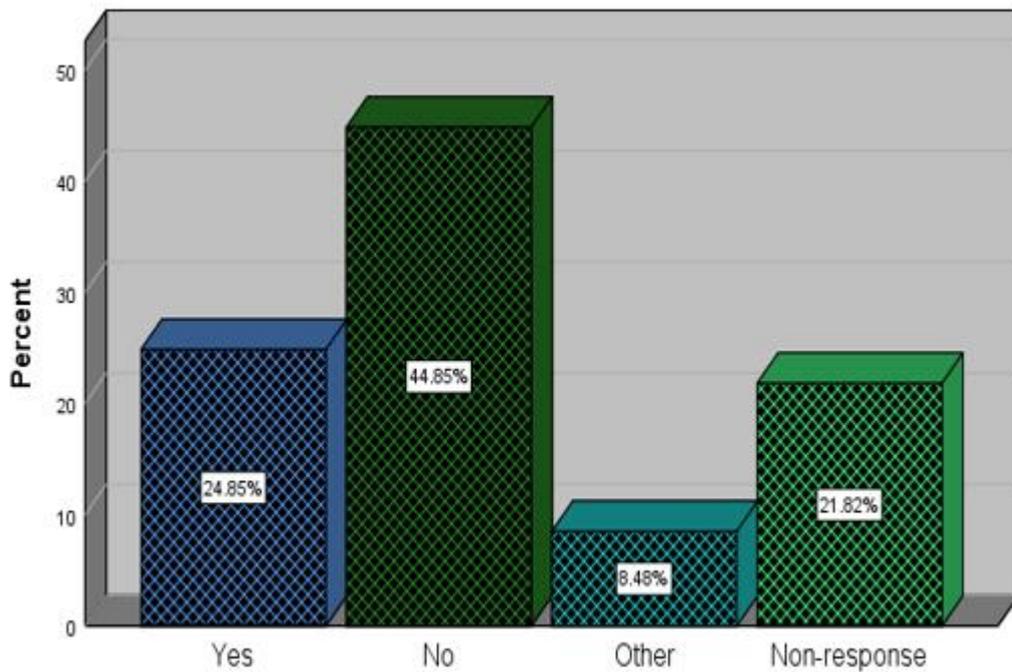


Figure 4.5: Prescribing e books as textbook (N=165)

Regarding this statement, a large number of respondents, 74 (44.85%), do not prescribe an e-book as a textbook, while 41 (24.85%) do prescribe an e-book as a textbook for students. Fourteen (8.48%) choose the option of other, meaning other methods of teaching, and 36 (21.82%) did not answer the question. Based on the findings in figure 4.3 the large majority of respondents use e-books, but this finding shows that they do not prescribe them as textbooks for their students. Even though some do, the majority prescribe other formats as textbooks.

Respondents were provided with the option of choosing “other” for this question. They listed the following:

- 6 (5%) indicated “not yet because of connectivity problems”.
- 1 (1%) indicated “not applicable”.
- 2 (2%) said they prescribe e-books for all courses.
- As recommended not prescribed because of difficulty of access.
- Scared of disappointment because of lack of access.
- Uncertainty about their accessibility on the Internet.
- 2 (2%) said "sometimes".
- Occasionally.

The above comments indicate that most of the respondents have some uncertainties about prescribing e-books as textbooks because of access problems. Some do prescribe them sometimes, whereas some do not yet prescribe them as textbooks.

#### 4.4.6 Adequacy of E-book collection

The respondents were asked to indicate the adequacy of the e-book collection available at Unisa Library for teaching and research, by choosing one or more options from the list as presented in Table 4.8 below.

Table 4.8: Adequacy of e book collection (N=165)

Valid	Research	88	53.3	53.3	53.3
	h				
	Teaching	47	28.5	28.5	81.8
	g				
	Both	30	18.2	18.2	100.0
	Total	165	100.0	100.0	

Of the 165 respondents, the majority, 88 respondents (53.3%), found e- books adequate for research, while 47 respondents (28.5%) found e-books adequate for teaching and “both” was indicated by 30 respondents (18.2%). This finding implies

that most of the respondents who use e-books for research find sufficient information for their research needs. It is clear that globally e-books have become an integral part of academic staff usage within the educational establishment, in spite of the view of some academics that they still face challenges in their use.

#### 4.4.7 How E-books are used

The respondents were requested to describe how they use e-books by choosing one or more options from the list as show below.

Table 4.9: How e books are used (N=165)

#### How E-books are used

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid For fact finding, I use E-book for searching only a specific piece of information	50	30.3	30.3	30.3
For relevant content only, I only read a few paragraphs, and page through here and there	57	34.5	34.5	64.8
I read the whole chapter at once	39	23.6	23.6	88.5
I read the whole E-book	19	11.5	11.5	100.0
Total	165	100.0	100.0	

The majority, 57 respondents (34.5%), indicated that they use e-books “for relevant content only, I only read a few paragraphs and page through here and there” while 50 of the respondents (30.3%) use the e-books “for fact finding, I use e-books for searching a specific piece of information”. Thirty-nine (23.6%) indicated that they

“read the whole chapter at once”, 19 (11.5%) indicated that they “read the whole e-book”. This is evidence that print books compared to e-books remain more popular than e-books, as users preferred print books for extended reading, while e-books are preferred for searches and information retrieval. This implies that e-books are complementary and not a replacement for print books.

#### 4.4.8 Devices used to access e-books

The respondents were asked to identify the devices they use to access e-books, by choosing one or more options from the list. The results are below.

Table 4.10: Devices used to access e books (N=165)

#### Devices used to access E-book

	Frequency	Valid Percent	Valid Percent	Cumulative Percent
Valid Home desktop computer	10	6.1	6.1	6.1
Laptop	100	60.6	60.6	66.7
Tablet	31	18.8	18.8	85.5
Cell phone	18	10.9	10.9	96.4
E-reader	6	3.6	3.6	100.0
Total	165	100.0	100.0	

The highest scoring device was laptop with 100 (60.6%), followed by tablets with 31 (18.8%), cell phone with 18 (10.9%), home desktop with 10 (6.1%) and e-reader, the lowest scoring device, with six (3.6%). Under “other devices”, Unisa desktop, work laptop and work computer were listed, whereas five (4%) indicated “not applicable”. This finding shows that the most popular devices used by respondents are laptop and home desktop, as it is expected that academics own these devices. The number of respondents who use tablet and cell phone is similar. The researcher found that respondents prefer using laptop and tablet, as well as cell phone, to access e-books.

#### 4.4.9 Importance attached to e-book features

##### (a) Connection on or off campus

Table 4.11: Connection on or off campus (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	112	67.9	67.9	67.9
	Not important	3	1.8	1.8	69.7
	Average important	10	6.1	6.1	75.8
	Not applicable	5	3.0	3.0	78.8
	Non-response	35	21.2	21.2	100.0
	Total	165	100.0	100.0	

The majority, 112 respondents (67.9%), believed that it is very important that the connection on the campus be on, while 10 (6.1%) said it is of average importance, three (1.8%) rated it as not important and five (3.0%) said “not applicable”. Thirty-five (21.2%) did not answer to this question. This shows that the majority of respondents find it important to have connection both on-campus and off-campus. This could be because respondents sometimes work from home. The researcher assumes that the ones who indicated that this feature is not applicable to them are the ones who indicated that they have never used and/or are not aware of e-books.

**(b) Day and night access of E-books**

Table 4.12: Day and night access of E-books (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	111	67.3	67.3	67.3
	Not important	4	2.4	2.4	69.7
	Average important	13	7.9	7.9	77.6
	Not applicable	3	1.8	1.8	79.4
	Non-response	34	20.6	20.6	100.0
	Total	165	100.0	100.0	

Respondents were asked to indicate whether “accessing e-books anytime of the day or night” was important to them. The results showed that the majority, 111 respondents (67.3%), felt it is very important to have access to e-books any time of the day or night, 13 (7.9%) indicated this feature to be of average importance, while four (2.4%) thought the feature is not important. Three of the respondents (1.8%) believed it is not applicable and 34 (20.6%) did not respond. E-books give users flexibility and greater access to more information. Unisa Library provides 24/7 access to e-books, although it is subject to downtimes. Respondents study and do their research after working hours, hence they find this feature very importance to them.

**(c) Relevance to curriculum e-book feature**

Respondents were asked to indicate the importance they attach to this feature.

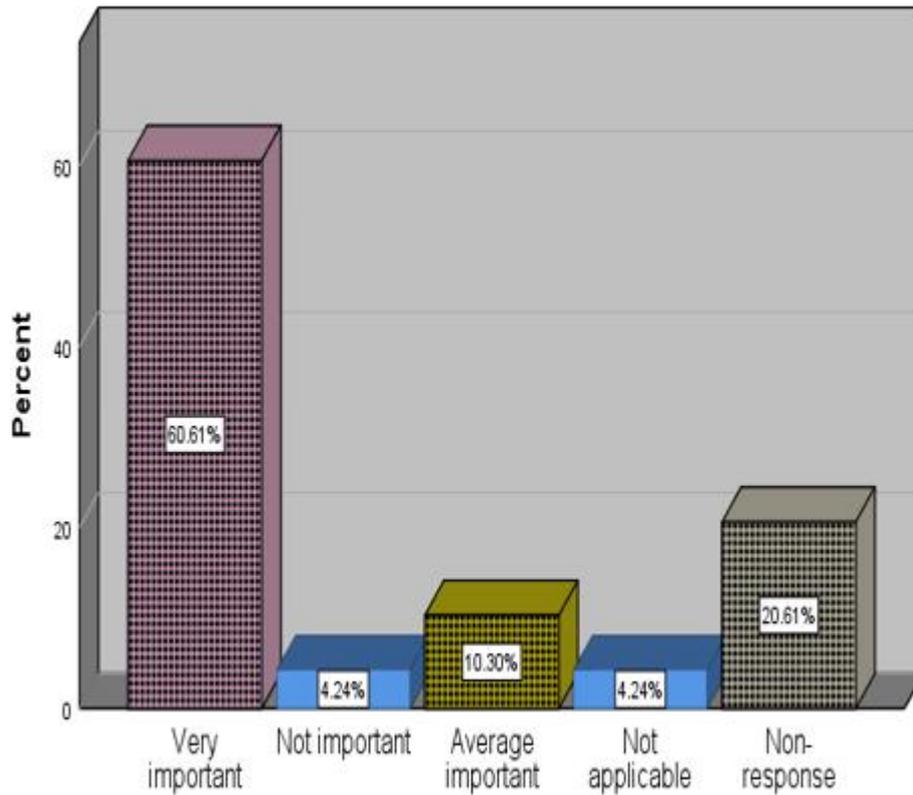


Figure 4.6: Relevance to curriculum (N=165)

When asked to indicate the level of importance they attach to relevance to the curriculum, 100 (60.61%) rated relevance to the curriculum as very important, 17 (10.30%) indicated that it is of average importance and seven (4.24%) believed that this feature is both not applicable and not important, while 34 (20.61%) did not respond. This finding implies that respondents who find it very important for e-books to be relevant to the curriculum are in the majority. This may also be an indication that the number of respondents who utilise e-books for teaching has the potential to grow bigger than what is presented in figure 4.12. The relevance to the curriculum is important so that respondents can find appropriate information for their learning and teaching.

**(d) Search the full text of e-book**

Table 4.13: Search the full text of E-books (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	102	61.8	61.8	61.8
	Not important	7	4.2	4.2	66.1
	Average important	15	9.1	9.1	75.2
	Not applicable	4	2.4	2.4	77.6
	Non-response	37	22.4	22.4	100.0
	Total	165	100.0	100.0	

In terms of the feature “search the full text of e-books”, the above table shows that the majority, 102 respondents (61.8%), indicated “very important”, seven (4.2%) indicated “not important”, 15 (9.1%) indicated “average importance” whereas four (2.4%) indicated “not applicable” and 37 (22.4%) did not indicate their preferences. This finding implies that the majority of users appreciate the flexibility of e-books as they are not limited to a specific reader, but can instead use a variety of devices. They therefore find it very important to be able to search the full text of e-book.

**(e) Browsing e book text**

Regarding the question of “browsing e-book text”, 115 respondents (69.7%) rated “browsing e-book text” as very important, fourteen (8.5%) as not important, 30 (18.2%) as of average importance and six (3.6%) respondents rated it as not applicable. This finding mean that the majority of respondents do browse for specific information within an e-book text.

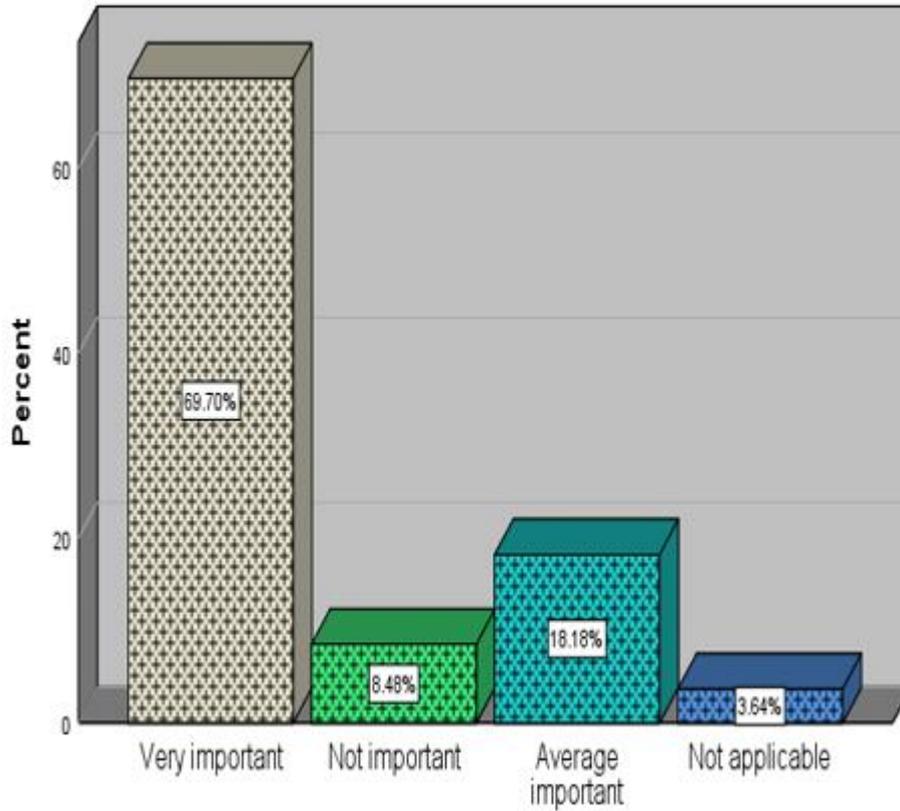


Figure 4.7: Browsing e-book text (N=165)

**(f) Ability to download the text**

Table 4.14: Ability to download the text (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Important	114	69.1	69.1	69.1
	Not important	4	2.4	2.4	71.5
	Average important	9	5.5	5.5	77.0
	Non-response	34	20.6	20.6	97.6
	Not applicable	4	2.4	2.4	100.0
	Total	165	100.0	100.0	

Respondents were also asked if “ability to download the text” was important. Out of 165 respondents, a large majority, 114 of the respondents (69.1%), regarded the level of importance they attach to “downloading the text” as important. Nine (5.5%) said it was of average importance and four (2.4%) selected both not important and not applicable to download e-books for reading. Thirty-four (20.6%) did not respond to this question. This finding indicates that a large number of respondents find it very important to be able to download the text as this provides academic staff with extensive access to appropriate information at any time.

**(g) Copy and paste from e-books**

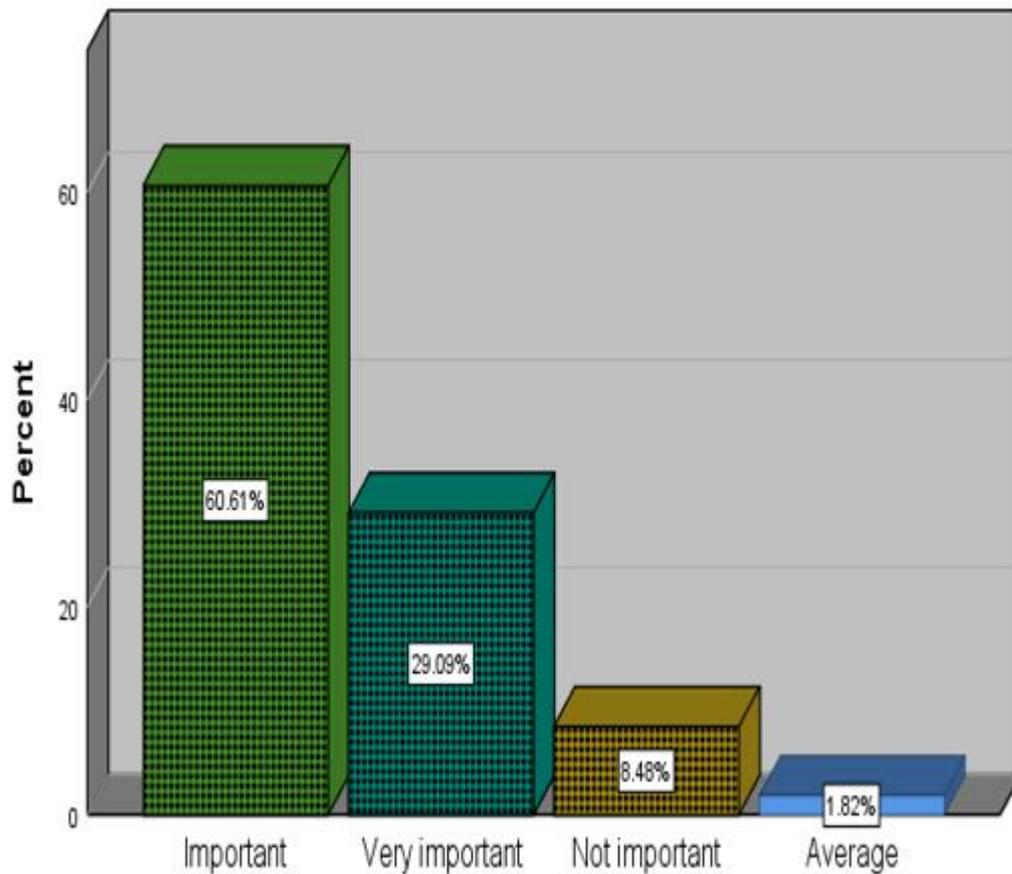


Figure 4.8: Copy and paste from e books (N=165)

The data revealed that 148 (89.7%) of the respondents indicated that “copy and paste text from e-books” was important and very important. Fourteen (8.5%) of the respondents said “not important” and 3 (1.8%) indicated “average importance”. This

finding implies that most of the respondents find it very necessary to copy and paste information from e-books for quick future reference.

**(h) Downloading e-book onto another device**

Table 4.15: Downloading e-book onto another device (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Important	87	52.7	52.7	52.7
	Not important	16	9.7	9.7	62.4
	Average important	21	12.7	12.7	75.2
	Not applicable	8	4.8	4.8	80.0
	Non-response	33	20.0	20.0	100.0
	Total	165	100.0	100.0	

In terms of “downloading e-books onto another device”, the majority, 87 respondents (52.7%), regard it as important, 16 (9.7%) regard it as not important, 21 (12.7%) consider it of average importance and eight (4.8%) think that it not applicable. Thirty-three (20.0%) respondents did not answer this question. This implies that most of the respondents see it as essential to download e-books onto another device, e.g. cell-phones, tablets and/or e-book readers, so that they can read them anywhere and at a convenient time.

**(i) Content presentation**

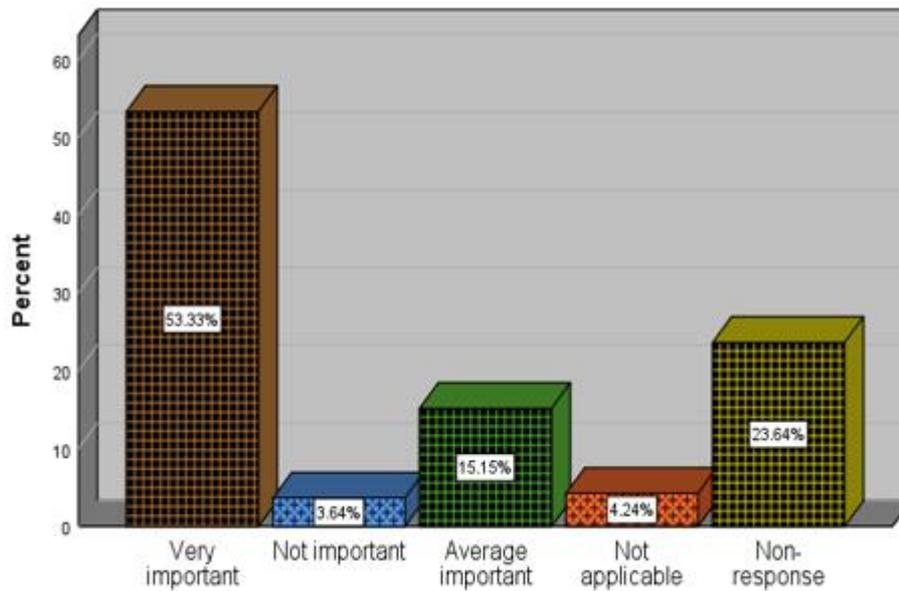


Figure 4.9: Content presentation (N=165)

Regarding the level of importance that respondents attached to this e-book feature, a large number, 88 respondents (53.33%), selected “very important”, six (3.64%) said “not important”, twenty-five (15.15%) rated it as “average importance” and seven (4.24%) indicated “not applicable”. Thirty-nine (23.64%) did not respond to the question. This finding implies that the majority of respondents find it very important that content is presented well in e-books so that it is easy to read.

**(j) Reading the e-books in the PDFs format**

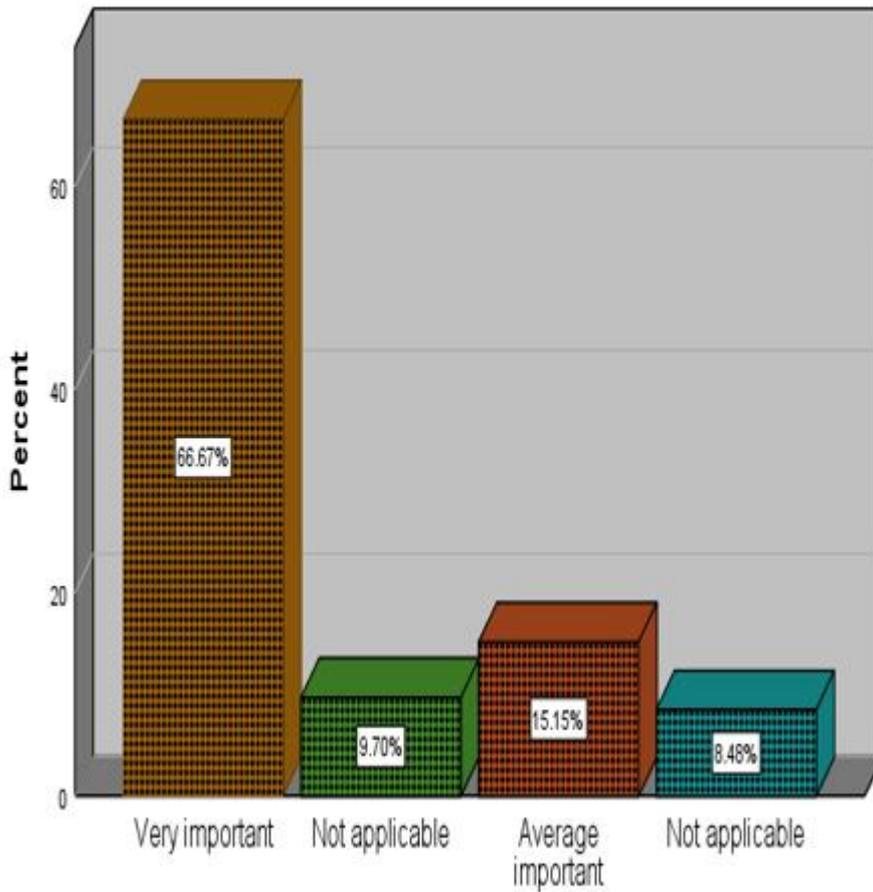


Figure 4.10: Reading the e-books in the PDFs format (N=165)

The respondents were also required to indicate if reading e-books in pdf format is important. The majority, 110 respondents (66.6%), regard this feature as “very important”, sixteen (9.7%) as “not important”, 25 (15.2%) as “average importance”, while 14 (8.5%) respondents regard this feature as “not applicable”. This finding suggests that the majority of respondents find it very important to read e-books in pdf format because it can be opened on any device.

**(k) Reading e-book as webpages was important**

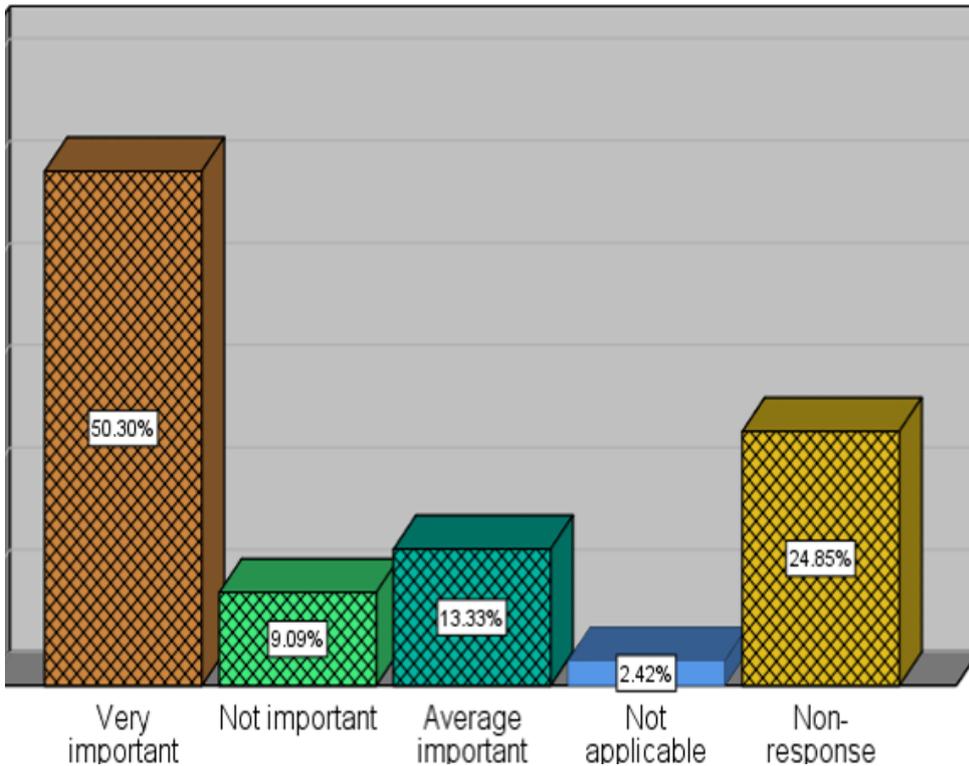


Figure 4. 11: Reading e-book as webpages (N=165)

The survey indicated that 83 of the respondents (50.3%) consider reading e-books as webpages to be very important, while 22 of the respondents (13.3%) indicated “average importance”. Four (2.4%) said “not applicable” and 15 (9.1%) indicated “not important”. These findings reveal that the majority of respondents are of the view that reading e-books as webpages is very important. This could be because in the question about the device used for e-books (4.4.8 above), the majority of them indicated that they use laptops, followed by tablets and cellphones, to gain access to e-books. Hence, they only need to connect to the Internet to read e-books using the Internet browser.

**(I) Reading e-books in any / all available formats**

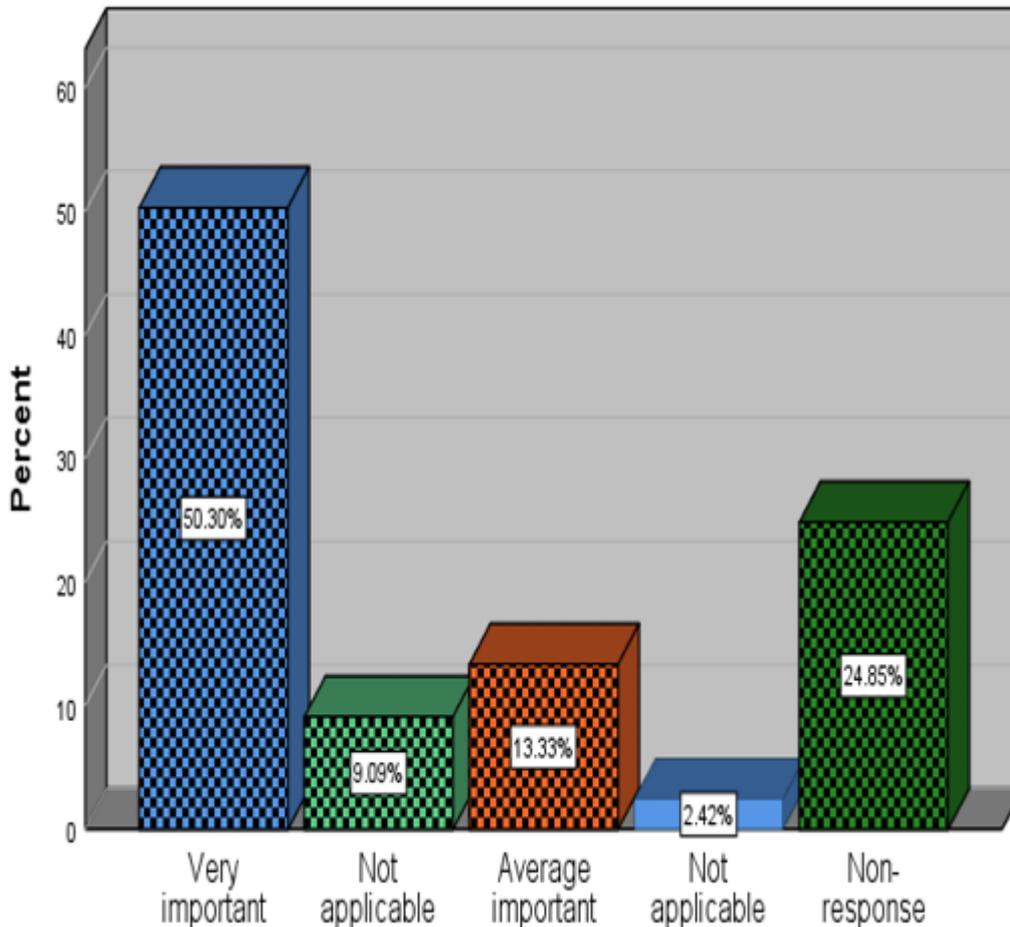


Figure 4.12: Reading e-books in any/all available formats (N=165)

Respondents were asked if they consider reading e-books in any/all available formats to be important. The majority, 83 of the respondents (50.3%), indicated “very important” as the level of importance they attach to this e-book feature, 22 (13.3%) regarded this feature as of average importance, while 15 (9.1%) found it not important, four (2.4%) regarded it as not applicable and 41 (24.8%) did not respond to this question. This finding indicates that the majority of respondents find it very important to be able to read e-books in any/all available formats. This is because of eye discomfort for reading online. Other limitations include navigation speed and failure to gain access when they are away from the campus environment.

**(m) Easy use when reading multiple copies of e-books at the same time**

Table 4.16: Ease of use when reading multiple copies of E-books at the same time (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	91	55.2	55.2	55.2
	Not important	9	5.5	5.5	60.6
	Average important	21	12.7	12.7	73.3
	Not applicable	7	4.2	4.2	77.6
	Non-response	37	22.4	22.4	100.0
	Total	165	100.0	100.0	

In this question, respondents were asked to indicate the importance of “ease of use when reading multiple copies at the same time”. The results of the above frequency table indicate that 91 of the respondents (55.2%) believed that this feature is very important, 21 (12.7%) said “average importance” and 9 (5.5%) thought that it was not important. Seven (4.2%) were of the view that it is not applicable, while 37 (22.4%) did not respond to this question. Opening more than one print book helps the reader to compare information; similarly, this finding reveals that the majority of respondents find it very important to be able to do the same with e-books.

**(n) Making notes in e-books**

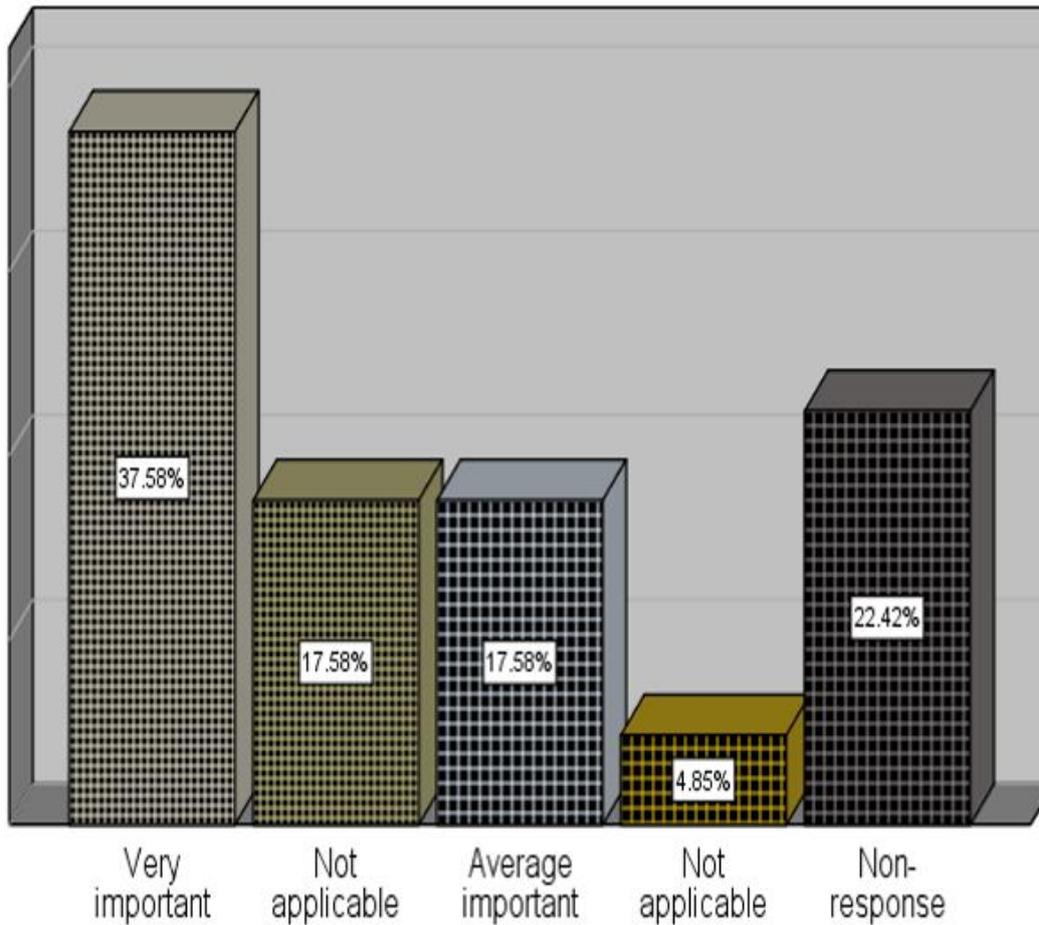


Figure 4.13: Making notes in e-books (N: 165)

Regarding “making notes in e-books”, this feature was rated “very important” by 62 respondents (37.6%), “not important” by 29 respondents (17.6%), “average importance” by 29 respondents (17.6%) and “not applicable” by eight respondents (4.8%), while 37 (22.4%) did not respond to this question. The finding implies that the majority of respondents find it very important to interact with an e-book while reading it; simply reading it is not enough. Making notes enables the reader to write down important points.

**(o) Highlighting**

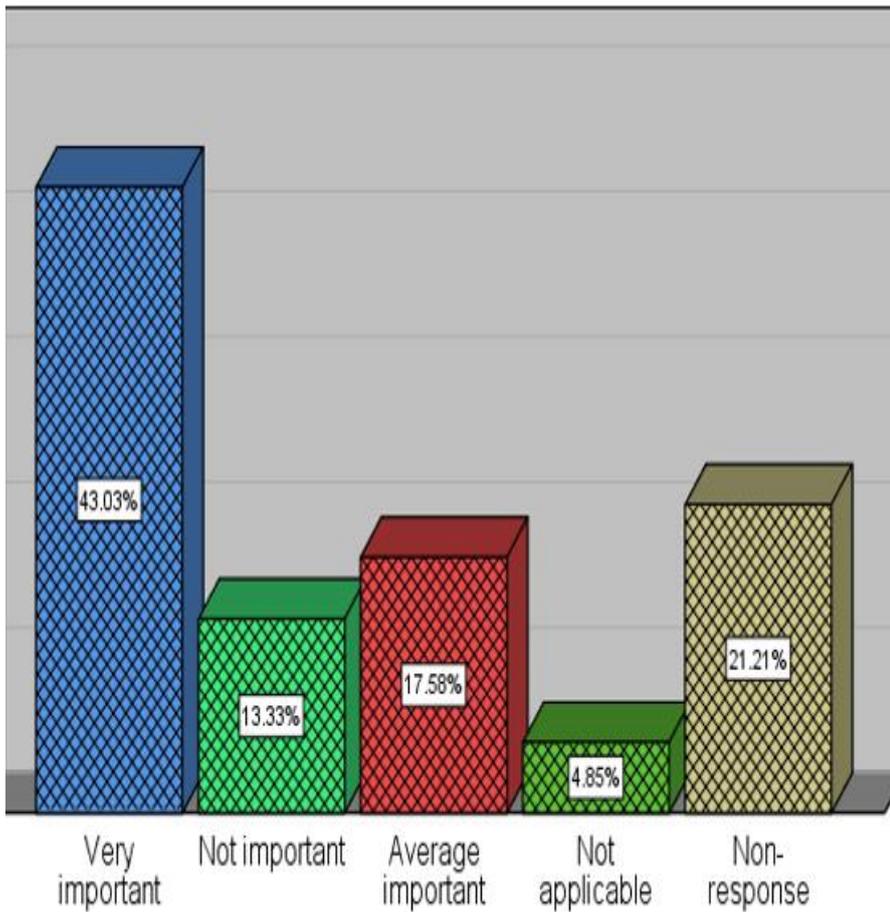


Figure 4.14: Highlighting (N: 165)

In terms of “highlighting in e-books”, out of 165 respondents, “very important” got 43.03% (71 respondents), “not important” 13.33% (22 respondents), “average importance” 17.58% (29 respondents) and “not applicable” 4.85% (8 respondents), while 35 respondents (21.21%) did not respond to this question. This finding indicates that the majority of respondents find it very important to do highlighting in e-books. It could be because highlighting helps to draw attention to key points and helps for future reference.

**(p) Bookmarking**

Table 4. 17: Book marking in e-books (N=165)

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Very important	79	47.9	47.9	47.9
	Not important	19	11.5	11.5	59.4
	Average important	27	16.4	16.4	75.8
	Not applicable	8	4.8	4.8	80.6
	Non-response	32	19.4	19.4	100.0
	Total	165	100.0	100.0	

This question concerned the level of attachment that respondents attach to “bookmarking in e-books”. The majority, 79 respondents (47.9%), regarded this feature as very important, 19 (11.5%) regarded bookmarking in an e-book as not important, 27 (16.4%) regarded it as of average importance, while eight (4.8%) regarded this feature as not applicable. Thirty-two respondents (19.4%) did not respond to this question. Bookmarking also helps to save information for future use and to trace information.

**(q) Printing chapters from e-books**

Regarding the question whether printing out chapters from e-books was important, the majority, 98 respondents (59.4%), rated it as very important, 26 (15.8%) considered it not important, 27 (16.4%) rated it as of average importance and 14 (8.5%) said it was not applicable. This finding shows that the majority of respondents found it very important to be able to print from e-books as they are familiar users. It could be because respondents still want to extend their readings.

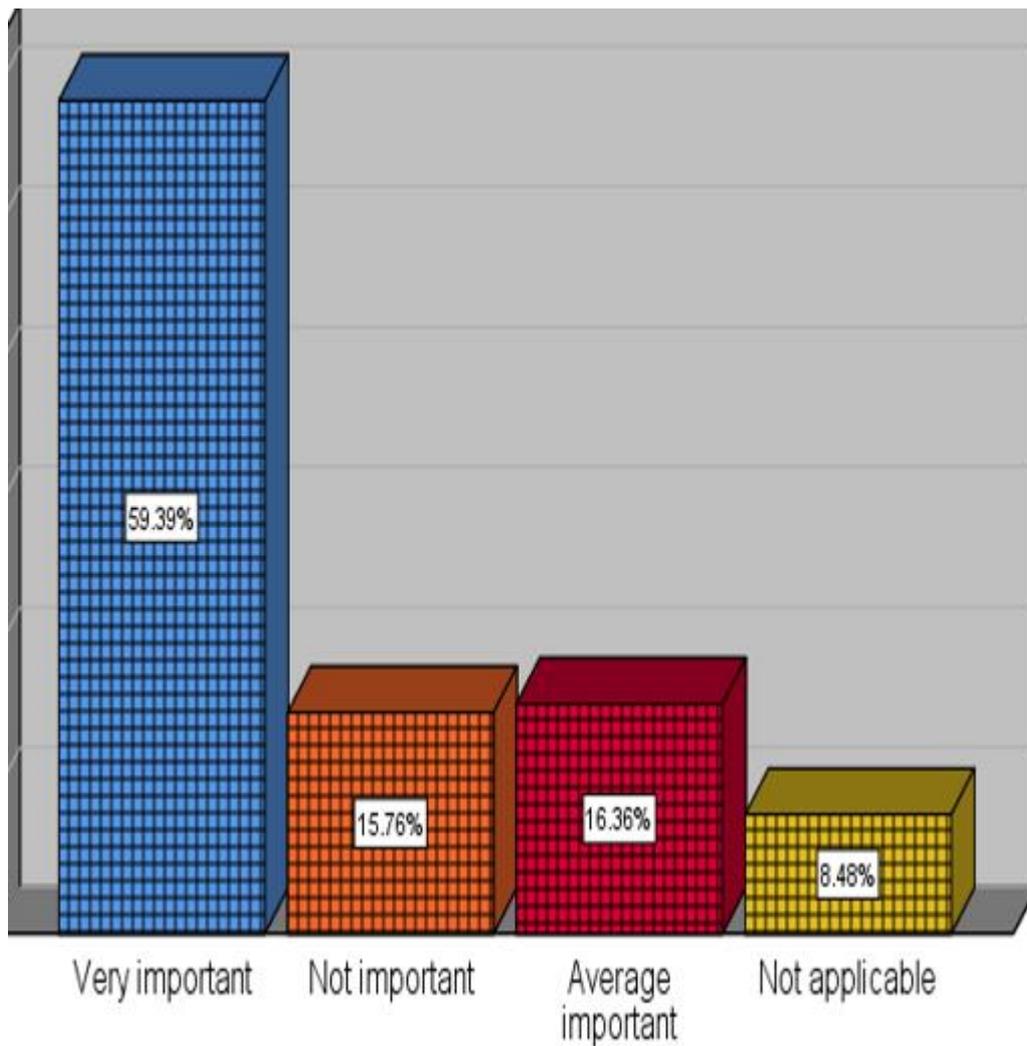


Figure 4.15: Printing chapters from e-books (N=165)

**(r) Portability**

Table 4.18: Portability (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very important	105	63.6	63.6	63.6
	Important	5	3.0	3.0	66.7
	Average Important	16	9.7	9.7	76.4
	Not applicable	3	1.8	1.8	78.2
	Non-response	36	21.8	21.8	100.0
	Total	165	100.0	100.0	

Respondents were asked to indicate if “portability” was important. They could choose one of the following options: very important, important, not important, average importance or not applicable.

The survey found that 105 (63.6%) responded “very important” regarding the level of significance academics staff attach to “portability”, five (3.0%) said “important”, sixteen (9.7%) said “average importance” and three indicated “not applicable”. This finding implies that the majority of respondents find e-books convenient to use because they can be read from their portable devices. This makes an e-book a portable book that can easily be carried anywhere.

#### 4.5 Part IV Reasons for low usage of e-books

##### (a) Lack of awareness

Table 4. 19: Lack of awareness (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	4.8	4.8	4.8
	agree	13	7.9	7.9	12.7
	Neither	20	12.1	12.1	24.8
	Disagree	24	14.5	14.5	39.4
	Strongly disagree	66	40.0	40.0	79.4
	Non-response	34	20.6	20.6	100.0
	Total	165	100.0	100.0	

The above table indicates that 66 of the respondents (40.0%) strongly disagreed with the statement about lack of awareness since they were aware of the availability of e-books at Unisa library, 24 (14.5%) disagreed, 20 (12.1%) neither agreed nor disagreed, 8 (4.8%) strongly agreed and 13 (7.9%) agreed. Thirty-four respondents (20.6%) did not respond to this question. The findings show that it is only a few respondents who regard lack of awareness about e-books as their reason for not

using e-books, while this was not the case with the majority of the respondents, which implies that although they are aware of the availability of e-books at Unisa library they still had other reasons for not using e-books.

**(b) I do not know where to find e-books**

Table 4. 20: I do not know where to find e-books (N=165)

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	2.4	2.4	2.4
	Agree	10	6.1	6.1	8.5
	Neither	11	6.7	6.7	15.2
	Disagree	41	24.8	24.8	40.0
	Strongly disagree	74	44.8	44.8	84.8
	Non-response	25	15.2	15.2	100.0
	Total	165	100.0	100.0	

The findings indicate that 73 of the respondents (44.8%) strongly disagreed that they did not know where to find e-books, 41 (24.8%) disagreed and eleven (6.7%) neither agreed nor disagreed with this statement. Ten (6.1) agreed, four (2.4%) strongly believed that they did not know about e-books and 25 (15.2%) did not respond to the question. This indicates that respondents are using the e-resources databases that are available in the library catalogue and on other platforms.

**(c) Simply prefer print**

Table 4.21: Simply prefer print (N=165)

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	27	16.4	16.4	16.4
	Agree	25	15.2	15.2	31.5
	Neither	19	11.5	11.5	43.0

Disagree	23	13.9	13.9	57.0
Strongly disagree	33	20.0	20.0	77.0
Non-response	38	23.0	23.0	100.0
Total	165	100.0	100.0	

For the variable “simply prefer print”, the majority of the respondents 33 (20.0%) strongly disagreed, 23 (13.9%) disagreed, 27 (16.4%) strongly agreed, 25 (15.2%) agreed, while 19 (11.5%) neither agreed nor disagreed. Thirty-eight (23.0%) academic staff members did not respond to the question. This finding indicates that the majority of the respondents do not regard “simply prefer print” as one of their reasons for not using e-books. It could be that there are other reasons such as experience with e-books or other challenges when using them.

**(d) I am used to reading print I do not want to change**

Table 4.22: Comfort zone syndrome (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	7.9	7.9	7.9
	Agree	26	15.8	15.8	23.6
	Neither	20	12.1	12.1	35.8
	Disagree	38	23.0	23.0	58.8
	Strongly disagree	43	26.1	26.1	84.8
	Non-response	25	15.2	15.2	100.0
	Total	165	100.0	100.0	

Regarding the variable “I am used to reading print I do not want to change”, respondents’ attitude to this variable showed that 13 (7.9%) strongly agreed that they are used to reading print so they do not want to change, 26 (15.8%) agreed, while 20 (12.1%) neither agreed nor disagreed. A large number, 43 respondents (26.1%),

strongly disagreed, 38 (23.0%) disagreed with the statement as they are ready for change and 25 (15.2%) did not respond to this question.

**(e) Reading from the screen is eye straining**

Table 4. 23: Reading from the screen is eye straining (N=165)

		Freq uenc y	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	33	20.0	20.0	20.0
	Agree	43	26.1	26.1	46.1
	Neither	26	15.8	15.8	61.8
	Disagree	20	12.1	12.1	73.9
	Strongly disagree	13	7.9	7.9	81.8
	Non-response	30	18.2	18.2	100.0
	Total	165	100.0	100.0	

With regards to “reading from the screen is eye straining”, the results show that 33 (20%) strongly agreed that reading from the screen is eye straining and 43 (26.1%) agreed while 26 (15.8%) neither agreed nor disagreed. Thirteen (7.9%) strongly disagreed and 20 (12.1%) disagreed and 30 (18.2%) did not respond to the question. The findings reveal that the majority of respondents agree that reading from the screen is eye straining and therefore they are resisting embracing the e-book format.

**(f) Interface of e-books differs on different devices**

Table 4.24: Interface of e-books differs on different devices (N=165)

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	6.7	6.7	6.7
	Agree	64	38.8	38.8	45.5
	Neither	34	20.6	20.6	66.1
	Disagree	13	7.9	7.9	73.9

Strongly disagree	16	9.7	9.7	83.6
Non-response	27	16.4	16.4	100.0
Total	165	100.0	100.0	

The respondents were asked to indicate whether the variable “interface of e-books differs on different devices” was one of their reasons for not using e-book. The results show that 64 (38.8%) agreed that the interface differs on different devices and 11 (6.7%) strongly agreed, while 34 (20.6%) neither agreed nor disagreed. Thirteen (7.9%) disagreed and 16 (9.7%) strongly disagreed with the assertion. Twenty-seven (16.4) did not respond to this question. The finding implies that the majority of respondents agreed that the interface does not appear the same way when they use other devices. It could be the interface is not user-friendly.

**(g) Lack of Internet connectivity when doing research in remote areas**

Table 4.25: Lack of internet connectivity when doing research in remote areas (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	31	18.8	18.8	18.8
	Agree	45	27.3	27.3	46.1
	Neither	22	13.3	13.3	59.4
	Disagree	18	10.9	10.9	70.3
	Strongly disagree	20	12.1	12.1	82.4
	Non-response	29	17.6	17.6	100.0
	Total	165	100.0	100.0	

This variable looked at “lack of Internet connectivity when doing research in remote areas” as one of the factors hindering respondents from using e-books. Of the respondents, 45 (27.3%) agreed and 31 (18.8%) strongly agreed that lack of Internet connectivity when doing research in remote areas is a reason for not using e-books. Twenty-two (13.3) neither agreed nor disagreed. Eighteen (10.9%) disagreed and 20

(12.1%) strongly disagreed with the statement. Twenty-nine (17.6%) did not answer question. The results could indicate that the lack of Internet connectivity was one of the reasons for not using e-books. This makes them prefer using print books as their favourite format.

**(h) Downloading is slow**

Table 4.26: Downloading is slow (N=165)

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	18	10.9	10.9	10.9
	Agree	54	32.7	32.7	43.6
	Neither	28	17.0	17.0	60.6
	Disagree	22	13.3	13.3	73.9
	Strongly disagree	16	9.7	9.7	83.6
	Non-response	27	16.4	16.4	100.0
	Total	165	100.0	100.0	

Regarding the variable “downloading is slow”, the total number of respondents who agreed that downloading is slow was 54 (32.7%), while 18 (10.9%) strongly agreed and 28 (17.0%) neither agreed nor disagreed. Twenty-two (13.3%) disagreed and 16 (9.7%) strongly disagreed, but 27 (16.4%) respondents did not respond to this question. This finding indicates that the majority of respondents agree that downloading an e-book is slow. It could be they prefer reading e-books offline because they experienced problems with network speed when downloading them.

**(i) Irrelevance to the curriculum**

Table 4. 27: Irrelevance to the curriculum (N=165)

		Frequenc y	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	6.1	6.1	6.1
	Agree	16	9.7	9.7	15.8

Neither	54	32.7	32.7	48.5
Disagree	31	18.8	18.8	67.3
Strongly disagree	27	16.4	16.4	83.6
Non-response	27	16.4	16.4	100.0
Total	165	100.0	100.0	

The respondents were asked to indicate whether the variable “irrelevance to the curriculum” was one of the reasons for not using e-books. Ten (6.1%) strongly agreed and 16 (9.7%) agreed that irrelevance to the curriculum was their reasons for not using e-books, although 54 (32.7%) neither agreed nor disagreed. It is noted that there were 31 (18.8%) respondents who disagreed and 27 (16.4%) who strongly disagreed, whilst 27 (16.4%) did not respond to this question. The findings reveal that the majority of respondents do not agree that irrelevance to the curriculum is their reason for not using e-books. It could be that they find e-books relevant to the curriculum, hence they valued this feature as “very important” in 4.4.9 c.

**(j) Limited number of titles available**

Table 4.28: Limited number of titles available (N=165)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Strongly agree	17	10.3	10.3	10.3
Agree	43	26.1	26.1	36.4
Neither	32	19.4	19.4	55.8
Disagree	24	14.5	14.5	70.3
Strongly disagree	15	9.1	9.1	79.4
Non-response	34	20.6	20.6	100.0
Total	165	100.0	100.0	

Regarding the variable “limited number of titles available” as one of the reasons for not using e-books, 17 (10.3%) of the respondents strongly agreed and 43 (26.1%) agreed that there are a limited number of titles available despite the fact that 32

(19.4%) neither agreed nor disagreed. Twenty-four (14.5%) disagreed and 15 (9.1%) strongly disagreed with this statement. However, 34 (20.6%) did not respond to the question. This finding is an indication that the majority of respondents find the number of available e-book titles insufficient for their information needs.

**(k) Access restrictions on number of simultaneous users**

Table 4.29: Access restrictions on number of users (N=165)

		Freque ncy	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	20	12.1	12.1	12.1
	Agree	58	35.2	35.2	47.3
	Neither	31	18.8	18.8	66.1
	Disagree	15	9.1	9.1	75.2
	Strongly disagree	12	7.3	7.3	82.4
	Non-response	29	17.6	17.6	100.0
	Total	165	100.0	100.0	

Concerning the variable “access restrictions on number of users”, 58 (35.2%) of the respondents agreed and 20 (12.1%) strongly agreed that access restrictions on the number of simultaneous users are the reasons for not using e-books, although 31 (18.8%) neither agreed nor disagreed. Fifteen (9.1%) disagreed and 12 (7.3%) strongly disagreed with this statement. Twenty-nine (17.6%) respondents did not respond to this statement. This finding shows that the majority of the respondents want access to e-books to be expanded to more than one user. The number of simultaneous users is dependent on the purchase model chosen for that particular e-book title or e-book collection. However, Unisa Library makes an effort to select a multiple access model.

**(l) Hard to browse**

Table 4. 30: Hard to browse (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	6.1	6.1	6.1
	Agree	38	23.0	23.0	29.1
	Neither	32	19.4	19.4	48.5
	Disagree	26	15.8	15.8	64.2
	Strongly disagree	18	10.9	10.9	75.2
	Non-response	41	24.8	24.8	100.0
	Total	165	100.0	100.0	

The researcher sought to establish if respondents find e-books hard to browse. The results show that 38 (23%) of the respondents agreed and 10 (6.1%) strongly agreed that e-books are hard to browse, whereas 32 (19.4%) of the respondents neither agreed nor disagreed. Eighteen (10.9%) strongly disagreed and 26 (15.8%) disagreed. Forty-one respondents (24.8%) did not respond to this question. This finding reveals that the majority of respondents' experience problems when looking for something to read in e-book format. It could be that respondents want to browse by subject, as happens with print books. It is good to note that the e-resources in the Unisa library catalogue are arranged alphabetically according to databases and subjects.

**(m) Inability to open multiple copies at once**

Table 4.31: Inability to open multiple copies at once (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	15	9.1	9.1	9.1
	Agree	48	29.1	29.1	38.2
	Neither	30	18.2	18.2	56.4

Disagree	24	14.5	14.5	70.9
Strongly disagree	9	5.5	5.5	76.4
Non-response	39	23.6	23.6	100.0
Total	165	100.0	100.0	

The respondents were asked to indicate whether “inability to open multiple copies at once” was one of their reasons for not using e-books. The results show that 48 of the respondents (29.1%) agreed and 15 (9.1%) strongly agreed that inability to open multiple copies at once was their reason for not using e-books, while 30 of the respondents (18.2%) neither agreed nor disagreed. Twenty-four (14.5%) disagreed and 9 (5.5%) strongly disagreed. Thirty-nine respondents (23.6%) did not respond to this question. The results indicate that most respondents regard “inability to open multiple copies at once” as their reason for not using e-books. This may be why print books remain their first preference as indicated in (4.4.2)

**(n) E-books reduce control over plagiarism and increase copyright concerns**

Table 4.32: E-books reduce control over plagiarism and increase copyright concerns (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	21	12.7	12.7	12.7
	Agree	31	18.8	18.8	31.5
	Neither	29	17.6	17.6	49.1
	Disagree	26	15.8	15.8	64.8
	Strongly disagree	17	10.3	10.3	75.2
	Non-response	41	24.8	24.8	100.0
	Total	165	100.0	100.0	

Regarding the variable “e-books reduce control over plagiarism and increase copyright concerns”, 31 respondents (18.8%) agreed and 21 (12.7%) strongly agreed

that e-books reduce control over plagiarism and increase copyright concerns, while 29 (17.6%) neither agreed nor disagreed. Twenty-six (15.8%) disagreed and 17 (10.3%) strongly disagreed. Forty-one (24.8%) respondents did not answer this question. This finding implies that the majority of respondents are concerned that e-books reduce control over plagiarism and copyright and they regard this as their reason for not using e-books. According to the findings, it is a smaller number of respondents who disagreed with this statement. It could be that they are informed about how plagiarism and copyright are dealt with in e-books.

**(o) Inability to make a notes**

Table 4.33: Inability to make notes (N=165)

		Frequ ency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	7.9	7.9	7.9
	Agree	38	23.0	23.0	30.9
	Neither	37	22.4	22.4	53.3
	Disagree	27	16.4	16.4	69.7
	Strongly disagree	13	7.9	7.9	77.6
	Non-response	37	22.4	22.4	100.0
	Total	165	100.0	100.0	

The next variable was “inability to make notes”. Of the respondents, 38 (23.0%) agreed that the inability to make notes is their reason for not using e-books and 13 (7.9%) strongly agreed. Twenty-seven (16.4%) disagreed and 13 (7.9%) strongly disagreed. Twenty-seven (22.4%) neither agreed nor disagreed and 37 (22.4%) did not answer this question. These findings suggest that the majority of respondents like to interact with the e-book.

**(p) Inability to flag pages for future reference**

Table 4.34: Inability to flag pages for future reference (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	14	8.5	8.5	8.5
	Agree	50	30.3	30.3	38.8
	Neither	29	17.6	17.6	56.4
	Disagree	24	14.5	14.5	70.9
	Strongly disagree	12	7.3	7.3	78.2
	Non-response	36	21.8	21.8	100.0
	Total	165	100.0	100.0	

The respondents were asked to indicate whether the variable “inability to flag pages for future reference” was their reason for not using e-books. A large number, 50 of the respondents (30.3%), agreed and 14 (8.5%) strongly agreed that the inability to flag pages for future reference was their reason for not using e-books. Flagging pages for future reference helps one know where to find particular information in future. Twenty-nine (17.6%) neither agreed nor disagreed, whereas 24 (14.5%) disagreed and 12 (7.3%) strongly disagreed with the statement. Thirty-six (21.8%) respondents did not respond to this question. The finding reveals that the inability to flag pages in e-books discouraged the majority of respondents from using them.

**(q) E-books can be easily deleted accidentally**

Table 4.35: E-books can be easily deleted accidentally (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	19	11.5	11.5	11.5
	Agree	30	18.2	18.2	29.7
	Neither	38	23.0	23.0	52.7
	Disagree	28	17.0	17.0	69.7
	Strongly disagree	16	9.7	9.7	79.4
	Non-response	34	20.6	20.6	100.0

Total	165	100.0	100.0	
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The next variable stated that “e-books can be deleted accidentally. Of the respondents, 30 (18.2%) agreed that e-books can be deleted accidentally, 19 (11.5%) strongly agreed, while 38 (23.0%) neither agreed nor disagreed. Twenty-eight (17.0%) disagreed and 16 (9.7%) strongly disagreed. Thirty-four (20.6%) did not respond to this question. The results suggest that most of the respondents do not regard the e-book as a reliable source because they cannot trust that a particular title will not vanish after reading it.

**(r) Restrictions on number of pages to be printed**

Table 4.36: Restrictions on number of pages to be printed (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	36	21.8	21.8	21.8
	Agree	37	22.4	22.4	44.2
	Neither	26	15.8	15.8	60.0
	Disagree	17	10.3	10.3	70.3
	Strongly disagree	13	7.9	7.9	78.2
	Non-response	36	21.8	21.8	100.0
	Total	165	100.0	100.0	

In terms of “restrictions on number of pages to be printed”, 37 respondents (22.4%) agreed and 36 (21.8%) strongly agreed that restrictions on the number of pages to be printed was one of their reasons for not using e-books, while 26 (15.8%) neither agreed nor disagreed. Seventeen (10.3%) disagreed and 13 (7.9%) strongly disagreed. Thirty-six (21.8%) did not answer this question. The findings are an indication that a majority of respondents do not like reading online. They prefer to make printouts of an e-book. E-books only allow them to print up to a certain limit. For this reason, they are unable to read the rest of the information they wish to read.

#### 4.6 Part V: Frequency with which e-books are used

This section presents the results on the frequency with which e-books are used. This section is divided in three sections:

##### The frequency with which e-books are used.

The researcher wants to investigate the frequency with which respondents use e-books. The respondents had to choose one of the following options: very often, often, occasionally, rarely or never.

Table 4.37: The frequency with which e-books are used (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	17	10.3	10.3	10.3
	Often	37	22.4	22.4	32.7
	Occasionally	57	34.5	34.5	67.3
	Rarely	17	10.3	10.3	77.6
	Never	4	2.4	2.4	80.0
	Non-response	33	20.0	20.0	100.0
	Total	165	100.0	100.0	

The findings indicated that 57 respondents (34.5%) use e-books occasionally while 37 (22.4%) use e-books often, 17 (10.3%) use e-books very often and 17 (10.3%) use them rarely. Four (2.4%) never use e-books and 33 (20.0%) did not respond the question. The results show that a lower proportion of respondents use e-book very often while the majority of them use e-books occasionally. It is also noted that it is only a few respondents who never use e-books. It could be that they use other formats.

##### 4.6.1 Frequency of using e-books for preparing course readings

The researcher wanted to investigate the purpose for which the academic staff use e-books and respondents were asked to choose one of the following options: very often,

often, occasionally, rarely or never. Three purposes were retained: for course reading, for studying and for all purpose. The detailed analysis is presented as shown below.

Table 4.38: Frequency of using e-books for preparing course readings (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	6	3.6	3.6	3.6
	Often	32	19.4	19.4	23.0
	Occasionally	53	32.1	32.1	55.2
	Rarely	15	9.1	9.1	64.2
	Never	13	7.9	7.9	72.1
	Non-response	46	27.9	27.9	100.0
	Total	165	100.0	100.0	

The majority, 53 respondents (32.1%), occasionally use e-books for preparing course readings, 32 (19.4%) indicated “often”, 15 (9.1%) indicated “rarely” and 13 (7.9%) indicated “never”. Only six (3.6%) respondents indicated that they use e-books for course preparation very often. There were 46 (27.9%) respondents who did not respond to this question. This finding reveals that the majority of respondents occasionally use e-books for preparing course readings.

#### 4.6.2 Frequency of using e-books for studying

Table 4.39: Frequency of using e-books for studying

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	21	12.7	12.7	12.7
	Often	48	29.1	29.1	41.8
	Occasionally	41	24.8	24.8	66.7
	Rarely	7	4.2	4.2	70.9

Never	6	3.6	3.6	74.5
Non-response	42	25.5	25.5	100.0
Total	165	100.0	100.0	

Regarding the purpose of studying, 48 respondents (29.1%) indicated that they use e-books for studying often, followed by 41 (24.8%) respondents who use e-books for studying occasionally, while 21 (12.7%) respondents indicated “very often”, seven (4.2%) respondents indicated “rarely” and six (3.6 %) indicated “never”. Forty-two (25.5%) respondents did not respond to this question. This finding indicates that the majority of respondents use e-books for studying often while respondents who never use e-books for studying are the lowest percentage.

#### 4.6.3 Frequency of using e-books for teaching

Respondents were asked to choose one option from the following: often, occasionally, rarely, very often or never.

Table 4.40: Frequency of using e-books for teaching (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	12	7.3	7.3	7.3
	Often	44	26.7	26.7	33.9
	Occasionally	39	23.6	23.6	57.6
	Rarely	17	10.3	10.3	67.9
	Never	12	7.3	7.3	75.2
	Non-response	41	24.8	24.8	100.0
	Total	165	100.0	100.0	

Of the respondents, 44 (26.7%) use e-books for teaching often, followed by 39 (23.6%) who use e-books for teaching occasionally, while 17 (10.3%) indicated “rarely”, 12 (7.30%) indicated “very often” and 12 (7.3%) indicated “never”. Forty-one respondents (24.8%) did not respond to this question. This finding indicates that most

of the respondents use e-books for teaching often as this makes teaching have a more significant effect on learners.

#### 4.6.4 Frequency of using e-books for all purposes

Table 4.41: Frequency of using e-books for all purposes (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	17	10.3	10.3	10.3
	Often	40	24.2	24.2	34.5
	Occasionally	27	16.4	16.4	50.9
	Rarely	11	6.7	6.7	57.6
	Never	10	6.1	6.1	63.6
	Non-response	60	36.4	36.4	100.0
	Total	165	100.0	100.0	

The respondents were asked to indicate the frequency with which they use e-books for all purposes. Forty respondents (24.2%) indicated that they use e-books for all purposes often, 27 (16.4%) indicated “occasionally”, 17 (10.3%) indicated “very often”, 11 (6.7%) indicated “rarely”, whereas 10 (6.1%) indicated that they never use e-books for all purposes. This implies that the majority of the respondents are regular users of e-books because they often use e-books for all purposes. It is noted that there were 60 respondents (36.4%) who did not respond to this question. The reasons for some of the frequencies with which respondents use e-books for the above mentioned purposes could be lack of awareness, e-books technology, lack of education and lack of publicity regarding the availability of that service.

#### 4.7 Part VI Frequency of usage pattern

In this section, the researcher wanted to examine the frequency with which respondents read e-books. Three categories were considered: the whole e-book, chapter from e-book and excerpts from e-book. The respondents were asked to

indicate their frequency in terms of usage pattern of e-books and the frequency options ranged from “very often” to “never”.

#### 4.7.1 Frequency of reading the whole e-book

Table 4.42: The frequency of reading the whole e-book (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	8	4.8	4.8	4.8
	Often	26	15.8	15.8	20.6
	Occasionally	35	21.2	21.2	41.8
	Rarely	37	22.4	22.4	64.2
	Never	21	12.7	12.7	77.0
	Non-response	38	23.0	23.0	100.0
	Total	165	100.0	100.0	

The above frequency table shows that 37 respondents (22.4%) rarely read the whole e-book, followed by 35 (21.2%) who indicated “occasionally”, 26 (15.8%) who indicated “often”, 21 (12.7%) who never read the whole e-book, eight (4.8%) who indicated “very often” and 38 (23.0%) respondents who did not respond to this question. This finding reveals that most of respondents rarely read the whole e-book. It is only a few respondents who read the whole e-book very often.

#### 4.7.2 Frequency of reading a chapter from an e-book

Table 4.43: The frequency of reading a chapter from an e-book (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	22	13.3	13.3	13.3
	Often	43	26.1	26.1	39.4
	Occasionally	49	29.7	29.7	69.1
	Rarely	11	6.7	6.7	75.8

Never	2	1.2	1.2	77.0
Non-response	38	23.0	23.0	100.0
Total	165	100.0	100.0	

With regard to reading a chapter from an e-book, 49 respondents (29.7%) occasionally read a chapter from an e-book, followed by 43 (26.1%) who said “often”, 22 (13.3%) who said “very often”, 11 (6.7%) who said rarely, 2 (1.2%) who said they never read a chapter from an e-book and 38 (23.0%) respondents who did not respond to this question. This finding indicates that most respondents read a chapter from e-book occasionally. It is only a few respondents who read a chapter from an e-book very often.

#### 4.7.3 Frequency of reading excerpts from an e-book

Table 4.44: The frequency of reading excerpts from an e-book (N=165)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very often	19	11.5	11.5	11.5
	Often	42	25.5	25.5	37.0
	Occasionally	48	29.1	29.1	66.1
	Rarely	13	7.9	7.9	73.9
	Never	4	2.4	2.4	76.4
	Non-response	39	23.6	23.6	100.0
	Total	165	100.0	100.0	

This usage pattern scored highly on the option “occasionally”, with 48 respondents (29.1%), followed by 42 (25.5%) who chose often, 19 (11.5%) who chose “very often”, 13 (7.9%) who chose “rarely”, four (2.4%) who chose “never” and 39 (23.6%) respondents who did not respond to this question. This finding indicates that the majority of respondents read excerpts from e-book occasionally, followed by those who do so often. Only a few read excerpts from e-book very often. This finding implies that most respondents use e-books as reference books to find specific information.

#### 4.8 Part VII Recommendations to increase usage rate

Respondents were asked to make recommendations as to what the Library can do to improve the usage of e-books by academic staff in the CHS. The following questions were asked:

(a) "What can the Library do to make you more aware of available/ new e-books?"

The following recommendations were made:

- i) 50 (30.30%) recommended that they be made aware via email notifications.
- ii) 20 (12.12%) suggested that the Library send regular notifications about new available titles.
- iii) 20 (12.12%) suggested that announcements be put on Unisa's Internal Communication (Intcom).
- iv) 20 (12.12%) suggested that their personal librarian provide them with information about available e-books.
- v) Eight (4.85%) recommended that a link with a list of newly acquired e-books be put on the library website.
- vi) Five (3.03%) recommended that a website devoted to new e-book titles be created.
- vii) 39 (23.64%) advised that advertisements be put on the library website.
- viii) Three (1.82%) suggested that training and workshops about e-books be conducted.

This finding implies that the majority of respondents recommended that they be made more aware about the availability of e-books via email notifications. Email proves to be the best method of marketing e-books to respondents.

(b) Recommendations on what the Library can do to meet respondents' purposes for using e-books were as follows:

- i) 61 (36.97%) recommended that training and workshops be conducted.

- ii) 69 (41.82%) suggested that e-books be made available when users need them, that departments be consulted on which e-books to order and that a manual be made available to help students learn how to access e-books.
- iii) 35 (21.21%) suggested that more e-book titles be acquired. They gave the following suggestions:
  - Lots more titles on fantasy, fairy-tales and the Gothic.
  - Acquire more e-books on specific fields/subjects e.g. new titles be added in Afrikaans.
  - Provide a variety of titles.
  - Subscribe as widely as possible to lists.
  - When an e-book version of a title is available, also purchase a hard copy.

The comments indicate that the majority recommend 24/7 availability of e-books, that students be provided with a guide on how to access e-books and that academics be part of the ordering process for e-books.

c. Respondents gave the following recommendations on “What the Library can do to encourage respondents to use e-books”:

- i) 51 (30.91%) suggested that e-books should be relevant to users.
- ii) 41 (24.85) recommended that awareness be increased.
- iii) 50 (30.30%) recommended that availability should increase.
- iv) 23 (13.94%) recommended that all books be ordered in e-book format, especially the most utilised or requested titles and that books that are available in print should also be made available in e-book format.

From the comments it may be noted that the majority of respondents have a strong desire for e-books to be relevant to users. It is also interesting to note there are some who are eager to have all books available in this format.

(d) “What can the Library do to make e-books more accessible?”

Forty-one (24.85%) recommended that e-books be made accessible to many readers. The following recommendations were made:

- E-books must be accessible anytime and anywhere.
- E-books must be accessible by more than one user at a time.
- Networks must be improved to allow accessibility.
- Full access from home should be given.

Thirty-two (19.39%) recommended that the Library should ensure 24/7 availability and 10 (6.06%) suggested that e-books be advertised often, especially on relevant topics in respondents' field of interest. Another suggestion was to market on Unisa's communication website.

Twenty-three (13.94%) recommended the following:

- Email notification should be sent for every new e-book.
- There should be presentations on the advantages of e-books.
- Allow browsing of e-books according to subject categories.
- Respondents should be told about the importance of using e-books, i.e. what the benefits are of using them.
- The Library should increase the budget dedicated to e-books. If a user finds a book on another search engine like Google Play or Amazon, then there should be a link that will allow him/her to ask the Library to order that particular e-book. He/she should also be informed when he/she can access that particular e-book.
- A user's guide should be developed.
- The Library should work with ICT to resolve access problems.
- Lectures need to refer students to e-books all the time.
- The interface for e-books should be made more user-friendly.
- Printing restrictions should be reduced.

- Show how to access e-books from campus.
- The Library should ensure that Internet connection is good.
- It should be possible to open more than one copy at once.
- There should be constant reminders/ banners online and in the Library.
- There should be pamphlets about e-books.
- There should be no restrictions on printing chapters.
- The Library should make e-books easy to download and browse.

This question was not applicable to 59 respondents (35.76%).

The above recommendations show that simultaneous access is an issue with the majority of respondents. 24/7 availability was also mentioned with regard to ensuring accessibility.

#### **4.9 Summary of chapter 4**

This chapter has analysed and presented data that was collected by means of a questionnaire. The main aim of this study was to investigate the perception of academics in the College of Human Sciences on the use of e-books in their core business of teaching and research. The following findings of this study cannot be used as a generalisation to all academic staff in the CHS, on account of the low response rate.

- (i) The majority of respondents are aware about the availability of e-books at the Library.
- (ii) The majority of respondents' frequency with which they use e-books is occasionally or often.
- (iii) The majority of respondents use e-books for research.
- (iv) The level of importance that respondents attach to e-books features.
- (v) Reasons for low usage.

- (vi) Recommendations on what can the Library do to increase awareness, usage and accessibility and to meet respondents' purpose of use.

The next chapter discusses the findings of this study.

## **CHAPTER 5**

### **DISCUSSION OF FINDINGS**

#### **5.1 Introduction**

Chapter 4 analysed, presented and interpreted the results of the study. This chapter discusses the results obtained from the analysis and interpretation of the data which were presented in chapter 4. The discussion is based on research questions and literature review of the study. This study aims at establishing the perception of academics in the College of Human Sciences on the use of e-books, especially in their core business of teaching and research, in order to invest in a well-focussed and relevant e-book collection.

A survey on the perception of the academic staff in the College of Human Sciences was conducted using a questionnaire. The results are presented, analysed and interpreted in chapter four. All departments in the College were represented. The researcher found it essential to obtain departmental distribution of the respondents in order to gather perceptions from all different departments. According to Arshad and Ameen (2018:475), a distinguishable difference exists between disciplines with regards to using e-books. In this study the departments that had more respondents than other departments were Communication Science, English Studies, Information Science, Social Work and History.

In order to establish the usage rate of the academic staff in the CHS (which the Unisa library statistics system could not reveal because the authentication is confidential), this study was conducted focusing on awareness of e-books, the frequency with which e-books are used, the use to which academic staff put e-books, reasons for low usage and recommendations to increase the use of e-books. The demographic profile of the academic staff was also checked.

#### **5.2 Demographic profile of respondents**

Establishing whether age distribution has an influence on how academic staff in the CHS perceive the usage of e-books is important, as mentioned in section 4.2.2.

In this study most of the respondents were between the ages of 30 and 39 years (36%) and the lowest age range was 20-29 years (9%) (as reflected in section 4.2.2). Grenina (2012) found that the adoption and usability of e-books differs with age, with ages 19 to 25 and 46 to 55 showing lack of experience of using e-books.

In the CHS female academic staff are in the majority, with 92 female staff members (55.8%) as opposed to 72 male academic staff member (43.6%) (as reflected in section 4.2.3). It is vital to determine whether gender differences play a role in the usage of e-books. Goswami and Dutta (2016: 51) state that gender plays a significant role in determining the acceptance of new technology. Rowlands et al (2007:489) found that for most disciplines, the majority of existing e-books users were probably male, because the majority of them showed familiarity with this technology as they retrieved e-books for themselves.

The majority (47.3%) of the respondents were lecturers (78 respondents). Professors and associate professors were a lesser number with 21.2% as compared to lecturers (as reflected in section 4.2.5). It be could they no longer have an interest in learning new technologies as they have reached the peak of their professional development. Carlock (2008:8) attests to this statement by mentioning that some professors use e-books to help induce interest in print books amongst their students.

### **5.3 Awareness of the availability of e-books in the Unisa Library, method of awareness and awareness of e-services used**

This study showed that the majority of respondents (as reflected in section 4.3.1) were aware of the availability of e-books in the Unisa Library. This is not surprising because personal librarians do create awareness about e-books during departmental meetings. New packages of e-books are also advertised in the Library catalogue by collection developers. As mentioned in section 1.2.2. This finding suggests that there are different methods through which respondents became aware of e-books of which library e-resources databases played a major role (as reflected in section 4.3.2). This finding is similar to a study by Cheong and Tuan (2011:7), which reveals that most of the staff in the Nanyang Technological University Library were aware of the e-book format. This view is also reflected in the responses obtained by a University of Liverpool Sydney Jones Library survey on "A Survey of eBook Usage and Perceptions

at the University of Liverpool” (2010) done at the University of Liverpool, which indicated that more than 80% of the respondents were aware that they have access to e-books through the library. Findings by Ashcroft (2011:399) also indicate that faculty became aware of the availability of e-books through library-subscribed databases.

Respondents’ level of awareness is evident in the e-book services that they indicated they are aware of. Even though Taylor and Francis was the most popular e-book service, there were other e-book services such as Springer E-journals and E-books, Cambridge Companion Online, Emerald E-Books Series, De Gruyter Online E-books, Ebrary, Brill E-books Collection, MyiLibrary E-books, Sage, EBSCOhost and Routledge of which respondents were aware (as reflected in section 4.3.3). However, this was not the case in Canada at the University of Ottawa, where Bratanek (2013:9) reports that the Springer eBook collection was the first e-book service of which users were made aware when they were informed that they could get a book in both a print and an electronic format. Ebrary, MyiLibrary, Springerlink and Scholars Portal Book were later added as part of the e-book collection.

#### **5.4 Discussion of the findings on usage on e-books**

Determining the level of awareness about the availability of e-books is insufficient without knowing if they are used or not. Therefore, it was essential to determine how many academics use e-books. It seems that the majority of respondents use e-books (as reflected in section 4.4.1). This finding corresponds with the findings by Ramaiah (2012:88), who found that the majority of users have used e-books before and a few have not.

##### **5.4.1 Discussion of the findings about preference between print and electronic copies**

Both print and e-books have unique advantages in serving and meeting the users’ needs. Therefore, preference between print and electronic copies depends on user’s reading needs. Carlock and Perry (2008:251) report that many participants in their study preferred a print copy because it helps them to visualize and remember where they read particular information. They add that many professors expressed a great fondness for print books. Cheong and Tuan (2011:27) found that users have a strong

preference for print. Similarly, when respondents of this study were asked to indicate their preference, most of them preferred a print copy (as reflected in section 4.4.2). One of the respondents indicated that “if in a hurry e-book is preferred copy”. This finding is in line with that of Kahn (2013:102), who found that there are circumstances that compel users to resort to using e-books.

#### 5.4.2 Discussion of the findings about e-book services used

This study shows that most respondents were not only aware of Taylor and Francis (as reflected in section 4.3.1), but they also used this e-book service more than other e-books services (as reflected in section 4.4.3). This could be an indication that it meets the needs of the respondents. This was not the case at the University of Southern Queensland, where Borchert, Hunter, Macdonald and Tittel (2009:10) highlight that eBrary emerged as their favorite e-book service, which is evident their usage statistics.

#### 5.4.3 Discussion of the findings about purpose of using e-books

The purpose of use may differ, depending on the use to which users put e-books. According to Carlock and Perry (2008:253), professors at Arizona State University used e-books for the purpose of teaching in order to cater for the growing number of distance learners. On the other hand, Kahn (2013:94) found that most users use e-books for the purpose of research. The findings of this study also reveal that most of respondents use e-books for conducting research (as reflected in section 4.4.4). It seems that e books were found to be useful for this purpose, hence the data reveal that most of respondents do not prescribe them as textbooks for their students (as reflected in section 4.4.5). It could be that respondents have doubts about using them for purpose of teaching. One of the reasons mentioned by respondents was “uncertainty about their accessibility on the Internet” (as reflected in Chapter 4, section 4.4.5). Kahn (2013:71) also found that only a few respondents use e-books for teaching. Nevertheless, according to Embong, Noor, Hashim, Ali, Shaari (2012:1805), “E-books have the potential to provide teachers with a teaching tool that can help them to effectively deliver their lessons to their students”. Alonso, Cordón and Gómez (2011) also anticipate that there is a great potential for e-books to be used for teaching in the future.

Findings by Kahn (2013) and Romero-Otero, Iglesias Fernandez and Gimenez Toledo (2013) also reveal that only a few respondents use e-books for study. Contrary to the findings of this study, Kahn (2013:71) found that the majority of respondents use e-books for recommended course readings. A study by Miller and Pellen (2009:122) attests to this finding by revealing that most of the faculty members used e-books for course preparation.

#### 5.4.4 Discussion of the findings about adequacy of e-book collection and prescribing e-books as textbooks

Respondents in this study are dependent on information resources to carry out their teaching and learning. Inadequacy of information could hamper their goal. It seems that e-books are mainly adequate for research. This was revealed by the data of this study, which indicate that a majority of respondents find them mainly sufficient for research as compared to teaching (as reflected in Chapter 4, section 4.4.6). Hence, a majority of them indicated that they do not prescribe them as textbooks for their students (as reflected in Chapter 4, section 4.4.5). Some of the recommendations made by respondents were to add “lots more titles on fantasy, fairy-tales and the Gothic”, “acquire more e-books on specific fields/ subjects e.g. new titles be added in Afrikaans”, “provide a variety of titles” and “subscribe as widely as possible to lists”. Jamali et al (2009:17), in a study to evaluate e-book usage and information seeking and reading behaviour, found that a lack of e-book titles was one of the main problems encountered by users.

#### 5.4.5 Discussion of the findings about how e-books are used

The Library desires that its e-books be used in order to show a good return on the investment made in them. The finding of this study shows that most respondents use e-books for finding relevant content only (as reflected in section 4.4.7). The reason could be that they find discomfort in reading the whole book online, hence most of them strongly agreed and agreed that “reading from the screen is eye straining” (as reflected in section 4.5(e)). This could mean that respondents use e-books as a reference source. Similarly, findings by Ahmad (2015:37) reveal that “e-books were gaining in popularity and mass acceptance especially for fact finding information or reference use”. It seems print books are preferable for extended reading. This is

evident in the data, which revealed that a majority of them regard “printing chapters from e-books” “very important” (as reflected in section 4.4.9(q)).

#### 5.4.6 Discussion of the findings about devices used to access e-books

It appears that respondents have used a variety of devices to access e books. This is seen in the findings of this study that indicate that laptops, tablets, cell-phones and home desktops were the devices that were used. Laptop was the most popular device used, as reflected in section 4.4.8. This finding is in line with that of Kahn (2013:87), who found that the most commonly owned device by university staff is the laptop and thus suggesting a higher likelihood of accessing e-books using this device. On the contrary, in a study that was conducted by Romero-Otero, Iglesias-Fernandez, Gimenez Toledo (2013:6), the findings revealed that the most used device for reading e-books is the PC, followed by e-readers, with mobile phone coming last. Unlike the Unisa respondents, most of these respondents who use the PC miss the opportunity of using a device that can allow them access to e-books anywhere and anytime.

### **5.5 Discussion of the findings about the importance attached to e-book features**

Using e-books is in line with what the University is aiming at, which is e-learning. E-books can offer certain features that distinguish them from print books. The study revealed the level of importance that respondents attach to these e-book features. This helps to establish what users’ expectations are.

#### **(a) Connection (on campus and off campus, accessing e books anytime of the day or night, reading e books as webpages)**

Accessibility is inseparable from connectivity. One cannot gain access without connectivity. This study revealed the level of importance that respondents attach to connectivity on / off campus, as well as accessibility. According to Al Saadi, Lane-Kelso, Al Hafeedh, Al Sheithani and Al Wishahi (2017:17), off-campus access (remote access) was one of the most commonly perceived advantages of using e-books. On the contrary, Hoseth and McLure (2012:283) found that respondents at Colorado State University Libraries raised the concern that accessibility to e-books is restricted to users with Internet connectivity, which might be a problem when conducting

research in remote locations where there is a lack of Internet connectivity. Connection both on and off campus is indeed a matter of concern to users because the majority of respondents in this study rated this feature as very important (section 4.4.9 a). The reason could be that they sometimes work or do their research from home or in remote locations. Connectivity enables users to do online reading, which is why a majority of them regarded “reading e-books as webpages” as important (section 4.4.9(k)).

As a result, respondents also rated day and night access to e books as very important (section 4.4.9 b). Zinn and Langdown (2011:105) affirm that one of the benefits of using e-books is 24/7 accessibility. Availability around the clock was also mentioned as one of the recommendations that can meet respondents’ purpose of using e books, as reflected in section 4.8(b). Rabi, Ojukwu, Oladela (2016:166) confirm this finding by stating that the availability of e-books is beneficial because they are remotely accessible and available around the clock.

#### **(b) Relevance to curriculum e-book feature**

In this study, the majority rated “relevance to curriculum” as very important, as reflected in section 4.4.9(c). This could be an indication that relevance to curriculum is a concern for most of the users. This is evident in the recommendations to encourage respondents to use e books, where the majority of them suggested that “e-books should be relevant to users” (as reflected in section 5.8 (c)). However, a majority of respondents did not regard “irrelevance to curriculum” as their reason for not using e-books (as reflected in section 4.5(i)). It can be noted that Collection Developers use subject profiles/ subject guides, tutorial letters and curriculum as a guide when ordering e books. Similarly, Shelbourne (2009:61) found that respondents used e-journals rather than e-books because e-book titles were not relevant to their research needs. Kahn (2013:68) also found that respondents felt that there is underrepresentation of certain disciplines.

#### **(c) Searching full text of e-books and browsing e-book text**

The study also revealed the level of importance that respondents attach to searching the full text of e-books and browsing e-book text. In terms of searching the full text, the majority of respondents rated this feature as “very important”, as reflected in

section 4.4.9(d). This feature allows one to find the more relevant articles that one wants on the webpages (Lin 2009:1). It is for this reason that respondents also rated reading e-books as webpages very important (as reflected in section 4.4.9(k)). The researcher assumes that users find it useless to use e-books if they cannot get to all the information they require. The finding of this study corresponds with findings by Cheong and Tuan (2011:15), who found that the majority of users regarded full-text searching as essential. Folb, Wessel, Czechowski (2011:218) also found that “users preferred federated full–text search options to searching the library catalog”. On the contrary, Kahn (2013:84) found that out of four universities she surveyed, only one university had a majority that regarded “reading e-books as webpages” as important. With regard to browsing e-book text, Ghaebi and Fahimifar (2011:780) mention that the Iranian respondents commented that searching within e-book texts when looking for specific information is easy. A majority of respondents in this study regarded “browsing e-book text” as very important, as reflected in section 4.4.9(e). The reason could be that most of them indicated that they use e-books for finding relevant information (as reflected in section 4.4.7). The importance of this feature was observed in the data, which reveal that most of the respondents agreed and strongly agreed that “hard to browse” was their reason for not using e-books as reflected in sub-section 4.5(l).

#### **(d) Ability to download the text and downloading e-books to another device**

Findings of this study show that the large majority of respondents regarded “downloading the text” as important, as reflected in section 4.4.9(f). This feature offers an opportunity to gain access to an e-book without Internet connectivity, which is helpful when conducting research in remote areas. The majority of the respondents consequently rated “downloading e-book to another device” as important, as reflected in section 4.4.9(h). Hoseth and McLure (2012:280) state that the ability to download to a personal device offers convenience. This is observed in the findings by Li, Poe, Potter, Quigley and Wilson (2011:14), which indicate that a large majority of respondents rated downloading e-book portions or chapters of the e-book to a device as very important or somewhat important. On the contrary, Kahn (2013:105) also found that downloading to cell-phones was not respondents’ top priority.

Similar findings were revealed by Cassidy, Martinez and Shen (2012:330), who established that one of the comments expressed by respondents was that they want to download an e-book for offline reading. The results of a study by Cheong and Tuan (2011:16) also show that the majority of respondents have a huge need for downloading, as they regard this feature as essential. The researcher assumes that “ability to download the text” is a requisite for respondents. This is noticeable in the data, which indicate that most of the respondents agreed and strongly agreed that “downloading is slow” was their reason for not using e-books (section 4.5(h)).

### **(e) Content presentation**

Hoseth and McLure (2012:282) establish that one of the commonly mentioned concerns was that e-books appear differently on different devices. Carlock and Perry (2008:250) suggested that graphic design professors should circulate print book in class to supplement information, such as illustrations and plates, which gets lost with e-books. The majority of the respondents selected “very important” for this feature, as reflected in section 4.4.9(i). It is very important that content is well presented in e-books because it will serve no purpose to depend on an e-book if users will afterwards have a need for a print book, which might not be available at the time.

### **(f) Making notes, highlighting and bookmarking in e-books**

D’Ambra, Wilson and Akter (2012:61) mention that there is a need to interact with the text by being able to highlight, add notes and do bookmarking for future reference. Findings of this study show that bookmarking had most respondents choosing “very important” as the level of importance they attached to it. Bookmarking helps to save information so that it is easy to trace in future. D’Ambra, Wilson and Akter (2012:61) mention that the need to find relevant content quickly, as well as referencing the text in the future, is addressed by bookmarking. According to Jamali et al (2009:37), respondents commented that bookmarking was one of the advantages of using e-books.

With regard to highlighting, most respondents chose “very important” (as reflected in section 4.4.9(o)). According to Kahn (2013:90), respondents indicated that they only became aware that highlighting was one of the e-book feature when they participated

in the study, hence the majority indicated that they would prefer a print book because they can do highlighting. The researcher thinks this shows how important this feature is to users. Anuradha and Usha (2006:51) attest that highlighting is possible in e-books by mentioning that “e-book reader software allows users to highlight”.

For the feature “making notes in e-books”, most respondents chose “very important” (as reflected in section 4.4.9(n)). It could be that respondents need to write notes about important points to remember in e-books, hence they felt this feature was very important. This is evident in findings by Hoseth and McLure (2012: 282), which revealed that the inability to write notes in e-books was one of the most commonly mentioned concerns. Staiger (2012:359) found that difficulties with annotation were the main drawbacks. On the contrary, Cheong and Tuan (2011:14) found that most users do not value annotation highly.

**(g) Portability, reading e-books in PDF and other available formats, copy and paste from e-books and reading multiple copies of e books**

Olasina and Mutula (2014:246) found that the majority of respondents at the University of Ilorin perceive e-books to be better than print books in terms of portability/weight. Findings of this study also show that the majority of respondents regard portability as a “very important” feature of e books, as reflected in section 4.4.9(r). Using e-books is convenient for respondents because they can access them on their portable devices. This makes an e-book a portable book that can easily be carried anywhere, because it can be read in electronic format. That is why the majority of respondents regard reading e-books in any/ all available formats as “very important” (as reflected in section 4.4.9(l)). It seems PDF is the most preferred format, as the findings reveal that a large majority of the respondents (66.6%) selected “very important” as the level of importance they attach to this feature (as reflected in section 4.4.9(j)). Vasileiou, Hartley, Rowley (2012:29) also found that PDF is the format preferred by the majority of the participants. Similar findings were revealed by Selthofer (2013:93), who found that all respondents have mostly read e-books in PDF format. The researcher thinks that users want to take advantage of the portability of e books in the electronic formats by being able to use more than one e-book at once. This is noticeable in the findings, which indicate that “ease of use when reading

multiple copies of e-books at the same time” was rated “very important” by the majority of respondent, (as reflected in section 4.4.9(m)).

Though some e-books do allow copying, there are some that do not. This is why “copy and paste from e-books” was rated “very important” by the majority of respondents (as reflected in section 4.4.9(g). The reason could be it saves them time when collating information from different sources for conducting research, preparing course readings, teaching and studying. This is evident in the findings by Cassidy, Martinez and Shen (2012: 329), who established that respondents regard this feature as very important because when compiling lecture material for courses, retyping and citing a long passage is tiresome, whereas the cut-and-paste function works better for them. On that account, a study by Hoseth and McLure (2012:280) revealed that copy and paste was frequently perceived as an advantage.

#### **(h) Printing out chapters from e-books**

The results of this study indicate that the majority felt this feature was “very important”, as reflected in section 4.4.9(q). It could be that they find discomfort in reading chapters of a book online. This was evident in the findings, which show that in terms of preference, most of them preferred print copy (as reflected in section 4.4.2). Similarly, Kahn (2013:81) also found that “printing chapters from e books” was highly important to the majority of respondents. The importance of this feature is evident in the findings by Soules (2009:16), who highlights that faculty were concerned that e-books have too many restrictions, one of them being printing. In the findings by Jamali et al (2009:35) respondents also mentioned printing as one of the top features that will make e-books more suitable for use.

### **5.6 Discussion of the findings about reasons for low usage of e-books**

The researcher found it essential to establish reasons for low usage of e books so that the Unisa Library can be cognisant of the reasons when investing in purchasing e-books. The study looked at the following possible reasons:

### **(a) Lack of awareness**

Staiger (2012:356-358) found that there is a huge gap in the level of awareness in colleges and universities. D'Ambra, Akter and Wilson (2013:6) established that lack of awareness of the availability of e-books is one of the factors that hinders their adoption and usage. Posigha (2011:800) relates to the statement by D'Ambra, Akter and Wilson (2013) in stating that "lack of awareness was identified as a primary barrier inhibiting usage..." However, findings of this study show that a majority strongly disagreed and disagreed with the statement that "lack of awareness" was their reason for not using e-books (as reflected in section 4.5(a), since they indicated that they were aware of the availability of e-books at the Unisa Library (as reflected in section 4.3.3).

### **(b) I do not know where to find e-books**

The finding indicates that a majority of respondents strongly disagreed and disagreed that they did not know where to find e-books, as reflected in section 4.5(b). This could be because they are using the e-resources databases that are available in the library catalogue and on other platforms and it is easy to come across the option for e-books. The results contradict those of Kahn (2013:65), who found that respondents listed "I do not know where to find e-books" as one of the top reasons for not using e books. Posigha (2011:800) also found that the main reason why users have not tried to use e-books was because they did not know about the availability of that option.

### **(c) Simply prefer print**

One of the reasons for not using e books could be that respondents simply prefer print books. However, the majority of the respondents strongly disagreed and disagreed that "simply prefer print" is their reason for not using e-books, as reflected in section 4.5(c). It could be that they have other reasons, such as experience with e-books or other challenges, which hinder them from using e-books. As an example, Staiger (2012:360) found that respondents prefer print books because they have better search functions than e-books. On the contrary, Olasina and Mutula (2014:244) found that searching within e-book texts when looking for specific information is easy. It is, however, interesting to note that findings by Grenine (2012) reveal that most users do not prefer print books at all.

#### **(d) I am used to reading print I do not want to change**

The researcher thinks unwillingness to adapt to new technologies can contribute to low usage of e books. Findings of this study indicate that most respondents strongly disagreed and disagreed with this variable, as reflected in section 4.5(d). This could imply that they have other reasons for not using e books or perhaps they are a part of the group that stated that they are not aware of e-books (as reflected in section 4.3.1). This finding is in line with that of Kahn (2013:66), who found that this variable was not one of the top reasons for not using e-books. On the contrary, Anuradha and Usha (2006:51) state that one of the reasons e-books are not very popular is because “people are used to reading printed books and do not want to change the habit”.

#### **(e) Reading from the screen is eye straining**

The results show that most of respondents strongly agreed and agreed that reading from the screen is eye straining, as reflected in section 4.5(e). This implies that reading from the screen is an issue with most of the respondents. Hence, most of them preferred a print copy (as reflected in section 4.4.2). This finding is in line with that of Shelbourne (2009:64), who also found that difficulty in reading from the screen was identified by most respondents as a primary disadvantage of using e-books. Staiger (2012), Jamali et al (2009), Posigha (2012) and Hoseth and McLure (2012) share similar findings. Carlock and Perry (2008:251) confirm the findings of this study by stating that respondents are willing to try e-books, but have some uncertainties about how they would take the experience of reading from a screen.

#### **(f) Interface of e-books differs on different devices**

Grenina (2012) suggested that there should be interfaces that meet the needs of different age groups, because the same interface for all might be complicated for the middle aged. Enlarged font size and a clear visible search bar were highlighted as two of the features that can accelerate the usage of e-books. Hoseth and McLure (2012:282) confirmed that e-books do not appear the same way on different devices (as mentioned in section 5.5(h)). This study found that only 17.6% disagreed and strongly disagreed, while most respondents (45.5%) strongly agreed and agreed with the assertion, as reflected in section 4.5(f). It could be that this is a concern to them because findings show that they use a variety of devices to gain access to e-books,

as reflected in section 4.4.8. On the basis of what has been said by Grenina (2012), it could be that the ones who disagreed that “interface of e-books differs on different devices” belong to the younger generation.

#### **(g) Lack of Internet connectivity when doing research in remote areas**

Most respondents strongly agreed or agreed that lack of Internet connectivity when doing research in remote areas was one of their reasons for not using e-books, as reflected in section 4.5(g). That is why connection on or off campus was regarded as very important by a majority of respondents, as reflected in section 4.4.9. This can make them prefer using print as their favorite format. This finding supports the findings by Hoseth and McLure (2012:283), who expressed the view that several individuals were concerned that they may not be able to access e-books when “... they are not able to connect to the Internet, such as when they are in the field conducting research at remote locations”. A similar view was shared by Shelbourne (2009:64), who found that respondents mentioned problems with Internet access as one of the primary disadvantages of using e-books.

#### **(h) Downloading is low**

According to Cheong and Tuan (2011:16), respondents indicated a “greater need for downloading”. A survey by Sue (2012:5) indicates that “... patrons were unsuccessful in downloading e-books owing to technological issues”. Anuradha and Usha (2006:51) state that e-books are not very popular because of problems with downloading. Findings of this study show that most respondents agreed and strongly agreed that downloading is slow, as reflected in section 4.5(h). It could be that they prefer reading e-books offline, but they experienced problems with the speed of the network when downloading them.

#### **(i) Irrelevance to the curriculum**

Findings of this study indicate that most respondents disagreed and strongly disagreed that irrelevance to the curriculum was their reasons for not using e-books, as reflected in section 4.5(i) although “relevance to curriculum” was rated “very important” by the majority of respondents, as reflected in section 4.4.9(c). This could mean they do not regard it as their main reason for not using e books. Collection developers order e books according to subject profiles/ subject guides, tutorial letters

and curriculum. This finding contradicts the findings by Shelbourne (2009:61), who found that at the University of Illinois, respondents stated that they only use e-journals as compared to e-books. The issue is relevancy, meaning respondents did not find what they were looking for. Ramaiah (2012:86) relates to this statement in stating that in India, lack of Indian content in electronic format is one of the factors that hinders e-books from being common with the Indian population. Maepa (2013) expresses a similar notion by stating that there is a lack of e-books in indigenous languages; most of them are in foreign languages, indicating a major barrier. Cheong and Tuan (2011:11) found that respondents do not find e-book titles useful to them.

#### **(j) Limited number of titles available**

Most of the respondents strongly agreed or agreed that there is a limited number of titles available, as reflected in section 4.5(j). This is observed in the findings in section 4.4.6, which shows that e books are not adequate for purposes such as teaching. Collection developers order e format of recommended books when available (refer to chapter 1 section 1.3). Similarly, Kahn (2013:68) found that at Western Cape University Libraries, researchers expressed a concern that there is an unavailability of titles in e-book format. This finding contradicts the statement by Moldre (2014:104), who found that the number of titles offered grew continuously every year (as stated in section 2.3 on page 12).

#### **(k) Access restrictions on the number of simultaneous users**

Most respondents strongly agreed and agreed that access restrictions on the number of simultaneous users are the reasons for not using e-books, as reflected in section 4.5(k). The Unisa Library Collection Developers always try to select a model that allows for multiple simultaneous access in order to meet the needs of users. Hoseth and McLure (2012:282) found that students and faculty at Colorado State University Libraries showed a strong desire for e-books to allow simultaneous access by multiple individuals. This finding, however, contradicts that of Jamali et al (2009:39), who found that multiple-user access was listed by academics in the UK as one of the advantages of using e-books. They add that “students do not have to wait for the hardcopies to be returned by other students or put up with short loans and the like”.

### **(l) Hard to browse**

Martin and Quan–Haase (2013:1024) mention that browsing in e-books is different to browsing from the shelf. This is because while one browses from the shelf, one can accidentally come across another book for which one was not initially looking. Anuradha and Usha (2006) and Staiger (2012) state that it is hard to do browsing with e-books. Hoseth and Mclure (2012:280) add that most of the respondents in Bangalore, India, find e-books to be subject dependent because they are hard to read and browse when studying subjects like English, which involves a lot of reading. The results of this study show that most respondents agreed and strongly agreed that e-books are hard to browse, as reflected in section 4.5(l). It could be because their subjects involve a lot of reading. That is the reason why browsing was rated very important in section 4.4.9(e).

### **(m) Inability to open multiple copies at once**

Most respondents strongly agreed and agreed that the inability to open multiple copies at once was their reason for not using e-books, as reflected in section 4.5(m). Hence they rated “ease of use when reading multiple copies of e-books at the same time” very important, as reflected in section 4.4.9(m). Respondents base their conclusions on the information they find from different sources. It is therefore helpful to open more than one copy in order to make comparisons of the content. This finding supports that of Soules (2009:16), who found that respondents regard the inability to open multiple e-books at once as one of the restrictions of e-books. Similarly Hoseth and McLure (2012:282) also found that this was one of the commonly mentioned concerns of using e-books. One of the respondents regarded this as a limitation of using e-books.

### **(n) E-books reduce control over plagiarism and increase copyright concerns**

Jamali et al (2009:44) identified “e-books reduce control over plagiarism and increase copyright concerns” as one of the disadvantages of using e-books. Most of the questionnaire respondents agreed and strongly agreed that e-books reduce control over plagiarism and increase copyright concerns, as reflected in section 4.5(n). This can make respondents reluctant to use e-books. This finding contradicts the statement of Moldre (2014:94), who expresses that in Estonia, the uncertainties about

copyright were resolved by the establishment of e-publishing service providers in 2010.

#### **(o) Inability to make notes**

D'Ambra, Wilson and Akter (2012:61) mention that there is a need to interact with the text by being able to add notes. Hoseth and McLure (2012:282) attest that the inability to write in e-books was the most commonly mentioned concern, a view that is shared by Jamali et al (2009:44), who state that it is hard to annotate in e-books. Most of the respondents in this study also agreed and strongly agreed that the inability to make notes was their reason for not using e-books, as reflected in section 4.5(o). The inability to make notes can be a drawback in e-books because making notes helps one remember and locate important points (as mentioned in section 5.5(f)). It seems that the inability to make notes is a discouragement to respondents, as most of them rated it as very important in section 4.4.9(n).

#### **(p) Inability to flag pages for future reference**

The majority agreed and strongly agreed that the “inability to flag pages for future reference” was their reason for not using e-books, as reflected in section 4.5(p). This finding implies that the inability to do so in e-books discouraged the majority of respondents from using e-books. It could be because flagging pages makes them stand out and easy to find. This finding supports that of Hoseth and McLure (2012:282), who mention that users are concerned about the inability to flag pages for future reference.

#### **(q) E-books can easily be deleted accidentally**

Most respondents agreed and strongly agreed that “e-books can be deleted accidentally” was their reason for not using e books as reflected in section 4.5(q), a sentiment that is shared by Jamali et al (2009), who further add that this might contribute to low usage of e-books. Carlock and Perry (2008:251) found that most respondents indicated that a primary factor that would increase their interest in e-books is a trust that they would be a reliable source. The results suggest that most respondents are hesitant that a particular e-book will always be there online when they need to use it.

## **(r) Restrictions on number of pages to be printed**

According to Hoseth and McLure (2012:282-283), restrictions on the number of pages to be printed was one of the concerns mentioned by users. As an example, the MyiLibrary platform limits the number of pages because it suspects one is trying to print more than what the copyright allows, therefore it rejects the user from printing other pages. Restrictions on printing are also mentioned by Soules (2009:16) as one of the restrictions of an e-book. This sentiment is also shared by Slater (as cited in Staiger 2012:359), who concurs that printing is one of the reasons why e-books have not been more readily adopted. Findings of this study also indicate that most respondents agree and strongly agreed that restrictions on the number of pages to be printed was one of their reasons for not using e-books, as reflected in section 4.5(r). This is also noticeable in section 4.4.9(q), whereby a majority regarded printing out chapters of an e book as very important.

## **5.7 Discussion of the findings about frequency with which e-books are used**

Carlock and Perry (2008:247) establish that the human sciences communities at the University of Denver are less frequent e-book readers in spite of the fact that their subject requires them to do a lot of reading. Levine–Clark (as cited in Ashcroft 2009:35) further adds that they use e-books with almost the same frequency as other respondents in the University. However, Cheong and Tuan (2011:17) found that at the Nanyang Technological University Library, frequency levels differ by disciplines. This study indicates that only a few respondents (10.3%) used e books very often. Nevertheless, they were used occasionally by most respondents (34.5%), as reflected in section 4.6. This indicates that even though the majority (66.06%) indicated that they use e books, as reflected in 4.4.1, most used them occasionally.

### **5.7.1 Discussion of the findings about frequency with which e-books are used for preparing course readings, study, teaching and all purposes**

Most respondents occasionally use e-books for preparing course readings. This could mean that a few respondents that indicated that they use e books for the purpose of preparing course readings (as reflected in section 4.4.4) also do not do so regularly but rather occasionally. Similar to these findings are the findings in a study by

Romero-Otero, Iglesias Fernandez and Gimenez Toledo (2013), who found that the purpose for which respondents least used e-books was class preparation.

However, it seems e-books were used for study, teaching and all purposes often. This is because when respondents were asked to indicate the frequency with which they used e-books for study, most selected “often” as reflected in section 4.6.2. The researcher assumes these are respondents that indicated that they use e-books for the purpose of studying in section 4.4.4. It might be they find them useful for this purpose. This finding contradicts that of University of Liverpool Sydney Jones Library (2010), which indicates that faculty members less frequently used e-books for studying.

Most of the respondents also selected “often” for the frequency with which they use e-books for teaching, as reflected in section 4.6.3. These could also be the respondents who indicated that they use e books for the purpose of teaching, as reflected in section 4.4.4. It means they find them suitable for teaching. This finding is supported by Martin and Quan-Haase (2013:1023), who highlight that one of the purposes for which lecturers adopted e-books, was teaching.

It is interesting to note that most of respondents use e-books for all purposes often. Romero-Otero, Iglesias Fernandez and Gimenez Toledo (2013) say that e-books are mainly used for work and research. Findings of a survey of e-book usage at the University of Liverpool Sydney Jones Library (2010) show that the majority use e-books for training, preparing course material and teaching though the frequency with which they use e books was not stated.

## **5.8 Discussion of the findings about frequency of usage pattern**

Determining how frequently respondents read e-books is insufficient without knowing the pattern with which they use e books. Patterns such as reading the whole e-book, a chapter from e-book and excerpts from an e-book were examined.

### 5.8.1 Discussion of the findings about frequency of reading the whole e-book, chapter from an e-book and excerpts from an e-book

Findings of this study show that most of respondents rarely read the whole e-book, as reflected in section (4.7.1). Hoseth and McLure (2012:280), concurs that participants do not want to spend much time on a digital book when reading long documents such as dissertations, whereas findings by Kahn (2013:72) indicate that the majority of respondents often read the whole e-book. Similarly, Moldre (2014:110) found that e-book readers in Estonia do not have issues with reading long passages because they do not only read content but also read Estonian classic literature and works by present-day Estonian writers. They view this as an opportunity to promote and access the national literature.

However, findings of this study indicate that most of the respondents occasionally read a chapter from an e-book, as reflected in section 4.7.2. Hoseth and McLure (2012:280) attest that most users simply dip in and out of e-books rather than reading a whole chapter or section. Kahn (2013:72), on the contrary, found that the majority of respondents usually read a whole chapter at a time. Findings of this study also indicate that most of the respondents, also occasionally read excerpts from an e book, as reflected in section 4.7.3. Kahn (2013:73) also found that a large majority of respondents read paragraphs when searching for important information. Staiger (2012:357) confirms this finding by stating that "...members of academic community do not read e-books in full... instead, they use them as convenient sources from which to extract information for their scholarly endeavors". These findings confirm that most respondents of this study use e-books for finding relevant content only (as reflected in section 4.4.7).

## **5.9 Discussion of the findings about how to increase usage**

Respondents recommended the following strategies that can help to improve the usage of e-books:

(a) "What can the Library do to make you more aware of available/new e-books?"

Most of the respondents recommended that they be made aware via e-mail notifications, as reflected in section 4.8 (a) (i). This implies that though most of the

respondents became aware through library e-resources, as reflected in section 4.3.2, nevertheless these respondents find e-mails to be the most effective method of creating awareness. However, Ashcroft (2011:399) mentioned that faculty came to know about e-books through library-subscribed databases and Worldcat. Ashcroft (2011) and Hoseth and McLure (2012) highlight that only a few users became aware of the availability of e-books through librarians, libraries' surveys and libraries' websites.

(b) "What can the Library do to meet your purposes for using e-books?"

Most of the respondents suggested that e-books should be made available when users need them, as reflected in section 4.8(b). This finding implies that it is crucial to ensure that e-books are available 24/7. At the Unisa Library e-books are made available 24/7, except during down times, but users are notified in advance if there will be scheduled downtimes. Connectivity has a role to play. Hence, connection on/off campus was rated "very important", as reflected in section 4.4.9 (a). Staiger (2012:360) attest that some respondents perceive that availability is not necessarily an advantage because it depends on connectivity. On the contrary, Jamali et al (2009) found that respondents were satisfied with the 24/7 availability of e-books.

(c) "What the Library can do to encourage you to use e-books?"

The majority suggested that e-books should be relevant to users. Relevancy to the curriculum was rated as "very important", as reflected in section 4.4.9(c), although in section 4.5(i) most of the respondents disagreed that irrelevance to curriculum was their reason for not using e-books. This recommendation could imply that respondents desire that e-books be relevant to their curriculum. On the contrary, findings by Shelbourne (2009: 64) and Ramaiah (2012:86) reveal that e-book users find e-books irrelevant to their curriculum.

(d) "What can the Library do to make e-books more accessible?"

Access restrictions on the number of simultaneous users was mentioned by most of the respondents as one of the reasons for not using e-books, as reflected in section 4.5 (k). This seems to be a concern because most of the respondents recommended that they be made accessible to many readers, as reflected in section 4.8(d). Hoseth

and McLure (2012:282) confirm this finding by stating that students and faculty at Colorado State University Libraries showed a strong desire for e-books to allow simultaneous access by multiple individuals. However, Unisa Library Collection Developers always try to meet this need (as stated in section 5.6(k) above). Ashcroft (2009:401) elaborates that users who can access e-books at the same time at Liverpool John Moores University in the UK are dependent on what that the academic library can afford in terms of subscriptions. Soules (2009) mentions the number of simultaneous users who can access an e-book as one of the restrictions of using e-books (as stated in section 2.3.4 above). On the contrary, according to Jamali et al (2009:39), simultaneous access by multiple users was perceived by academics in the UK as one of the advantages of using e-books.

### **5.10 Summary of chapter 5**

The chapter discussed the findings that were presented in chapter 4. The discussion of the findings was based on the study's objectives, which were stated in chapter 1. Academic staff's level of awareness of e-books was determined as well as on relevant literature reviewed. The frequency with which academic staff use e-books was established. The use to which academic staff in the CHS put e-books was determined. The reasons for low usage of e-books by academic staff in the CHS was also determined.

The next chapter presents a summary of the findings, conclusions and recommendations of the study.

## **CHAPTER 6**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS OF THE STUDY**

#### **6.1 Introduction**

This study introduced e-books, paying attention to their origin and development. It revealed that their existence dates back to the 1960s and that they are continuously being developed with regard to their accessibility and availability. This study contributes towards the scientific body of knowledge on the use and acceptance of e-books by academics. The contextual setting of this study was the College of Human Sciences (CHS) at Unisa.

E-learning and e-books are gradually introduced by Unisa as suitable material for teaching and learning. CHS library users are expected to show a high usage rate of e-books because they do a lot of reading. However, the January to December 2012 e-book collections usage statistics report on this college shows low usage. The system cannot reveal specific library users who accessed e-books because it is authenticated, but academic staff are the ones who play a major role in the development of the collection at the Unisa Library. The research presented in this study therefore, becomes crucial in determining the usage rate by academic staff in the CHS. The usage statistics consequently help the Library to provide its clients with a focused e-book collection.

The aim of this study was to establish how academic staff perceive usage of e-books, especially in their core business of teaching and research. An assessment of this usage would assist the Library to invest in a more focused e-book collection. The objectives of the study were to:

1. determine if academics in the College of Human Sciences are aware of e-books, especially within the Unisa Library;
2. establish the frequency with which e-books are used by Unisa academics in the College of Human Sciences;
3. determine the use to which academics in the College of Human Sciences put e-books;

4. determine the reasons for the low e-book usage rate in the College of Human Sciences;
5. recommend strategies that can be used to increase the use of e-books by academics in the College of Human Sciences.

The study employed the quantitative methodology approach, which enabled the researcher to convert the responses into statistical data. Data were collected from 165 academic staff members, using a questionnaire. The study used both primary and secondary data. Primary data were obtained from respondents, while secondary data were obtained from the literature. The SPSS statistical package was used to analyse data, which were descriptively analysed and interpreted. This chapter presents the summary of findings, conclusions and recommendations.

## **6.2 Summary of findings**

The findings are summarised based on the research questions of the study.

### **6.2.1 Summary of the findings on awareness about e -books**

The first research question was about the extent to which academics in the College of Human Sciences were aware of the availability of e-books at the Unisa Library. The study revealed that the majority of academic staff in the CHS are indeed aware of e-books and e-book services that the Library provides. It was also revealed that many of the academic staff became aware of e-books through the Library's e-resources database, which is a collection of e-book services such as Springer, Taylor and Francis (refer to chapter 5 section 5.3 for the full list of services). The e-book database and e-services therein are important because they expose the academics to a wide variety of e-books. The study further found that Taylor and Francis is the most well-known of the e-book services. As mentioned in the contextual setting (Chapter 1, section 1.2.2), the Library provides e-books awareness service to academic staff during departmental meetings to constantly update them of new developments in the Library. The Library also places e-book packages on departmental LibGuides and the Library also advertise new packages of e-books in the library catalogue.

Despite the constant efforts to ensure departmental awareness, there are some academics who are still not aware of the e-books. This could be attributed in part to their non-attendance of the departmental meetings. Furthermore, it was also revealed that many of the e-book services, such as Springer, Cambridge Companion Online, Emerald E-books, Emerald Social Sciences E-books, De Gruyter Online E-books, Brill E-books Collection, MyLibrary E-Books collection, Ebrary, Ebsco, Sage and Routledge, are known by very few academics. This limited and unsatisfactory awareness of e-books is regrettable, considering the investment that the Unisa Library is putting into e-books, as well as the fact that e-books are increasingly emerging as important sources for teaching and learning.

#### 6.2.2 Summary of the findings on whether academics use e-books?

The second research question was about whether or not academics in the College of Human Sciences use e-books. The study revealed that the majority of academic staff in the CHS do use e-books but that only a few prefer e-books to print-books. With regard to the frequency of use, the study revealed that most academics only use e-books occasionally and that they often use the e-books for study, teaching, and all purposes, but only occasionally do the academics use e-books for preparing course readings. Interestingly also, most academics rarely read the e-book in its entirety, as only a few averred to have read the whole e-book often. In most cases, academics focus on a chapter or excerpts from an e-book.

The study also revealed that the most used e-book service is Taylor and Francis, with less usage of other e-book services such as Springer, Cambridge Companion Online, Emerald E-books, Emerald Social Sciences E-books, De Gruyter Online E-books, Brill E-books Collection, MyLibrary E-books Collection, Ebrary, Ebsco, Sage and Routledge.

The study further revealed that there are some academics who never use e-books for the purpose of study, teaching or preparing course readings and that there are some academic staff who do not use e-books at all. Considering the amount of funds expended on the acquisition and licensing of e-books and the fact that e-learning is the future of Unisa, this was an astounding finding.

#### 6.2.3 Summary of the findings on how academics use e-books?

The third research question focussed on how academics in the College of Human Sciences currently access and use e-books for academic purposes? This question focussed on four different aspects, i.e. the devices used, the features of e-books, the purpose for which academics use e-books and the reasons, if any, for low usage. The findings on each of these are provided below.

#### 6.2.3.1 Summary of the findings in electronic devices used for e-books

The study revealed that the majority of those academics who use e-books access the e-books using laptops. This is not surprising because Unisa provides academics with this device to enable them do their daily tasks, which include accessing information that meets their academic needs anywhere and anytime. The use of laptops for accessing e-books leads to unhappiness among academics as these laptops are too strenuous to the eyes. Regrettably, cell phones, e-readers and tablets, etc., are only used by a few academics mainly because Unisa does not provide academics with such devices as yet. This is a limitation, considering that some of these devices, e.g. e-reader, tablet, are designed specifically for reading electronic books.

#### 6.2.3.2 Summary of the findings on features of e-books

Academics have a huge interest in the features that e-books offer. This is derived from the fact that academics ranked the level of importance of e-book features such as connectivity, accessing e-books anytime of the day or night (as discussed in Chapter 5, section 5.5) as very important, although there are still some academics who do not find these e-book features important (as mentioned in Chapter 5, section 5.5), which could be an indication of a lack of understanding of the advantages that come with these features.

#### 6.2.3.3 Summary of the findings on the purpose of use

The study showed that conducting research was the reason most of the academics in the CHS use e-books. With regard to the adequacy of the e-book collection, the majority of academics indicated that they find the e-book collection adequate for their research needs. It is therefore not surprising that the majority of academics use e-books for relevant content only, reading a few paragraphs and paging through here and there. Hence, only a few academics read the whole e-book.

In support of Unisa as an open, distance and e-learning (ODeL) university, the Unisa Library endeavours to purchase e-books whenever feasible. However, not all print-books are available as e-books. Publishers increasingly make their recent publications available as e-books, but older books are often available only in printed form, not in e-format. Publishers also tend to make textbooks available as print-books only or as e-books for single download to a single device only (i.e. for purchase by individuals, not libraries). These factors affect the range of e-books that the Unisa Library is able to purchase.

The study showed that e-books are least used for the purpose of teaching and preparing course readings (as discussed in Chapter 5, section 5.4.3) and that most academic staff do not prescribe e-books as textbooks for their students. The reason behind this could be that e-books are not yet in the mainstream of teaching and learning at Unisa. This is unfortunate because Unisa is moving towards e-learning, which involves delivering teaching with the help of electronic resources, of which e-books forms part. The lack of the required textbooks in e-book format is thus a drawback in terms of e-learning.

#### 6.2.4 Summary of the findings on reasons for low usage

The fourth research question was: what are the reasons why academic staff do not use e-books? It was vital to examine the reasons for low usage in order for the Library to make informed decisions when purchasing e-books. As indicated in 6.2.3.2 above the study revealed that features of e-books are considered important by academics. Some of the features that the majority of academic staff valued the most were content presentation, relevance to curriculum, etc. (as mentioned in Chapter 5 section 5.5). However, the study found that academics are not satisfied because there are some drawbacks with regard to content presentation in that different publishers have different interfaces (platforms) for their e-books. The different interfaces result in a non-standard look and readers of e-books are compelled to learn the intricacies of different interfaces, with some interfaces being more user-friendly than others.

The layout, display and functionality of e-books are also not the same on different devices e.g. laptops, e-readers and cellphones. This is a dilemma for the few academics who use different devices to access e-books, hence most of them

regarded this as their reason for not using e-books (as reflected in Chapter 5, section 5.6).

Books relevant to the curriculum are also not necessarily available as e-books. The Library can only purchase an e-format of a book when it is available. As a result, there are a limited number of titles available in e-format. This leads to low usage of the e-format because these titles are insufficient to cover the curriculum. These are limiting factors when it comes to the adoption and usage of e-books (as mentioned in Chapter 5, section 5.6).

#### 6.2.5 Summary of the findings on increasing usage of e-books

The fifth research question enquired as to what the Unisa Library can do to increase the use of e-books by academics in the College of Human Sciences. The academics came up with some suggestions which are summarised as follows:

##### 6.2.5.1 Summary of the findings on how academics get to know about e-books

Most of the academics suggested that e-mail notification be the method used for creating awareness about new/available e-books. In addition, there were a few academics who suggested other methods, such as having the library send regular notification about new/available titles. The Library does alert academics immediately after being notified by cataloguers when a particular e-book package is accessible. However, the Library currently has no standard method of creating awareness. Some academics suggested receiving information about available e-books via Personal Librarians, which the Library is already doing, as mentioned in the contextual setting (Chapter 1, section 1.2.2), that a link with new/available titles be put on the website and that a website specifically for the new titles be created. Furthermore, some suggested that advertisement be put on the library website, which the Library does but in a slightly different manner, by advertising new e-books on the e-resources option itself on the library catalogue, as mentioned in the contextual setting (Chapter 1, section 1.2.2). It could be that academics would find this notice more visible on the library website. Conducting training and workshops was also mentioned as one of the suggestions.

##### 6.2.5.2 Summary of the findings on what can encourage academics to use e-books?

The majority of academics suggested that e-books should be relevant to users as this was one of the aspects that academics valued highly (as mentioned in Chapter 5, section 5.5). The Library is guided by subject profiles/subject guides, tutorial letters and the curriculum when ordering e-books. What is appealing is that some academics suggested that all new books ordered be in the electronic format, especially those that are in demand. The challenge however, is that not all books are in an electronic format as outlined in section 6.2.3.3. It should be acknowledged that an increase in e-books collection has the potential to improve the e-book usage rate, provided that awareness and availability is increased as per some of the suggestions.

#### 6.2.5.3 Summary of the findings on access to the e-book collection

The study revealed that the majority of academics suggested that e-books should be accessible to many users. It should be noted that, although the Library always selects the multiple-user model (as mentioned in Chapter 2, section 2.3.6), their decision relies on the licensing model of that particular title; some titles are only available on a single-user or limited-user model. In addition, academics suggested that e-books should be accessible anytime and anywhere, hence this feature was rated as very important by the majority of academics (as reflected in Chapter 5, section 5.5). Notably, some of the academics came up with the suggestion that they need to be given access rights to e-books on and off-campus and not be restricted to using them on campus only. Additionally, academics suggested that a manual should be made available to help students learn how to access e-books. Regrettably, it seems the investment that the Library is putting into e-books goes to waste because academics cannot use e-books if they do not know how to access them.

#### 6.2.5.4 Summary of the findings on e-books collection development

The majority of academics suggested that they should be consulted on which books to order. However, Personal Librarians do provide academics with a catalogue of newly available e-books to choose from. Consultation is therefore required if there are areas that are not covered in the e-book catalogue. Some suggested that more e-book titles be acquired on fantasy, fairy-tales and the Gothic, specific fields/subjects, e.g. new titles in Afrikaans, that a variety of titles be ordered and that the Library should subscribe as widely as possible to e-book lists. If a user finds a book on

another search engine like Google or Amazon, then there should be a link that will allow him/her to ask the Library to order that particular e-book. It should, however, be noted that e-book titles from suppliers such as Google and Amazon are encrypted for single download of an e-book to a single device so that they are able to manage their purchases. Some of the e-book titles are however not always available for purchase by libraries.

## **6.3 Conclusions**

The previous section summarised the findings of this study. This section draws conclusions based on each of the research objectives of this study.

### **6.3.1 Conclusion on the awareness about e-books**

The first objective of the study was to determine if academic staff in the College of Human Sciences are aware of e-books, especially within the Unisa Library. The study concludes that the majority of academics in the CHS are aware, but there are still a few that seem not to be aware. Lack of awareness of e-books by academics poses a problem because all academics need to be aware so that they can use e-books if they are to keep with the e-learning trends.

### **6.3.2. Conclusion on the frequency with which e-books are used**

The second objective of the study was to establish the frequency with which e-books are used by Unisa academics in the College of Human Sciences. The study concludes that academics only “occasionally” use e-books with only a few who use e-books very often but, most worryingly, there are still a few who never use e-books. This latter plus the occasional use of e-books by academics are a problem because they contribute to the overall low usage rate and also suggests that some academics are not transitioning into e-learning as expected.

### **6.3.3. Conclusion on how academics use e-books**

The third objective of the study was to determine the use to which academics in the College of Human Sciences put e-books. The study concludes that the majority of the academics:

6.3.3.1 use laptops to access e-books because this is the device which is readily available to them. Devices which are designed specifically for reading electronic books, e.g. e-readers and tablets, are used by a few academics. The use of laptops to access e-books leads to unhappiness among academics as laptops according to them are strenuous to the eyes and uncomfortable to handle compared to the e-book readers.

6.3.3.2 find the features of e-books, such as downloading, and saving necessary and important, but there are still some academics who find them unnecessary, which could be a lack of understanding of the benefits that come with these e-book features.

6.3.3.3 use e-books for research because they are satisfied with the information they find for this purpose and only a few academics use e-books for the purpose of teaching. Based on these conclusions, this is a problem because Unisa is moving towards e-learning, whereby teaching should be delivered with the help of electronic resources.

#### 6.3.4. Conclusion on the reasons for low usage

The fourth objective of the study was to determine the reasons for the low usage rate. The study concludes that academics have a huge demand for content to be presented well in e-books. Furthermore, e-books should be relevant to the curriculum. Those academics that use different devices to access e-books indicated that the interface of e-books differs on different devices, i.e. it is not user friendly on some devices. Another critical element to the low usage is that there are a limited number of titles available in e-format, which results in academics using what is readily available.

#### 6.3.5 Conclusion on the strategies to increase the use of e-books

The fifth objective of the study was to recommend strategies that can be used to increase the use of e-books by academics in the College of Human Sciences.

##### 6.3.5.1 Awareness of e-books

The study concludes that academics prefer to get to know about available/new e-books via email, but in addition, a few academics suggested receiving information via

Personal Librarians, which is one of the methods that is currently being used. This is a problem because this clearly indicates that the method of using Personal Librarians is not effective.

#### 6.3.5.2 What will encourage academics to use e-books?

The study concludes that what will encourage academics to use e-books is relevancy to users as well as the availability of an e-book version of every print-book version.

#### 6.3.5.3 Access to the e-book collection

The study further concludes that the majority of academics would like to have simultaneous access to e-books anytime of the day. This is also a problem because such access depends on whether that particular title is available on a multiple user model or only on a single-user or limited-user model. The study also concludes that the suggestion of training students on how to access e-books could be an indication that academics are not comfortable using e-books for teaching because they are not certain if students know how to access e-books. This poses a problem because academics will then not recommend e-books to students.

#### 6.3.5.4 E-books collection development

The study concludes that academics need to be consulted during the e-book ordering process for more e-book titles be added on fiction and other subjects and that they should also be allowed to recommend e-books from other search engines. These suggestions are an indication that academics do not find e-books that meets their purpose, which contributes to low usage.

### **6.4 Recommendations**

Based on the findings and conclusions of the study, the researcher therefore recommends the following in order to improve the usage of e-books:

#### 6.4.1 Recommendations on the awareness about e books

In response to the conclusion reached, the study recommends that, for the few academics who are not aware of e-books and e-book services, the Unisa Library should make further efforts to ensure that all academics become aware of e-books

and e-book services. The study suggests that e-mail notification to all academics be the main method of raising awareness of the availability of e-book collections in the Unisa Library. This is because the e-mail facility is one of the fast and convenient methods of communication used by respondents. In this way, the academics cannot miss the information about the availability e-books, as well as the training and workshop opportunities in the Unisa Library.

The study also recommends that the Library considers marketing strategies such as the distribution of flyers in departmental and/or college meetings and advertising in newsletters and on college or departmental Facebook pages.

#### 6.4.2 Recommendations on the frequency with which e-books are used

In response to the conclusion reached, it is clear that the main problem is that most academics still prefer print-books to e-books. The study therefore recommends that Personal Librarians educate academics about the benefits of using e-books.

#### 6.4.3 Recommendations on how e-books are used

In response to how e-books are used, it is clear that academics are not using e-book readers which are the actual devices designed for reading e-books but use other devices such as laptops and personal computers. E-book readers are advantageous when one spends a considerable amount of time reading an e-book, as it avoids eye-strain, which is what most academics are unhappy about (as reflected in Chapter 5, section 5.6). The study recommends that devices such as e-readers and tablets be made available to academics in order to stimulate interest in using e-books.

##### 6.4.3.1 Recommendations on the purpose of using e-books

To conclude on the purpose of using e-books, it is clear that publishing of e-books is in a developmental stage and as such most of the teaching material is still in print form. It is therefore recommended that more e-titles be added for the purpose of e-teaching. The study recommends that academics in collaboration with the Library should take a keen interest in identifying the gaps in the collection and recommending titles that should be added to collection to enable the Library to fill those gaps.

##### 6.4.3.2 Recommendations on the availability of electronic copy

The study recommend that the Library should liaise with publishers so that as soon as the print-book is available, the electronic version is also readily available, in order to add more titles in electronic format.

#### 6.4.4 Recommendations on the reasons for low usage

In response to the conclusion of the study, it is clear that the interface when reading e-books on different devices is not user-friendly and that contributes to low usage of e-books. It is therefore recommended that the Library gives feedback to publishers regarding improvement of the e-book interface to make the interface more user-friendly and so increase the usage rate.

#### 6.4.5 Recommendations on the strategies to increase the use of e-books

In response to the conclusion of the study, it is clear that academics have some uncertainties as to whether students know how to access e-books. The study recommends that the Library put the option on how to access e-books separately from the frequently asked questions on the library website so that it is immediately visible.

##### 6.4.5.1 E book restrictions

In response to the conclusion of the study regarding simultaneous access, the study recommends that academics are made aware about the e-book restrictions that are inevitable so that they know what to expect.

### **6.5 Summary of chapter 6**

This chapter summarised the findings, provided conclusions based on the findings and made recommendations about usage of e-books by academic staff in the CHS at Unisa. The study was successful in establishing how academic staff in the CHS perceive the usage of e-books, especially in their core -business of teaching and research, in order for the Library to invest in a focused e-book collection. The information gathered will enable the Library to provide academics with e-books that meet their needs. The researcher believes that this will in turn improve the usage rate of e-books.

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## APPENDIX A: LETTER TO THE PARTICIPANTS

Dear Participant

My name is Celiwe Virginia Mdhluli, I am doing Masters in Information Science with my supervisor Professor M. K. Minishi-Majanja the school director of Arts in the College of Human Sciences at the University of South Africa. We are inviting you to participate in a study entitled “**Use of e-books: perceptions of academic staff in the College of Human Sciences at University of South Africa**”. The Research Permission was granted by UNISA Senate Research, Innovation, Postgraduate Degrees and Commercialisation Committee (SRIPCC).

The aim of the study to establish the perception of academics in the College of Human Sciences on the use of e-books, especially in their core business of teaching and research in order to invest in a well-directed e book collection.

Your college has been selected because you belong in a College that solely depends on reading books in your teaching and doing research.

The study will entail quantitative approach with open-ended questions. The researcher will inform the Chairs of the CHS about conducting a study that involves academic staff in their departments. **You will be given a period of 10 days to fill in the questionnaire.**

There are no benefits to participation in the study. There are no potential risks Please give your formal consent to participation by clicking on the SurveyMonkey link inserted below. (you may withdraw your participation any time before submitting).

LINK TO QUESTIONNAIRE

<https://www.surveymonkey.com/r/HG3BFPS>

If you would be interested in greater detail, an electronic copy (e.g. PDF) of the entire dissertation can be made available to you.

Your sincerely

Celiwe Virginia Mdhuli

Samuel Pauw 2-2

Department of Library Services

012 429 4091

Email: [mdhlucv@unisa.ac.za](mailto:mdhlucv@unisa.ac.za)

## APPENDIX B: QUESTIONNAIRE

# Use of Ebooks by Academic Staff in the College of Human Sciences at the University of South Africa

### 1. Age category

- 20-29 years
- 30-39 years
- 40-49 years
- 50-59 years
- 60 years or older

### 2. Gender

- Male
- Female

### 3. What is your department? e.g, Communication Sciences

### 4. Position

- Professor
- Associate Professor
- Senior Lecturer
- Lecturer
- Other (please specify)

## PART II

### 5. Are you aware of the availability of e-books in the Unisa Library? (Please select one option: if you are aware, then answer q6-24, If not aware, skip to q 23

- Yes
- No

### 6. How did you become aware of e-books? You may choose more than one from the list below)

- Library e-resources database
- Google (including Google Book Search)

From scholarly journals publications

Other (please specify)

**7. Which of the following e-book services are you aware of? (Select one option per line. You may choose more than one from the list below)**

Brill e-books Collection

Cambridge Companion Online

De Gruyter Online E-books

Ebrary

Emerald E-Books series

Emerald Social Sciences E-books

MyiLibrary E-books

Springer E-Journal and E-books

Taylor and Francis E-books

Wiley Online Books

Other (please specify)

### **PART III**

**8. Do you use e-books?**

yes

no

**9. If printed and electronic copy is available, which one would you prefer?**

Print book

e-book

It depends (please specify)

**10. Which of the following e-book services have you used? You may choose more than one from the list below)**

Brill e-books

Cambridge Companion Online

De Gruyter Online E-books

Ebrary

Emerald E-Books series

- Emerald Social Sciences E-books
- MyiLibrary E-books
- Springer E-Journal and E-books
- Taylor and Francis E-books
- Wiley Online Books
- Other (please specify)

\* 11. For what purpose do you use e-books? You may choose more than one from the list below)

- Preparation of course readings
- Teaching
- Research
- Study
- Leisure
- All of the above
- Other (please specify)

\* 12. Do you prescribe e-books as textbooks for your students?

- yes
- no
- Other (please specify)

\* 13. Do you find e-book collection available at Unisa library to be adequate for your teaching and research requirements?

- Adequacy
- Teaching
- Research

\* 14. Which of the following statements best describes how you use e-books?

- For fact-finding, I use e-books for searching a specific piece of information
- For relevant content only, I only read a few paragraphs, and page through here and there
- I read the whole chapter at once
- I read the whole e-book

Other (please specify)

\* 15. Which devices do you use to gain access to e-books (Select more than one option)

- Home desktop computer
- Laptop
- Tablet
- Cell phone
- E-reader (e.g. Kindle, Sony reader etc.)
- Other (please specify)

\* 16. Indicate importance you attach to the following e-book features

	Not Important at all	Little Importance	Average Importance	Very Important	Absolutely Essential	Not Applicable
Connection (on campus or off campus)	<input type="checkbox"/>					
Access e-books anytime of the day or	<input type="checkbox"/> Access e-books anytime of the day or	<input type="checkbox"/> Access e-books anytime of the day or	<input type="checkbox"/> Access e-books anytime of the day or	<input type="checkbox"/> Access e-books anytime of the day or	<input type="checkbox"/> Access e-books anytime of the day or	<input type="checkbox"/> Access e-books anytime of the day or

	Not Important at all	Little Importance	Average Importance	Very Important	Absolutely Essential	Not Applicable
the day or night	night	night	night	night	night	night
	Not Important at all	Little Importance	Average Importance	Very Important	Absolutely Essential	Not Applicable
Relevance to curriculum	<input type="checkbox"/> Relevance to curriculum Not Important at all	<input type="checkbox"/> Relevance to curriculum Little Importance	<input type="checkbox"/> Relevance to curriculum Average Importance	<input type="checkbox"/> Relevance to curriculum Very Important	<input type="checkbox"/> Relevance to curriculum Absolutely Essential	<input type="checkbox"/> Relevance to curriculum Not Applicable
Search the full text of e-books	<input type="checkbox"/> Search the full text of e-books Not Important at all	<input type="checkbox"/> Search the full text of e-books Little Importance	<input type="checkbox"/> Search the full text of e-books Average Importance	<input type="checkbox"/> Search the full text of e-books Very Important	<input type="checkbox"/> Search the full text of e-books Absolutely Essential	<input type="checkbox"/> Search the full text of e-books Not Applicable
Browsing e-book text	<input type="checkbox"/> Browsing e-book text Not Important at all	<input type="checkbox"/> Browsing e-book text Little Importance	<input type="checkbox"/> Browsing e-book text Average Importance	<input type="checkbox"/> Browsing e-book text Very Important	<input type="checkbox"/> Browsing e-book text Absolutely Essential	<input type="checkbox"/> Browsing e-book text Not Applicable
Ability to download the text	<input type="checkbox"/> Ability to download the text Not Important at all	<input type="checkbox"/> Ability to download the text Little Importance	<input type="checkbox"/> Ability to download the text Average Importance	<input type="checkbox"/> Ability to download the text Very Important	<input type="checkbox"/> Ability to download the text Absolutely Essential	<input type="checkbox"/> Ability to download the text Not Applicable
Copy and paste text from e-books	<input type="checkbox"/> Copy and paste text from e-books Not	<input type="checkbox"/> Copy and paste text from e-	<input type="checkbox"/> Copy and paste text from e-books	<input type="checkbox"/> Copy and paste text from e-	<input type="checkbox"/> Copy and paste text from e-books	<input type="checkbox"/> Copy and paste text from e-

	Not Important at all	Little Importance	Average Importance	Very Important	Absolutely Essential	Not Applicable
	Important at all	books Little Importance	Average Importance	books Very Important	Absolutely Essential	books Not Applicable
Downloadin g e-books into another device	<input type="checkbox"/> Downloadin g e-books into another device Not Important at all	<input type="checkbox"/> Downloadin g e-books into another device Little Importance	<input type="checkbox"/> Downloadin g e-books into another device Average Importance	<input type="checkbox"/> Downloadin g e-books into another device Very Important	<input type="checkbox"/> Downloadin g e-books into another device Absolutely Essential	<input type="checkbox"/> Downloadin g e-books into another device Not Applicable
Content presentatio n	<input type="checkbox"/> Content presentatio n Not Important at all	<input type="checkbox"/> Content presentatio n Little Importance	<input type="checkbox"/> Content presentatio n Average Importance	<input type="checkbox"/> Content presentatio n Very Important	<input type="checkbox"/> Content presentatio n Absolutely Essential	<input type="checkbox"/> Content presentatio n Not Applicable
Read e- books as PDFs	<input type="checkbox"/> Read e- books as PDFs Not Important at all	<input type="checkbox"/> Read e- books as PDFs Little Importance	<input type="checkbox"/> Read e- books as PDFs Average Importance	<input type="checkbox"/> Read e- books as PDFs Very Important	<input type="checkbox"/> Read e- books as PDFs Absolutely Essential	<input type="checkbox"/> Read e- books as PDFs Not Applicable
Read e- books as web pages	<input type="checkbox"/> Read e- books as web pages Not Important at all	<input type="checkbox"/> Read e- books as web pages Little Importance	<input type="checkbox"/> Read e- books as web pages Average Importance	<input type="checkbox"/> Read e- books as web pages Very Important	<input type="checkbox"/> Read e- books as web pages Absolutely Essential	<input type="checkbox"/> Read e- books as web pages Not Applicable
Read e- books in any/all available format/s	<input type="checkbox"/> Read e- books in any/all available format/s Not Important at all	<input type="checkbox"/> Read e- books in any/all available format/s Little Importance	<input type="checkbox"/> Read e- books in any/all available format/s Average Importance	<input type="checkbox"/> Read e- books in any/all available format/s Very Important	<input type="checkbox"/> Read e- books in any/all available format/s Absolutely Essential	<input type="checkbox"/> Read e- books in any/all available format/s Not Applicable
Ease of use when	<input type="checkbox"/> Ease of use when	<input type="checkbox"/> Ease of use when	<input type="checkbox"/> Ease of use when	<input type="checkbox"/> Ease of use when	<input type="checkbox"/> Ease of use when	<input type="checkbox"/> Ease of use when

	Not Important at all	Little Importance	Average Importance	Very Important	Absolutely Essential	Not Applicable
reading multiple copies at the same time	reading multiple copies at the same time Not Important at all	reading multiple copies at the same time Little Importance	reading multiple copies at the same time Average Importance	reading multiple copies at the same time Very Important	reading multiple copies at the same time Absolutely Essential	reading multiple copies at the same time Not Applicable
Making notes in e-books	<input type="checkbox"/> Making notes in e-books Not Important at all	<input type="checkbox"/> Making notes in e-books Little Importance	<input type="checkbox"/> Making notes in e-books Average Importance	<input type="checkbox"/> Making notes in e-books Very Important	<input type="checkbox"/> Making notes in e-books Absolutely Essential	<input type="checkbox"/> Making notes in e-books Not Applicable
Highlighting in e-books	<input type="checkbox"/> Highlighting in e-books Not Important at all	<input type="checkbox"/> Highlighting in e-books Little Importance	<input type="checkbox"/> Highlighting in e-books Average Importance	<input type="checkbox"/> Highlighting in e-books Very Important	<input type="checkbox"/> Highlighting in e-books Absolutely Essential	<input type="checkbox"/> Highlighting in e-books Not Applicable
Bookmarking in e-books	<input type="checkbox"/> Bookmarking in e-books Not Important at all	<input type="checkbox"/> Bookmarking in e-books Little Importance	<input type="checkbox"/> Bookmarking in e-books Average Importance	<input type="checkbox"/> Bookmarking in e-books Very Important	<input type="checkbox"/> Bookmarking in e-books Absolutely Essential	<input type="checkbox"/> Bookmarking in e-books Not Applicable
Printing out chapters from e-books	<input type="checkbox"/> Printing out chapters from e-books Not Important at all	<input type="checkbox"/> Printing out chapters from e-books Little Importance	<input type="checkbox"/> Printing out chapters from e-books Average Importance	<input type="checkbox"/> Printing out chapters from e-books Very Important	<input type="checkbox"/> Printing out chapters from e-books Absolutely Essential	<input type="checkbox"/> Printing out chapters from e-books Not Applicable
Portability	<input type="checkbox"/> Portability Not Important at all	<input type="checkbox"/> Portability Little Importance	<input type="checkbox"/> Portability Average Importance	<input type="checkbox"/> Portability Very Important	<input type="checkbox"/> Portability Absolutely Essential	<input type="checkbox"/> Portability Not Applicable

**PART IV**

\* 17. Which of the following are your reasons for not using e-book (Please indicate on a 5 point scale from “Strongly disagree” to “Strongly agree” )

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
Lack of awareness	<input type="radio"/> Lack of awareness Strongly disagree	<input type="radio"/> Lack of awareness Disagree	<input type="radio"/> Lack of awareness Neither	<input type="radio"/> Lack of awareness Agree	<input type="radio"/> Lack of awareness Strongly agree
I do not know where to find e-books	<input type="radio"/> I do not know where to find e-books Strongly disagree	<input type="radio"/> I do not know where to find e-books Disagree	<input type="radio"/> I do not know where to find e-books Neither	<input type="radio"/> I do not know where to find e-books Agree	<input type="radio"/> I do not know where to find e-books Strongly agree
Simply prefer print	<input type="radio"/> Simply prefer print Strongly disagree	<input type="radio"/> Simply prefer print Disagree	<input type="radio"/> Simply prefer print Neither	<input type="radio"/> Simply prefer print Agree	<input type="radio"/> Simply prefer print Strongly agree
I am used to reading print I do not want to change	<input type="radio"/> I am used to reading print I do not want to change Strongly disagree	<input type="radio"/> I am used to reading print I do not want to change Disagree	<input type="radio"/> I am used to reading print I do not want to change Neither	<input type="radio"/> I am used to reading print I do not want to change Agree	<input type="radio"/> I am used to reading print I do not want to change Strongly agree
Reading from the screen is eye straining	<input type="radio"/> Reading from the screen is eye straining Strongly disagree	<input type="radio"/> Reading from the screen is eye straining Disagree	<input type="radio"/> Reading from the screen is eye straining Neither	<input type="radio"/> Reading from the screen is eye straining Agree	<input type="radio"/> Reading from the screen is eye straining Strongly agree

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
Interface of e-books differ in different devices	<input type="radio"/> Interface of e-books differ in different devices Strongly disagree	<input type="radio"/> Interface of e-books differ in different devices Disagree	<input type="radio"/> Interface of e-books differ in different devices Neither	<input type="radio"/> Interface of e-books differ in different devices Agree	<input type="radio"/> Interface of e-books differ in different devices Strongly agree
Lack internet connectivity when doing research in remote areas	<input type="radio"/> Lack internet connectivity when doing research in remote areas Strongly disagree	<input type="radio"/> Lack internet connectivity when doing research in remote areas Disagree	<input type="radio"/> Lack internet connectivity when doing research in remote areas Neither	<input type="radio"/> Lack internet connectivity when doing research in remote areas Agree	<input type="radio"/> Lack internet connectivity when doing research in remote areas Strongly agree
Downloading is slow	<input type="radio"/> Downloading is slow Strongly disagree	<input type="radio"/> Downloading is slow Disagree	<input type="radio"/> Downloading is slow Neither	<input type="radio"/> Downloading is slow Agree	<input type="radio"/> Downloading is slow Strongly agree
Irrelevance to the curriculum	<input type="radio"/> Irrelevance to the curriculum Strongly disagree	<input type="radio"/> Irrelevance to the curriculum Disagree	<input type="radio"/> Irrelevance to the curriculum Neither	<input type="radio"/> Irrelevance to the curriculum Agree	<input type="radio"/> Irrelevance to the curriculum Strongly agree
Limited number of titles available	<input type="radio"/> Limited number of titles available Strongly	<input type="radio"/> Limited number of titles available Disagree	<input type="radio"/> Limited number of titles available Neither	<input type="radio"/> Limited number of titles available	<input type="radio"/> Limited number of

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
titles available				Agree	Strongly agree
Access restrictions on number of users	<input type="radio"/> Access restrictions on number of users Strongly disagree	<input type="radio"/> Access restrictions on number of users Disagree	<input type="radio"/> Access restrictions on number of users Neither	<input type="radio"/> Access restrictions on number of users Agree	<input type="radio"/> Access restrictions on number of users Strongly agree
Hard to browse	<input type="radio"/> Hard to browse Strongly disagree	<input type="radio"/> Hard to browse Disagree	<input type="radio"/> Hard to browse Neither	<input type="radio"/> Hard to browse Agree	<input type="radio"/> Hard to browse Strongly agree
Inability to open multiple copies at once	<input type="radio"/> Inability to open multiple copies at once Strongly disagree	<input type="radio"/> Inability to open multiple copies at once Disagree	<input type="radio"/> Inability to open multiple copies at once Neither	<input type="radio"/> Inability to open multiple copies at once Agree	<input type="radio"/> Inability to open multiple copies at once Strongly agree
E-books reduce control over plagiarism and increase copyright concerns	<input type="radio"/> E-books reduce control over plagiarism and increase copyright concerns Strongly disagree	<input type="radio"/> E-books reduce control over plagiarism and increase copyright concerns Disagree	<input type="radio"/> E-books reduce control over plagiarism and increase copyright concerns Neither	<input type="radio"/> E-books reduce control over plagiarism and increase copyright concerns Agree	<input type="radio"/> E-books reduce control over plagiarism and increase copyright concerns Strongly agree
In ability to make notes	<input type="radio"/> In ability to make notes Strongly disagree	<input type="radio"/> In ability to make notes Disagree	<input type="radio"/> In ability to make notes Neither	<input type="radio"/> In ability to make notes Agree	<input type="radio"/> In ability to make notes Strongly agree

	Strongly disagree	Disagree	Neither	Agree	Strongly agree
Inability flag pages for future reference	<input type="radio"/> Inability flag pages for future reference Strongly disagree	<input type="radio"/> Inability flag pages for future reference Disagree	<input type="radio"/> Inability flag pages for future reference Neither	<input type="radio"/> Inability flag pages for future reference Agree	<input type="radio"/> Inability flag pages for future reference Strongly agree
E books can be easily deleted accidentally	<input type="radio"/> E books can be easily deleted accidentally Strongly disagree	<input type="radio"/> E books can be easily deleted accidentally Disagree	<input type="radio"/> E books can be easily deleted accidentally Neither	<input type="radio"/> E books can be easily deleted accidentally Agree	<input type="radio"/> E books can be easily deleted accidentally Strongly agree
Restrictions on number of pages to be printed	<input type="radio"/> Restrictions on number of pages to be printed Strongly disagree	<input type="radio"/> Restrictions on number of pages to be printed Disagree	<input type="radio"/> Restrictions on number of pages to be printed Neither	<input type="radio"/> Restrictions on number of pages to be printed Agree	<input type="radio"/> Restrictions on number of pages to be printed Strongly agree

Other (please specify)

**PART V**

\* 18. Skip this section if you are not aware about the availability of e-books.]

How often do you read e-books?

- Never
- Rarely
- Occasionally
- Often
- Very Often

Question Title

\* 19. How frequently do you use e-books for the following purposes? (Please indicate on a 5-point scale from "Never" to "Very Often".)

	Never	Rarely	Occasionally	Often	Very often
Preparing course readings	<input type="radio"/> Preparing course readings Never	<input type="radio"/> Preparing course readings Rarely	<input type="radio"/> Preparing course readings Occasionally	<input type="radio"/> Preparing course readings Often	<input type="radio"/> Preparing course readings Very often
Study	<input type="radio"/> Study Never	<input type="radio"/> Study Rarely	<input type="radio"/> Study Occasionally	<input type="radio"/> Study Often	<input type="radio"/> Study Very often
Teaching	<input type="radio"/> Teaching Never	<input type="radio"/> Teaching Rarely	<input type="radio"/> Teaching Occasionally	<input type="radio"/> Teaching Often	<input type="radio"/> Teaching Very often
All purpose	<input type="radio"/> All purpose Never	<input type="radio"/> All purpose Rarely	<input type="radio"/> All purpose Occasionally	<input type="radio"/> All purpose Often	<input type="radio"/> All purpose Very often

**PART VI**

\* 20. Please indicate the frequency of your e-book usage pattern (Please indicate on a 5 point scale from "Never to "Very Often")

	Never	Rarely	Occasionally	Often	Very often
Whole e-book	<input type="radio"/> Whole e-book Never	<input type="radio"/> Whole e-book Rarely	<input type="radio"/> Whole e-book Occasionally	<input type="radio"/> Whole e-book Often	<input type="radio"/> Whole e-book Very often
Chapters from e-book	<input type="radio"/> Chapters from e-book Never	<input type="radio"/> Chapters from e-book Rarely	<input type="radio"/> Chapters from e-book Occasionally	<input type="radio"/> Chapters from e-book Often	<input type="radio"/> Chapters from e-book Very often
Excerpts from e-books	<input type="radio"/> Excerpts from e-books Never	<input type="radio"/> Excerpts from e-books Rarely	<input type="radio"/> Excerpts from e-books Occasionally	<input type="radio"/> Excerpts from e-books Often	<input type="radio"/> Excerpts from e-books Very often

**PART VII**

\* 21. What can the Library do to make you more aware about available/new e-books?

Question Title

\* 22. What can the Library do to meet your purpose for using e-books?

Question Title

\* 23. What can the Library do to encourage you to use e-books?

Question Title

\* 24. What can the Library do to make e-books more accessible to you?

DEPARTMENT OF INFORMATION SCIENCE RESEARCH  
ETHICS REVIEW  
COMMITTEE

Date: 4 May 2017

Ref #: 2017\_CVM\_47214317\_001

Name of applicant: CV Mdhuli

Student #:X

Staff #:

Dear CV Mdhuli,

**Decision: Ethics Approval**

**Name:** Title and name of principle applicant, address, e-mail address, and phone number

Ms CV Mdhuli, Unisa Information Science, [mdhlucv@unisa.c.za](mailto:mdhlucv@unisa.c.za) and 012 429 4091

**Proposal:** Use of e-books: perceptions of academic staff in the College of Human Sciences at the University of South Africa.

**Qualification:** Masters in Information Science

Thank you for the application for research ethics clearance by the Department of Information Science Research Ethics Review Committee for the above

**For full approval:** *The application was reviewed in compliance with the Unisa Policy on Research Ethics by the Department of Information Science Research Ethics Review Committee on 29 March 2017.*

*The proposed research may now commence with the proviso that:*

- 1) The researcher/s will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.*
- 2) Any adverse circumstance arising in the undertaking of the research project that is relevant to the ethicality of the study, as well as changes in the methodology, should be communicated in writing to the Department of information Science Ethics Review Committee. An amended application could be requested if there are substantial changes from the existing proposal, especially if those changes affect any of the study-related risks for the research participants.*



mentioned research. Final approval is granted for 4 years.

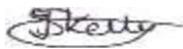
*3) The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the specific field of study.*

*Note:*

*The reference number 2017\_CVM\_47214317\_001 should be clearly indicated on all forms of communication [e.g. Webmail, E-mail messages, letters] with the intended research participants, as well as with the Department of Information Science RERC.*

Kind regards,

Signature



Dr Isabel Schellnack-Kelly

Department of Information Science

Research Ethics Review Committee

012 429 6936