



E-TEXTBOOK PREFERENCES: A CASE STUDY OF INFORMATION
TECHNOLOGY STUDENTS' PREFERENCES AT A PRIVATE HIGHER
EDUCATION INSTITUTION

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ABSTRACT

Textbooks can be defined as a printed and bound artefact that consists of certain idea or information about a particular topic. The debate between using printed textbooks (traditional) or e-textbooks (digital textbooks) is ongoing in the educational sector. Students are often required to buy textbooks in order to complete a course in the university, and this textbook can either be printed or e-textbook. Students who are usually reluctant to read a printed text or electronic texts are not familiar with the advantages and disadvantages of each text, respectively. Thus, the absence of information prompts the students to employ only one kind of text either digital or printed.

The purpose of this research was to investigate whether university students prefer printed textbooks or digital textbooks (e-textbooks). Through this research we will be able to discover the elements affecting the adoption of e-textbooks and printed textbooks and why university students prefer one to the other. The importance of the research is to understand why students are making the decision to use either traditional textbooks or e-textbooks and what makes them develop these preferences. The benefits that will be derived from this research will help illustrate what the students feel about traditional (printed) and e-textbooks (digital) and the choices that go into making that decision.

Data was collected from Pearson Institute undergraduate students via questionnaires. The study applied the mixed methods to analyse the relationship between perceived ease of use (PEOU), perceived usefulness (PU), attitude (ATT), complexity (CMX) and compatibility (CMP) on Behavioural intention to use. A final number of 80 responders were used as the research sample.

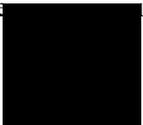
Findings from the study revealed evidence that Perceived usefulness impacts Behavioural intent to use e-textbooks, Perceived usefulness impacts attitude to use e-textbooks, Perceived ease of use affects Behavioural intent to use e-textbooks, Perceived ease of use affects Perceived usefulness to use e-textbooks, Perceived ease of use affects attitude to use e-textbooks, Attitude affects Behavioural intent to use e-textbooks., Compatibility impacts Behavioural intent to use e-textbooks, Compatibility impacts perceived usefulness to use e-textbooks, Complexity has little or no influence on intention to use e-textbooks and complexity has little or no influence on intention to use e-textbooks. The overall result led to the conclusion that students prefer e-textbook to the printed textbook.

Keywords: *printed textbook, e-textbook (digital textbook), perceived ease of use, attitude, complexity, compatibility.*

DECLARATION

I, Shammah Chukwuehike Osih declare that

- (i) The research reported in this dissertation/thesis, except where otherwise indicated, is my original research.
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DEDICATION

I dedicate this work to God, who through His mercies, unending love, and unending provision, has seen me through from the start of this project to the very end and also for seeing me throughout my stay at the University of Kwazulu-Natal. To my amazing supervisor Dr Upasana Singh, I thank you for your patience, kindness, understanding and continuous encouragement.

To my amazing parents Mr Bruno Osih and Mrs Azuka Osih for their continuous love, support, provision, unending prayers and constant encouragement, I thank them for it. To my sister Shekinah, thank you for your help, support and love.

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List of Acronyms

E-textbook	Electronic textbook
PEOU	Perceived ease of use
PU	Perceived Usefulness
ATT	Attitude
CMP	Compatibility
CMX	Complex

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CHAPTER ONE

1.1 INTRODUCTION

One way to acquire knowledge or information is by reading. Reading plays a major role in the learning process. It is a way of passing ideas and suggestions to a reader through written text which can either be electronic or printed. If an individual doesn't read, they won't have information of what's going on in the world as well as they wouldn't be able to keep tabs on what is happening in their surroundings . (Sharma, 2019). Books have been known to be an integral part of the lives of people as they provide a learning foundation from early childhood and grow continuously with people throughout their adult lives. A books' purpose is to communicate information of any kind (Byars, 2015). Reading maybe regarded as a compound activity when probed closely. It entails more than simply what the vision spots on a sheet. To read means to focus and comprehend the explanation of letters, symbols, words etc. At the heart of this digital era, the question arises as to whether the brain responds separately to various text types, more distinctively if the brain responds dissimilarly when symbols, words or letters are introduced to the reader in separate forms. There is a belief that reading from the printed text and reading from the digital text causes the brain to respond differently, thus causing both positive and negative reactions from readers (Byars, 2015). Zhang and Zhou, 2003 stated that some readers lean more towards using printed text because digital texts are strange to them while the digital age readers are used to reading from tablets, phone and other digital devices thus finding printed text queer .

According to Goslin (2008), a textbook can be defined as a printed and bound artefact that consists of certain ideas or information about a certain topic. They are used a lot mainly by corporations to set standard curriculum for either school systems or large organizations. The pervasiveness of the internet is increasing at a very fast rate. The development of Information Technology has without uncertainty created a major influence on the educational sector especially in the tertiary institution. (Fang, Schleppegrell, Lukin, Huang and Normandia, 2009). It has also altered the various learning methods (in the lecture halls) (as well as learning technology) (Zhang and Zhou, 2003). Besides, the Internet has also caused a major transformation in the industry since the development of digital books. According to Shiratuddin and Landoni (2003), the subsequent establishment of mobile electronic readers such as Amazon KINDLE, iPad and smartphones which provides readers with the better reading experience, electronic textbooks (e-textbooks) have been gaining wide interest. The emergence of etextbooks has created a great opposition to the conventional reading pattern of printed textbooks.

Nevertheless, the aim of e-textbooks is not to take the place of printed books but rather to facilitate the reading process making it easier and more convenient (Folb, Wessel and Czechowski, 2011). Additionally, lecturers have various choices of teaching instrument to stimulate a student's learning interest (Shamir and Shlafer, 2011). The debate between using printed textbooks or digital textbooks (e-textbooks) is ongoing in the educational sector. This study identifies the textbook preference for the Information Technology undergraduate students of Pearson Higher Institution.

1.2. RESEARCH BACKGROUND

History records have shown that provided that a form of writing and schooling has been in existence, so have textbooks been presented in various forms. Textbooks are not just designed for learning and teaching purposes but are also political records which reflect the vision of a particular group. The 16th century holds the date as the earliest known time in which textbooks were written and it was written in Latin. Students then probably had learnt the basics involved with reading and writing of the Latin language but were not prepared for the long passage readings (Ellsworth, Hedley and Baratta, 2012). Records have also shown that aged old countries like Greece, Rome, China, India, and Egypt also made use of textbooks. Aristotle produced textbooks for countless subjects especially for academical procedures like instructions (Ellsworth et al, 2012). The 19th and 20th centuries saw that textbooks were used consistently to teach the curriculum. Knowledge has been well organized and distributed by the means of printed textbooks. Textbooks have gathered a body of knowledge and have served as a mechanism for learning introduction as well as references (Bierman, Massey and Manduca, 2006). Although many other forms of learning materials have been made available for use, research has shown us that there is a continued reliance on textbooks by lecturers. The study intends to evaluate if the Pearson Institute information technology undergraduate students prefer the printed textbook or digital textbook..

1.3. RESEARCH PROBLEM

Textbook selection decisions are often left for the student to decide. Students who are usually hesitant towards reading printed text or electronic texts are not familiar with the advantages and disadvantages of each text respectively. Thus, the absence of information prompts the students to employ only one kind of text either digital or printed. Some students feel uncomfortable reading texts electronically as they are not familiar with it and some other students are accustomed to reading text electronically and have shunned printed texts. There is a common belief among readers that the success of a reader is based on the specific type of text he or she reads or uses (Patton, 2014)

The problem is many readers haven't been able to fully comprehend the link between specific types of text (digital and printed) and the success that exists with each of them, thus causing them to make an ignorant decision about which text to employ to have the most favourable result academically (Patton, 2014). Students are always required to purchase one textbook or the other to finish a course and most of these textbooks are accessible in both printed and digital text. Some students find the need to use the printed text as it is easier for them to highlight pages as well as to write side notes within the texts while other students prefer the digital text as it can be more easy-going, and it doesn't demand a great deal of physical strength as in carrying a printed text.

The question on many students' mind is which type of text to use and whether or not it would affect their academic performance in a course. Through this research we will be able to identify the factor that affects the textbook preference of the Information Technology undergraduate students of Pearson Higher Institution.

1.4. RESEARCH QUESTIONS

What is the textbook preference of Pearson Institute Information Technology (IT) undergraduate students?

To support the main Research Question, the following sub-questions will be tackled:

- What are their preferences- e-textbook or the traditional textbook?
- How do students engage with the type of textbook they use?

1.5. RESEARCH OBJECTIVES

- To determine students' preference on which textbook they prefer. ➤
To determine how students, engage with their preferred textbook

1.6. RATIONALE

Students are regularly expected to acquire textbooks to finish a course. These textbooks are made available in both digital (e-textbook) and the printed text. Some students fancy the printed textbook because cause of the ability to hold it physically, highlighting and being able to jot down notes inside the text. Other students fancy digital text (e-textbook) because it saves having to carry a book physically from one lecture to the other and is easily accessible as well as the online and digital feature it provides. Nevertheless, some students still are not certain of which text type is favourable to them for a university subject. Will the type of textbook I use

have an influence on my academic performance in a certain course? Remains the question on the mind of many students.

An investigation conducted by Falc (2013) showed that students appreciate the privilege of choice when it comes to the textbook type to use on their own. Additionally, the study explains that students need to be aware of the advantage and the shortcomings of both the printed text and the digital text. It is important for lecturers to be enlightened about if betwixt the kind of text, the student uses and student's academic performance. (a relationship exists). If students are more enlightened about the positives and negatives of both the traditional textbook and the e-textbook, when asked to make use of a certain text type that is not their individual preference, they may be better equipped to choose between the two.

1.7. SIGNIFICANCE OF THE STUDY

The importance of the research is to grasp why students are making the decision to use either traditional textbooks or e-textbooks and what makes them choose these preferences. The benefits that will be derived from this research will help illustrate what the students feel about traditional (printed) and e-textbooks (Digital) and the reasons that go into making that decision.

1.8. DELIMITATION OF THE STUDY

Below are the delimitations of this study:

- The sample size is 3rd year undergraduate students of the IT department only
- The group in this study was a small sample: 80 students
- The data collected is restricted to one university: Pearson Institute, Midrand as they use both digital text and printed text
- This study will be based on the preference of the IT students

1.9. DEFINITION OF TERMS

Printed text:

A text that is displayed in a physical form and shown in such a way that it can be felt or grasped by the reader seeing it as text printed on paper (newspaper, magazine, etc) (Rockinson-Szapkiw Courduff, Carter and Bennett, 2013).

Digital text (e-text):

A text that is seen using a technological gadget such as tablets, laptops etc (Abaci, Quick and Morrone, 2017).

Academic performance:

The rate at how well you do in an educational setting (Landrum, Gurung and Spann, 2012)

Preference:

The greater liking for one alternative over another or others (Abaci, Quick and Morrone , 2017)

1.10. ASSUMPTION

This segment presents assumptions that might influence the research. Below are the assumptions of this study:

- Survey responders were willing participants and had sufficient understanding of both textbooks
- Survey responders had sufficient time to answer the questionnaire
- Responders can supply proper information to evaluate the proposed hypothesis of the study

1.11. OUTLINE OF THE RESEARCH

Chapter 1 has supplied the introduction, research background, problem statement, research questions, objectives, significance, key term definition, delimitation and assumptions. Chapter 2 shows a theoretical review of literature focusing on printed textbooks and digital (e-textbook) textbook, hypothesis and conceptual framework. Chapter 3 inspects the methodology utilised in this research and its result is shown in Chapter 4 while chapter 5 is the discussion of the findings and Chapter 6 contains the summary, conclusion, and recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1. INTRODUCTION

Technology has turned out to be an essential phenomenon in this present era which has influenced every area of life and education is not excluded from it either. The techie students of today have easily accepted e-textbooks to replace the printed textbooks thanks to its ease of use and accessibility. Diverse views and opinions on student preferring a specific format (etextbook or printed) of the textbook have put in place a platform for more centred research on this topic globally. Thus, research to set apart the pros and cons of both textbook format

(e-textbook and printed) and the basis for their respective selection and preference of one over the other is very much needed presently. (Alfiras and Bojjiah, 2020).

Arguments over the use of e-textbook or printed textbook in different work field have been ongoing, however it has become very conspicuous in the educational sector. In the tertiary institution, a textbook is a major tool for learning. The textbook is a major source of information that helps a student further expands on what has been taught in the classroom (RockinsonSzapkiw et al 2013). The nature of textbooks in this digital age is evolving and 80% of students at the university's own laptops, tablets, and smartphones (Smith, Salaway and Caruso, 2009). The increase in technology has caused the use of the electronic device for reading purposes to become popular (Hue, Rosenfeld and Saa, 2014). Due to technological advancements, the student continuously educates themselves more independently. They have begun utilising new learning strategies which involve electronic devices. With the introduction of e-textbooks, the text structure can be either in a linear or nonlinear form thus creating different ways of learning. E-textbooks can be in a nonlinear form, rotating based on the content of the screen as opposed to printed books which are in a linear form with a fixed layout text (Kerr and Symons, 2006). Engbrecht (2018) stated that lecturers have been "making use of multimedia for presentations and integrating digital resources such as interactive websites and educational games into their teaching plans". Nonetheless, it has progressed to become the pathfinder of changing the printed books to electronic books which have now advanced and have become interactive ebooks.

According to Reynolds (2011) e-textbook adoption alongside its wide range of interactive features is envisioned to grow rapidly over the years. For many people, reading books will always be a foundation for learning. Whether it is for personal pleasures or for educational purpose, the need for books by people will always be continuous. Nevertheless, due to the continuous change in technological advances of the world, different physical forms have been taken on by books throughout the past several decades thus, resulting in the division between the printing world and the digital world.

The tech-savvy mindset of the modern-day students has embraced the infiltration of new technologies into the learning and teaching process. Notwithstanding the ages, the major purpose of education is to help the students turn out to be independent learners, being able to comprehend and interpret ideas and solve problems using their knowledge. (Alfiras and Bojjiah, 2020). E-textbooks and printed textbooks are very different and to decide on which to choose from, options need to be weighed ranging from cost to availability and features, as these are all major influences on readers' choices on which type of format they prefer (Golan, Barzillai and

Katzir, 2018)

In our daily lives, digital devices have become part of us, at home, school and offices. Over the past years, there has been an increase in the use of digital devices for reading. Since the incorporation of technology into education, digital texts are now accessible in higher institutions as they provide cost advantages and attributes that are meant to help increase learning and teaching (Abaci, BrckaLorenz and Quick, 2019). A study that was done by DeNoyelles and Raible, (2017) suggested that higher institute students often buy e-textbooks due to its low cost and convenience. Understanding student's decision and preferences on both digital textbooks and printed textbooks is very important.

2.2. IMPORTANT HISTORICAL RESEARCH

This part of this chapter draws attention to some significant historical aspects of textbook use in classrooms. For numerous years, a textbook has been used in classes in a definite way now just as technology is now a significant part of education. The method in which textbooks are used will (continuously) expand and transform.

Being knowledgeable of the way textbooks were utilised formerly is important in comprehending how they are utilised presently and why students identify in a certain manner about using different textbook types.

An investigation conducted by Driscoll, Moallem, and Dick (1994) on textbook utilisation analysis in school classrooms and how it affects students' education and achievement showed that students (effectively) used their textbooks to answer questions, reference vocabulary and as a reading instrument. Although each of these components played an important role in doing satisfactorily in the stated evaluation, Driscoll presented a connection between the textbook being utilised in class, how via the activities learning took place and how it can be applied to a student's achievement.

A research conducted by Davey (1988) to discover how lecturers used textbook within their classes, disclosed that 1/3 of the surveyed lecturers use textbooks as an addition to their directives and 1/3 used them for conversation. The research also showed that textbooks were used as backups for direction or allocated readings with secondary school teachers.

Roschelle, Pea, Hoadley, Gordin, and Means (2000) carried out a study on how digital-based technology can affect a student's learning way and learning content. Their research expressed that through the agile activity of enthusiasm and participation and digital-based instrument supplies the principles to execute and sustain the learning type of the students in such a manner that the traditional tutoring can't. This perspective of printed and digital tutoring instruments

backs the idea that the material kind utilised by a student affects them positively or negatively in the learning taking place thus affecting their academic achievement. The study also explores the crucial perspective of the use of digital instruments in the class and how using these digital instruments can provoke unruly and compulsive behaviours amongst the students because of their accustomed and agile characteristic. This also supports the point that various material types can have both favourable and unfavourable influences on the learning of the student as well the learning taking place also influences the students' academic achievement, (Roschelle et al.).

Reinking and Schreiner (1985) carried out another study on how digital instrument can influence learning. The research examined the hypothesis that 'using the computer to supply such an occurrence would expedite reading knowledge'. Their study proposes that different texts and using text alteration can influence students understanding of the text. Their study explored how a student's reading performance can differ due to the technology-based text as well as the way the student handles the on-screen text.

From the deduction found in his former investigation, Reinking (1988) carried out a corresponding research to establish the particular attribute of e-text influences on a student's studying activity and how the student understands the text. His research gives a more thorough investigation as to what features make e-text differ from the printed text, and how it affects the variation in studying and understanding. Reinking found that characteristics like reading time consumed, preference of the scholar and the perception of the reader on their own studying, can perhaps be influenced by using e-text, thus changing the method in which a student gains knowledge.

Blanchard and Mason (1985) carried out an investigation regarding how computer-based studying is utilised in subject matter directives. Their research explores how specific digital mechanism and initiative give wider chances and knowledge for students that is unavailable if utilising printed text. Their investigation supplies fundamental background knowledge to back the reason a specific university lecturer might make use of e-textbooks or the reason a student may favour using digital text.

2.3. THEORITICAL ORIENTATION (HISTORICAL)

Using various designs and textbook types show that students learn distinctively from each other and depend on various types of educational mechanism to back up their own knowledge. Educators are also supplying various kind of studying mechanism, evaluation, plans, and educative exercises to assist all students to accomplish individual educational objectives. Using various textbook types and educative documentation by the educator and students and the

probing into whatever kinds are more favourable and are backed up by the upcoming academic theories/philosophies

Multiple Intellect Theory by Howard Gardner proposes that human intellect can be split into 7 definite classes: mathematical reasoning, lingual, lyrical, spatial, bodily kinesthetics, interpersonal and intrapersonal (Gardner, 1989). An 8th class was added: Realistic (McCoog, 2007). These intellects have become an essential component in the way educators comprehend the students whom they work with as well as striving to develop processes to adapt to every learner type. Gardner deduces that one person can have all 7 intellects; although one or two kinds are generally more notable than others, and frequently embraces the learner kind that the person is. This viewpoint has led educators to accept that students require varieties of learning encounters and mechanism that are attractive to all students, notwithstanding their particular area of intellect or method of studying.

In the write up about the multiple intellect and technology usage, McCoog put forward that instructors in the age of present-day tech gadgets should be capable of making use of technology in such methods that would be attractive to all kinds of students and intellects. McCoog explains as to how the instruments of technology like a computer game, exercises, and even textbooks can be redesigned as well as be used by all kinds of learners. Nevertheless, it is understandable that some of these tools of technology may not be attractive to every kind of learner in the manner traditional academic mechanisms might. For this purpose, it is of uttermost importance to comprehend each kind of intellect and how utilising technology versus the traditional method may influence a student's studying and his educational achievement.

Theory of Subsumption by Ausubel discusses the design of a student's potential to grasp and manage current data in the most effectual method to further high directive reasoning and knowledge (Ivie, 1998). The base of this thesis states that every student has his own method of arranging and understanding the presentation of the new material in some kind of academic surrounding. The importance of this thesis resides in the reasoning that a student will manage this current data and information respectively relying on style and arrangement which is dispensed.

Novak (2003) explores technology's influence on Ausubel's thesis of significant and favourable directive teaching is pursued in the world of learning. As teachers start to comprehend fully the design of how knowledge is managed in a significant and effectual method, they are additionally shaping how recent evolving technology can boost the acquiring of material and increase the students' studying. This describes how the theory of subsumption by Ausubel can be moved forward via current technology devices like programmes online, web

sites, and texts. E-texts influence how students understand and manage new materials. Various methods of showing materials, such as various textbook types, may generate a contrast in the students' method of comprehending the material, thus influencing their educational comprehension of a specific subject.

Bloom's Theory of understanding knowledge is a way of educating, that puts forward that students can be triumphant if specific methods of teaching are executed (Kazu, Kazu, and Ozdemir, 2005). Students can receive and comprehend the material more productively when supplied with the most productive plans and mechanism. The understanding knowledge model is extremely productive in observing the distinctive differences of each of the students and their style of learning. Thus, it puts forward supplying different types of directives and also a broad diversity of studying instruments to assist students in mastering a certain subject (Kazu et al, 2005). Hinged on this design, supplying students with different textbook options from which to study places each student in victory, regardless of the style of studying.

This makes sure each student gets the chance to, not only select their own instrument to study from, but furthermore to utilise the instrument in such methods that is encouraging to them. The understanding knowledge framework comprises of more than just instruments for studying, comprising of an ideology syllabus, key models, and evaluations (Kazu et al, 2005). Nevertheless, instrument for studying, like textbooks, play an essential part in all of these features and can have a big influence on a student's academic achievement.

Using schema theory in classes mentions students making use of their preceding understanding of accustomed designs, plans, and material, while obtaining new materials (Zhao and Zhu, 2012). The theory describes how students are competent enough to utilise past encounters and what was previously assimilated, and then put that into fresh conditions in the educational surroundings. More particular to studying, this theory puts forward a technique of approach to utilise, before, through, and after, studying to comprehend completely the current materials (Zhao, 2012).

In utilising certain textbook types, students' favour what they are already accustomed to utilise the textbook in a suitably, and to master and manage the data in the most effectual method attainable. Incorporated in the student's outline is the kind of studying instruments and text that students are accustomed to. Students who often make use of printed textbooks will utilise their preceding knowledge when studying the textbook. This outline assists them to (accurately and productively) utilise the textbook. Likewise, some students may be accustomed to making use of a digital version of textbooks. The students who enjoy utilising digital textbook and are well

informed of how to utilise their different components. This preceding comprehension makes them triumphant in utilising digital textbooks, thus backing their motivation for using it.

2.4 E-TEXTBOOK DEFINITION

Books are the most significant channel for spreading of knowledge, developing personality and relaxed reading. Throughout the centuries, books have undergone a remarkable transformation from being written by hands to being printed and now has become electronic. Throughout the last two decades, owing to the numerous benefits that comes with the e-books, this format has earned massive popularity and has been embraced amidst a vast range of readers. The epublising industry is thriving at an incredible pace. (Majid, Chenquin, Chang and Zilu, 2019) E-textbooks has been explained in various ways. Researches on e-textbooks describe them as digital texts accessed via electronic screens. The e-textbook concepts started as printed versions of books being converted to electronic versions but, currently, e-textbooks are produced as their original versions in which they have no printed versions of their books (Bennet, 2006). Etextbooks through its use of automatic text storage and retrieval process can be referred to as a computerised device with electronic content (Abdullah and Gibb, 2008). E-textbooks because of their digital way of accessing reading materials and also being used as a learning tool can be considered an innovation (Maduku, 2015).

Current technologies for e-reader provide support to e-textbook usage on electronic devices for academic purpose (Lai and Ulhas,, 2012). E-textbooks can be accessed by students from anywhere thanks to mobile wireless devices such as tablets and smartphones.

The electronic textbooks development (e-textbooks) has grown drastically and their use will continue to rise mainly because of the e-reader platform adoption. It is true that the arrival of e-textbooks has questioned the conventional reading behaviour of printed textbooks. Due to its advantages such as easy accessibility, interactive nature, increased visualization and actively linking supplemental documents, e-textbooks have become more popular in higher institutions (Nicholas, Rowlands, and Jamali 2010). The constant development of e-textbooks has not only heightened the prospect of lecturer's interaction with the student but also the student's perception of e-textbook adoption has been altered (Lai and Ulhas,2012).

2.5 PREFERENCES FROM PAST RESEARCH

E-textbook vs Printed Textbooks

An increase in access to both the printed textbook and e-textbook allows students to think about which preferable: e-textbook or printed? Studies from various universities in different countries show that undergraduate students most likely prefer printed over e-textbook (Lor,

2017). Undergraduate students who preferably use printed textbooks as they are more familiar with it than e-textbooks, often go through a longer adjusting process as they learn how to make use of the e-textbooks. The digital way of issuing out contents to other over the web is most likely the quickest and more effective than printed textbook layout. Theoretically, students may preferably be used to studying on-screen data for specific, easy information, abridged points, text messages, feedback from social media or e-mails. Nevertheless, a student's preference for one textbook over another has both positive and negative factors that sways their decision.

Cost Differences of E-textbooks and Printed Textbooks

Even though printed textbooks were preferred by students over e-textbooks in various research studies, one important element is their cost (Terpend, Gattiker and Lowe, 2014). E-textbooks are bought by students though they like printed textbook because of the difference in cost. Normally, e-textbooks cost about half the amount of a printed textbook. As much as a printed text can be resold for cash, the low cost of the e-textbook could make many students go for the e-textbook over printed.

2.6. NEGATIVE EFFECTS OF E-TEXTBOOKS

Students show a compelling preference for printed texts cause e-textbooks can irritate students in different ways such as eyestrain/headaches, internet connection needed etc. These matters are the starting basis of this study.

1. Difficult On-Screen Notetaking

It can be quite difficult taking notes with the digital device which is probably why students favour printed texts in place of e-textbook. Rockinson-Szapkiw (2013) carried out a study which showed that out of 106 students, 52.8% selected taking notes on paper as opposed to the other four choices which read: "No Answer", "Typed using word document", "type in textbook/write in the textbook, "Did not take notes from book". Students often take exception to adapt to various annotation tools from diverse applications on e-textbook. The tools used for taking notes in an e-textbook may vary in looks and function depending on which provider is being used. The technique of becoming used to each providers tool, can be the same time spent reading.

2. Headaches/Eyestrain

The bright light from the e-textbook display as well as the screens high pixilation causes strain to the students' eye, thus making the text harder to follow thereby causing headaches (Myrberg and Wiberg, 2015). Students may end up taking several long breaks to relax their eyes due to the eyestrain caused by using the e-device to read for

a long period. Staring at a device display for a prolonged interval can lead to a condition known as “computer vision syndrome” which leads to the eyes being dry, the eyes being fatigued and the eyes being strained. It is however temporary (Myrberg and Wiberg, 2015). Students are therefore advised to make use of bigger screens for the e-textbooks because the bigger the screen, the bigger the text and the tools become more visible.

3. Difficult Page Navigation

Navigating from page to page is also a negative problem that can cause students to grapple with using e-textbooks (Hobbs and Klare, 2015). With printed textbooks flipping a page is very easy and can be done in a matter of seconds unlike e-textbooks where you need to click a button repeatedly or the specific number of the page must be typed in and this takes a substantial amount of time. Page to Page navigation is a global navigation procedure that various online users whether using social media, e-textbook application or news applications still, page to page scrolling is still not permitted for some e-textbooks. (Hobbs and Klare, 2015). Another issue that students using the e-textbook may run into occurs when they attempt to move from one page to another distant page such as moving from glossary to index page, the former page may not save neither would it be bookmarked.

4. Long Page-Load Times

Many e-textbook users can become easily vexed and irritated due to the intense loading time of the page on the e-textbook especially if a certain page contains information of a large size, thus creating a time lag before the device shows the content. The difficulty may comprise of speech-dictation, visual representation, cognitive and auditory (Lor, 2017). Features such as text-to-speech functions which is an add on for the visually impaired by the e-textbook to make using it easier for them and this may cause the display on the page to take longer as the device loads the extra information needed to support that feature. The student’s enthusiasm to read the text may reduce drastically due to waiting for the page to load, or the student may indulge in something else like surfing the web which would distant them from reading the e-textbook.

5. Internet Connection

For most e-textbooks, internet access is an essential part and important priority for university students and daily communications or social media (Bossaller and Kammer, 2014). Regardless if the student uses a tablet or desktop to gain access to the e-textbook, access to the internet may be essential to use an e-textbook that does not permit for downloads. Internet access might not be required for e-textbooks that have been

downloaded, nevertheless update contents will be restricted. (Hobbs and Klare, 2015). Students who make use of the campus network may have effortless internet access and will eagerly find a spot with access to the internet to make reading their e-textbooks easy.

2.7. POSITIVE EFFECTS OF E-TEXTBOOKS

Though the students might find using e-textbooks as a lot of stress and hard work given the negative attributes mentioned above. However, Baek and Monaghan (2013) discovered that over a lengthened period, students are inclined to accept e-textbooks although and a semester or two (the time frame) may not be sufficient to develop the students comfort and user adeptness to the textbook. Undergraduates who are used to studying their courses from printed textbook need to have a period of transition before they become at ease with using e-textbooks. Even though students tend to prefer printed textbook over e-textbooks, e-textbooks provide different features which the students approve of and that can help increase their learning (Hartsell and Wang, 2020). The qualities of e-textbooks considered as favourable are; ease of access, ease of page navigation, portability and printability. The benefits of these qualities are explained below:

Ease of Access

The same way different screen devices can easily access the internet, e-textbooks can be read at anytime and anywhere. Using an e-textbook, ease of access is available anywhere provided a device for reading e-textbook is available. Based on the e-textbook provider, it's not every e-textbook that requires constant internet connection a some may be easily downloaded and read later without the internet connection. Likewise, some others are only accessible on the web and would need an internet connection for the interactive and up to-date feature to be made available (Hartsell and Wang, 2020)

Ease of Reading

E-textbook application and features are constantly being improved y the e-textbook provider. One main tool that helps the students in understanding what they are reading is the incorporation of the English dictionary which immediately explains words the students might not understand. (Lor, 2017). By clicking a button, the students get a definition of a particular word. Students who read the e-textbook often do not plan to read the entire course material but only particular sections. Reading in smaller sections or short-term reading sessions helps lessen eyestrain. Reading in short chapters makes reading e-textbooks effortless owing to the reason that the interactive and text features offer assistance that the student can easily access during a reading session to increase the comprehension of the content.

Ease of Page Navigation

Reading with the printed textbooks and flipping of pages is what a lot of undergraduate students used while completing their primary education. Most times students who are making use of printed textbooks have to memorize where particular chapters or make use of a physical bookmark. When making use of e-textbooks, navigation can be done more quickly (Lor, 2017). Students are allowed to move to the next page of the content or go back to the former page by making use of the in-built command available in the e-textbook software such as the click of a mouse. Students can jump to a particular page from a present page; for example, students can move directly from page 6 to page 15. Additionally, the majority of e-textbooks contain glossaries and indexes. Even though viewing a two-page spread may need a bigger display, the bigger display allows for reading with few mouse clicks. Page navigations such as page to page jumping, glossary consulting or index use when utilized to its fullest make the student gain the most from the e-textbook resources.

Portability

Portability can be described as not having to move around with a printed textbook which weigh heavily and allows the capacity to keep a collection of all your readings in a digital library (Lim and Hew, 2014). The potential to access different e-textbooks via a digital device and to record files puts an end to the need to move around with different printed textbooks to class when studying. A research carried out by Lim and Hew (2014) revealed that portability was rated the most valuable characteristic of an e-textbook before convenience, storage, and text-to-speech in understanding students e-textbook preference.

Printability

Based on the e-textbook provider the capacity to print part of an e-textbook may be permitted. Students tend to save paper by printing a shorter part rather than the entire text (Hartsell and Wang, 2020). Being able to print particular sections/pages instead of the whole chapter is an advantage cause the student can then print what they want to highlight, and these could include graphs, illustrations or images. The printability feature allows for the student to print the relevant part and added note by hand to suit their comfort (Hartsell and Wang, 2020). Printability permit a student to read from printed sheet only if they want to and permit them to make additional notes directly n the copy they printed. The print option maybe focused on by the teacher who make use of the e-textbook material to draw attention to the different media that are available to help make learning easier.

2.8.ACCEPTANCE OF E-TEXTBOOKS

Although e-textbooks rivals printed textbook for acceptance from students, some students may still not be prepared to embrace e-textbooks while others are more than excited to embrace etextbook. E-textbooks are fast becoming favourable because of its ease of reading, portability, ease of access, printability and page navigation. As long as e-textbook provider continually refine and upgrade their interactivity and interface, the more students may understand the benefits in making use of the e-textbooks (Abaci, BrckaLorenz and Quick, 2019).

2.9. UNIVERSITY STUDENTS AND STUDYING OF TEXTBOOK

To identify the result that the different types of textbook have on university students, one needs to understand reasons why students read textbooks for their courses, their textbook preference and how the textbook affects their academic success. It is crucial to acknowledge student's preference on using textbooks as well as its influence on their academic success. The research listed below will make available studies regarding these features of university courses and give an understanding as to how each detail is linked.

An investigation conducted by Landrum, Gurung, and Spann (2012) on textbook use and its relationship to student's performance. The research showed that if a student is not taking their time to read from their given text, succeeding academically in a course becomes a major problem. While various aspects were examined for affecting the students' academic achievement, the one vital factor that has been established that consistently impacts a student academic success in a subject was the textbook being used (Landrum et al, 2012). Their results give support to the idea that the grade received by a student in a subject academically is related to the textbook they use. The relationship can be analysed based on students reading habit, textbook content, and textbook presentation form.

Landrum et al. (2012) also researched students' perceptions of other instructional tools and the textbook being used in a course. It is crucial to understand if the students are or are not reading because the material presented is inadequate or insufficient. When students are satisfied with how the textbook being used in the class is presented to them, they may be more inclined to read the textbook, thus having a better performance in class for having read the assigned material. Likewise, when the students are dissatisfied with the textbook being used in class, they are less likely to read from the textbook thus causing a lack of success in academic performance because they are unable to read or understand the assigned reading material. To comprehend how the reading of textbooks affects students, we must first understand the various situations and reasons as to why the student reads the textbook. University students read for diverse reasons, a lot of which affect their academic success in the subject they are reading for.

The format in which text is often presented to a student might affect the students reading habit (Landrum et al, 2012) . For instance, based on the text type the student is using, the student may be inclined to read more or better yet read successfully. These consist of both digital textbooks and traditional textbook, articles printed online, articles printed out and handed out in classes, or materials obtained from an online course. The various ways of showing texts could directly influence a student's reading habit as well as student's success within a course. It is of uttermost importance to remember that all students don't have the same reading skills and inspiration, hence access to different types of textbook is very helpful to the students and then the students can make use of whichever one is beneficial to their reading styles

Durwin and Sherman (2008) conducted a study on whether a student's 'choice of textbook affects their comprehension. Their study suggests that the readers attributes and that of the textbook both play a crucial part in understanding of the material. This indicates that students' comprehension is affected by various factors and therefore affect students' achievements. The results from this study indicate that from a student's preference and point of view, "A student is indeed a perfect judge of which textbook to use." (Durwin and Sherman p. 31). This gives an understanding to the way textbooks are viewed by university students and whether the textbook is useful to them, thus, indicating that university students are well informed of the textbook attributes that are favourable to them and those that are not.

Durwin and Sherman (2008) put forward that university lecturers are to be conscious of how textbooks would tend to the requirement of a subject matter and purpose, and if the students will accept the textbook kind being utilised and the method in which information is shown. This text type-examination may consist of the subject matter inside the textbook and design or kind of text obtainable. Educators are to be conscious of various kinds of textbooks that are made accessible to the student and how these various kinds influence a student's impression of the text, understanding the textbook information and altogether a student's accomplishment in respect of the subject matters.

As expressed before, Durwin and Sherman (2008) states that university students are competent and precise when coming up with their logic and belief about textbooks and how much they can learn (from a specific text). Thus, lecturers must supply the student with numerous chances and options while utilising textbook as a principle means for a subject. In circumstances with diverse characters and studying techniques, lecturers will gain the biggest number of students by supplying different textbooks option, empowering students to peruse and understand in a method that is most beneficial to them.

Students decision to read a textbook on a subject provides perception as to how reading will influence their academic achievement. If a student enjoys studying, they will most likely complete their task and will be knowledgeable on the text and subject matter which allows for academic success.

Daniel and Woody (2013) discovered that students spend a remarkable amount of time reading with e-texts, especially when reading at home, as compared to reading in a laboratory situation. Subjects reported increased levels of multi-tasking when reading e-texts, possibly accounting for increased levels of reading time.

Jolliffe and Harl (2008) researched students' reading at both the secondary school and university levels. A portion of the research included analysing the opinions as well as statements of the students regarding reading for their university course. The following opinions were expressed by most of the students surveyed:

- They felt reading was unnecessary hence their refusal to read.
- Other students found their textbook to be dull or boring thus making reading difficult.
- Some expressed how time-consuming and inconvenient reading can be.

This shows that various elements affect how a student enjoys reading, and also from a certain textbook or not.

Jolliffe and Harl (2008) also discovered that when a text is particularly technology-based, the student frequently interacts confidently with the text. Due to the multi-tasking capabilities while reading from a device, students prefer reading via technology. Students appear to excel in digital situations as well as when making use of e-textbooks or any additional form of technology used for reading. Digital text may give an incentive that would entice students into reading, motivate them and assist with their educational achievement. The knowledge is useful for university lecturers, so they are able to provide a suitable textbook to the students for a specific subject.

2.10. UNIVERSITY STUDENTS USE OF DIGITAL TEXTBOOKS

Education is presently changing and evolving. These changes are as a result of technological advancement and opportunities the digital age brings. Currently, nearly every printed textbook being used for any university subject can be bought online in e-textbook format. This presents the question: How will students respond to the use of e-textbook? The following studies below helps answer the question.

McFall (2005) talked about how digital textbooks are transforming the use of textbook in learning environments. It gives support for creators of e-textbooks to surpass the redesigning of the same text in digital form. McFall (2005) further justifies how e-textbooks should present attributes and expertise that goes further than that of the printed textbook to intensify the educational encounter for students who utilise them. It should be more than just on-screen text when it comes to e-textbooks or else there is no contrast between the printed textbook and the e-textbook and no real reason why lecturers should use it.

Furthermore, the report highlights how students lean towards embracing a submissive viewpoint when studying from an e-textbook (McFall, 2005). The study puts forward that the most accomplished readers are agile readers. To give favourable material to agile readers, the text must be agile also. E-texts with attributes like speech modulation, communicative questions and evaluation, and recorded documentation etc. give learners the required method of becoming an agile reader. Another illustration of an attribute stated in the study is the utilisation of functional highlighting. Even though highlight can be carried out in printed texts, performing an un-highlight can be done with e-textbooks. As stated by McFall, this is an approach that most e-textbook readers make use of since it gives room for errors to be wiped out. Parts that were considered relevant and highlighted at first may later be deemed useless and e-textbook gives you the chance to back track and edit the highlighted part. This basic attribute gives room for e-textbook to be utilised by agile readers in such a manner that the printed textbook cannot. Features of e-textbook and how they are prearranged alters the method of using textbooks in classes. If teachers are opened to learning and embracing these new texts and to educate their students on it, studying and reading encounters will be remarkably strengthened and improved.

Rowlands, Nicholas, Jamali, and Huntington (2007) investigated how lecturers and students at the university view e-textbooks. Various topics were examined from the data collected from the survey. The research discovered that all e-textbook users at the university favoured studying from the screen instead of paper. This is a fascinating data that reinforces the use of e-textbooks by both lecturers and students, considering they have similar encounters and readiness in terms of technology kinds. The research also discovered that those using e-textbooks make use of them more for work and education rather than for fun. This is most probably the effect of the distinct attribute provided by e-textbooks being geared in the direction of assignments and reading rather than for fun. Further data revealed that e-textbook is popularly used by the lecturers and students at that university. The lecturers and students depend on electronic reading gadgets more precisely for educational reasons than for any other purpose.

The outcome from the Rowlands et al research reaffirms the belief that universities were first to embrace and support using e-textbooks. The educational environment also gives the most chance to make use of digital textbooks. E-textbooks are planned and styled to suit the desires and requirements of university lecturers and students. Taking control of this population is the initial thrust in the current e-textbook development. This has previously begun to progress towards primary and high school learning as well. The transition will occur just like it did in the universities but most likely slowly.

The principals and teachers will encounter the same issues discovered by university students and lecturers. In due time e-textbooks will transition even more to accommodate the requirements of the present-day demographic.

McGowan, Stephens, and West (2009) researched to examine students' perceptions on digital textbooks. The research sought to discover if more subjection to digital text altered their perception and reaction toward e-texts.

An assessment was handed out to university undergraduate to ascertain their exposure to e-textbooks and their perception of it. The research discovered that students still seem to favour the printed text over the digital text. Nevertheless, the research also discovered that in terms of unique attributes, students favoured utilising the unique attributes provided by the e-textbook. This indicated how students may be unaware of the e-textbook, changing their views and readiness to attempt them. Although when enlightened about the unique attributes of the digital textbook, and educated on how to utilise them, it seems students will make use of the unique attribute provided, thereby amplifying their study experience in a great way.

McGowan et al (2009) examined other topics through research assessment including textbook accessibility, textbook weight, benefits and reading difficulty or ease. Majority of the students concurred with the fact that e-textbooks are normally more accessible using a digital gadget, as against the demand of carrying certain textbooks in printed form. Most of the students conceded that the physical mass of printed textbook is a drawback and a benefit with digital textbooks. The last major finding was simplicity in studying which favoured the printed text and is a drawback for e-texts. This data recedes to the fact that the eyes can be strained from reading from digital textbooks. It is crucial to remember that this data was collected from students who either favoured e-textbooks or favoured printed textbooks. This made respondents reply in specific ways based on which they favour more. Nevertheless, these data do give more backing for some of the usual view and idea of e-textbooks

A report was written by Doiron (2011) on using e-textbooks and e-readers in libraries and the influence the devices are having on learning in school, recognises several advantages of using

e-textbooks such as inexpensive manufacturing, space effectiveness, effortless update entry and multimedia attributes that strengthen the reader's encounter. These are just little things that are enticing school administrators and lecturers to e-textbooks and other information online. These benefits are what attract both the students and the lecturer when deciding which type of text to buy and use. Doiron also drew attention to some features of e-textbooks which raise concerns with the lecturers. Amidst these concerns is the absence of access to e-readers, and the feasible reluctance students and other readers may have regarding e-textbook.

These issues are a reality for teachers and students. Nevertheless, undergraduates and lecturers of universities have grown more accustomed to the devices and enjoy considerable ingress to them. Thus, they are much more open-minded to master and to attempt e-textbooks. An absence of e-textbook encounters and understanding is the major drawback withholding lecturers from accepting the era of digital texts and devices.

Doiron (2011) further described how university librarians have taken the lead in changing to digital textbooks. The research put forward that lecturers were more at ease with embracing etextbooks when they had an expert around with deeper knowledge and understanding of the new devices. As e-textbooks begin to alter the learning world, university librarians can take leadership of the circumstances by educating themselves and by sharing the data with their coworkers

Jones and Brown (2011) participated in research regarding the printed book and e-textbooks with students of the third-grade class. Their research explored each student's contentment with the printed text and the digital textbook and their understanding of the texts. Students who took part in the research, finished studying, taking assessment test from both the printed textbook and the Digital textbook. The outcomes were assessed to discover the type of text the students favoured, and the degree of accomplishment based on the textbook type they read.

The result showed that in consideration of understanding, the text style was not a huge feature unlike the student's comprehension of the fundamental writing elements (surrounding, features etc.) Although in terms of which the students lean more towards, the outcome showed that students favoured e-textbooks due to the choice of various book titles and the possibility of making their own textbook choice based on titles available.

Students also stated that they favoured the digital textbook more because of its unique attributes such as its capability to find definitions, word articulation, automated page-turning and the read-aloud option. These attributes assisted students to be more open to the use of e-textbooks, thus making them more confident with it.

Lastly, even though the outcome revealed that learners were content with the e-textbook and showed great satisfaction. Even though this research (Jones and Brown ,2011) was carried out with 3rd graders, it still applies to the university. It still indicates students' views regarding the digital text. It also allows for intuition into how prospective university students may react to various kinds of textbooks and how knowledgeable they are with utilising digital texts.

In an investigation carried out by Weisberg (2011) to evaluate the response and viewpoint of students regarding e-textbook. Students were split into six various classes. The first five classes were given the e-textbooks and the sixth the traditional (printed) textbook. Based on their use of the provided textbook type, student responses and viewpoint were assessed using pre and post-survey. The research showed no remarkable contrast in the study that took place between those who studied with the e- textbook and those who used the printed textbook. Although the research did discover proof to back that students were keen to embrace of making use of etextbooks and had a practical viewpoint towards it in common. The research resolved that throughout some years, the university discovered a growth in the students' readiness to utilise e-textbooks as well as an expansion in the existing use of e-textbooks.

Three crucial elements in the research (Weisberg, 2011) were discovered to express the vital influence on students growing an optimistic preference and the utilisation of e-textbook. The one element was e-textbooks cost. Students believe that predominantly, e-textbooks will conserve money unlike purchasing traditional (printed) textbook of all required subjects. The second element was at the student's view of how e-textbooks will influence their studying.

These are biased beliefs about e-textbooks and can be backed up or altered, based on accurate proof and data.

This brings us to the last crucial element was the lecturers' recommendation. Students appear to pay attention to and acknowledge the recommendation of textbooks from the lecturers.

This further supports the belief that lecturers can have a remarkable influence on students views and beliefs, about specific textbook types and can also influence the student's decision as to which textbook to buy for the subject. Giving choices for textbook types will guide the students about the textbook they should buy but also will depend on the kind of student they are. The case will differ with each student.

McFadden (2012) carried out research to analyse how university subject matter will evolve during the digital age. The research shows that even though digital learning is growing rapidly presently and will continue to evolve in the future, for the education sector the transition process will be slow and moderate as opposed to what was expected. The research discovered that the implementation of the online reading tools, online tests and quizzes showed that digital

transition had occurred in the education sector and even though the movement from printed textbooks to e-textbooks (digital) has not been fully accomplished, it will be a steady process.

The basis for the research as stated by McFadden (2012) is that devices need to be properly made use of. Digital text is a necessity which means the students require a type of electronic device for studying like a tablet or e-reader which will require constant access to the internet. Having access to these devices support the motion that e-textbooks (digital) are being used by most university students.

Nevertheless, students need to decide what kind of text they would utilise depending on their capability to get the required instruments and gadgets to appropriately link to the use of etextbook. An absence of e-textbook requirements could be why some university students are still reluctant regarding embracing and understanding the use of e-textbooks.

McFadden (2012) recognizes the effect of future teaching and studying including growing complications of study resources. This will entail a readiness from lecturers and students to study the current information and to try to utilise it in-class exercises, tasks and alternative subject matters. The value of these current materials also has a role in the study plan and getting new resources and instrument for schooling. McFadden (2012) also stated that university students who already make use of e-textbooks and are acquainted with them will be able to comprehend better in future when new resources and gadgets are introduced. Therefore, the utilisation of e-textbooks now will help make future transition smoother for both lecturers and students.

Eden and Eshet-Alkalai (2013) researched on the effects of text format on the performance of university students. Students were instructed to study as well as rework articles in both e-text format as well as a printed format. Their research showed the work was completed faster by those using digital text as opposed to those using printed text, meaning the students were not only comprehending the text faster but editing the text they read.

Falc (2013) carried out a research analysing university students' attitude towards the use of a digital textbook. The opinion and attitude of the students towards e-textbooks were gathered both qualitatively and quantitatively for the research. An evaluation was given to students using a digital textbook to finish a specific university subject.

The assessment gathered data concerning e-textbook use, how the supplies provided with the e-textbook is being used, how beneficial it is, any complex issue discovered with the etextbook, and the belief regarding the cost. The results of the research showed that the etextbook was used on daily basis by ninety-four percent of the surveyed students. Overall, the analysis

showed students were keen to make use of the e-textbook than printed textbooks. Nevertheless, the outcome showed that students revealed the desire to choose which textbook to use. University students are well informed of their specific requirement and liking regarding studying and education. Hence, they desire to have the choice to the type of textbook that will be most beneficial to their specific requirement and not what will suit the lecturers need. Falc also put forward the following:

Educators can explain the pros and cons of each textbook feature inclusive of the feasible complex problems that can happen on day one of the class, so students can decide for themselves having prior knowledge and prepare for achievements. This statement strengthens the point that the lecturers and students play a crucial role in a student's achievement while making use of a textbook as the major studying resource. Lecturers and students are required to be well informed of the pros and con features of all kinds of textbooks to comprehend which type is most beneficial to them and decide based on this knowledge.

Wilson, Zygouris-Coe, Cardullo, and Fong (2013) discussed how teachers should teach students about the use of digital textbook with an approach that encourages both a helpful and favourable learning habitat. Researchers believe that a student's attitude and opinion towards the use of e-textbooks (digital) for certain classes is a misconception the student may have about e-textbooks (digital).

Furthermore, Wilson *et al* (2013) stated that to create a twenty-first century classroom means to help prepare students to live and work in a technologically advanced world with the aim of helping the students become critically intellectual, long-lasting learners , problem solvers and collaborators. Wilson et al (2013, p. 17). They also posited that university students are well informed of the critical development in technology and the changes taking place globally. It is therefore important that students are given the chance to make use of e-textbooks to possibly prepare them for whatever they will ultimately face outside of college. Educators who are given the chance, the required method and recommendation, would motivate the students to grow confident with the current features of studying digitally and assist them in being more affluent (Wilson *et al.* 2013)

Yamson, Appiah and Tsegah (2018) carried out a research on electronic versus printed resources: preference, perception and usage among university undergraduate students. The research showed that the students preferred e-textbook and it was the most utilized as the students prefer their resources from online especially in academic searches. The students also liked the idea of a quick copy and paste for their assignment purpose. The ease of use, accuracy

and consistency was also part of the reason why the students preferred e-textbook. Nevertheless, there is still a high show of interest in printed textbook as well.

Also, e-textbook resource allows for a wide range of access opportunities that you cannot get from the traditional environment including 24/7 access, remote access, and having multiple users utilizing a single resource.

Abaci, Brckalorenz and Quick (2019) carried out a study on examining students' use of, preference for, and learning with e-textbooks. Their study showed that students enjoyed using e-textbooks especially its interactive features. The students expressed that the e-textbook had contributed to both learning and completion of their coursework. They also liked the fact that they could download and print from it.

Students also expressed a strong preference for e-textbooks because of its key word search which was easy to use when searching for a particular word and also a potential time saving resource as opposed to the printed textbook which consumes a lot of time while searching for a specific word. Also, the interaction of this e-textbook feature with the students perceived performance provides a productive indicator as to the students' commitment to their material and learning result.

2.11. THEORETICAL FRAMEWORK

Dillon and Morris, (1996) explains user approval as the clear desire of an end-user class to use information technology to support tasks it is intended for. Models and theories have been brought up to reveal factors that impact the use of e-textbooks or traditional textbooks. These factors span from an individual's attention on the technology itself to the individual's psychological attributes (Dillon and Morris, 1996). Due to the concern as to why a student would decide to make use of either the digital textbook or traditional textbook, a single-variable description cannot account for the decision made. Hence in order to understand students' preferences, numerous theories have been developed. The decision of the students to use e-textbook or traditional textbooks is a complicated process which involves numerous influencing factors. This research intends to draw from two adoption theories and to evaluate how these theories can help bring meaning and understanding as to why either the e-textbook or the traditional textbook is chosen by an individual. Hence, the Technology Acceptance Model (TAM) is being adopted for this study and also the Innovation Diffusion Theory (IDT).

2.11.1 TECHNOLOGY ACCEPTANCE MODEL

Technology Acceptance Model (TAM) has a rather dissimilar focal point in opposition to Rogers's Diffusion Model. Its concentration is also on a particular type of innovation and not

just the particular type of adoption environment. The TAM focus is on perceived ease of use (PEOU) and usefulness (PU) of the change recognized by the wilful person. Two variables are used to ascertain the probable adoption of innovation. Research has shown that nearly 50% of the variance in acceptance level can be explained by the TAM models (Davis, Bagozzi, and Warshaw, 1992). Huang Lin and Chuang (2007) showed that in terms of establishing adoption, the TAM model worked well.

The fundamental design of TAM has been analysed and enlarged in varieties of IT innovations. Chen and Barnes (2007) discovered that perceived ease of use and perceived usefulness significantly predict Attitude. Chau and Hu (2001) have shown that an attitude regarding using a technology significantly determines Behavioural intention.

Perceived usefulness (PU) can be explained as the magnitude to which an individual assumes utilisation of a certain method to increase their performances in their jobs (Davis, 1989). In addition, perceived usefulness is a function of perceived ease of use.

Perceived ease of use (PEOU) can be explained as an extent to which an individual assumes utilisation of a certain method that requires no efforts (Davis, 1989).

Attitude is ones (good or bad) feeling either about executing the target behaviour (Davis 1989).

The validity of TAM from research works above has led to the upcoming hypothesis:

Hypothesis 1: Perceived usefulness impacts Behavioural intent to use e-textbooks

Hypothesis 1a: Perceived usefulness impacts attitude to use e-textbooks

Hypothesis 2: Perceived ease of use affects Behavioural intent to use e-textbooks

Hypothesis 2a: Perceived ease of use affects Perceived usefulness to use e-textbooks

Hypothesis 2b: Perceived ease of use affects attitude to use e-textbooks

Hypothesis 3: Attitude affects Behavioural intent to use e-textbooks

2.11.2 DIFFUSION OF INNOVATION THEORY

Innovation diffusion theory by Rogers (1983) speculates that recognized attributes of a change, influences the adoption behaviour of a user. Compatibility and Complexity are perceived characteristics. Rogers (1995) states that 49-87% of the variation of innovations adoption can be demonstrated by these variables.

Compatibility can be explained as the extent to which an innovation can be seen as constant with the continuous merits, wants, and potential of adopters past experiences (Rogers 1995)

Complexity can be explained as an extent to which an innovation is being seen as difficult to comprehend (Rogers 1995)

The validity of innovation diffusion theory from the research works above has led to the following hypothesis:

Hypothesis 4: Compatibility impacts Behavioural intent to use e-textbooks

Hypothesis 4a: Compatibility impacts perceived usefulness to use e-textbooks

Hypothesis 5: Complexity impacts Behavioural intent to use e-textbooks

Hypothesis 5a: Complexity impacts attitude to use e-textbooks

2.113. FRAMEWORK

Derived Framework

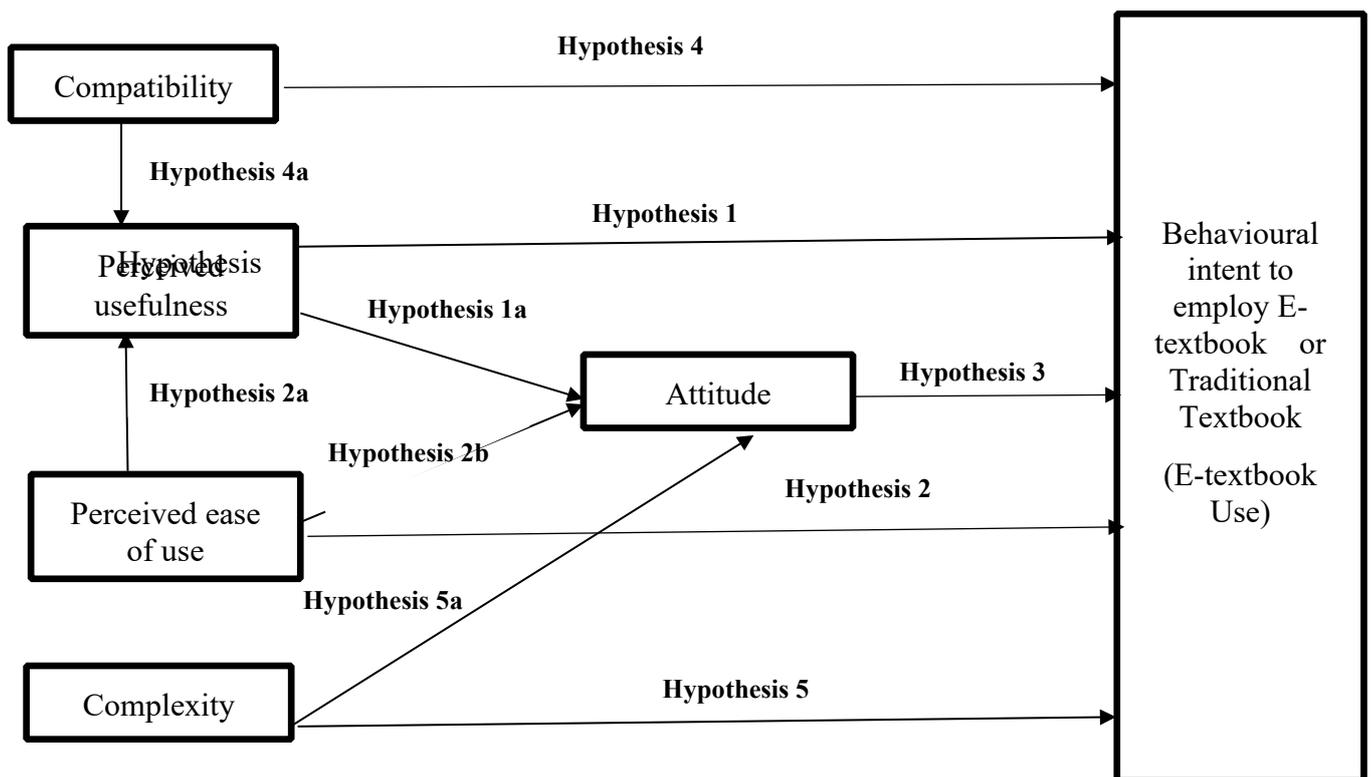


Figure 1: Conceptual Framework

2.12. HYPOTHESIS AND LITERATURE REVIEW

Table 1: Hypothesis and literature review

Hypothesis	Literature Review
Hypothesis1: Perceived usefulness impacts Behavioural intent to use etextbooks	The increase in technology has caused the use of the electronic device for reading purposes to become popular (Hue, Rosenfeld and Saa, 2014).
Hypothesis1a: Perceived usefulness impacts attitude to use e-textbooks	Due to technological advancements, the student continuously educates themselves more independently. They have begun utilising new learning strategies which involve electronic devices. (Kerrs and Symons, 2006)
Hypothesis 2: Perceived ease of use affects Behavioural intent to use etextbooks	If a text is shown to a student in a way that fits his learning style, the student will most likely be inclined to finish his assignment as well as be successful in his reading. (Landrum et al, 2012)
Hypothesis 2a: Perceived ease of use affects Perceived usefulness to use etextbooks	E-textbook resource allows for a wide range of access opportunities that you cannot get from the traditional environment including 24/7 access, remote access, and having multiple users utilizing a single resource. (Yamson, Appiah and Tsegah , 2018)
Hypothesis 2b: Perceived ease of use affects attitude to use e-textbooks	The ease of use, accuracy and consistency was also part of the reason why the students preferred etextbook (Yamson, Appiah and Tsegah , 2018)
Hypothesis 3: Attitude affects Behavioral intent to use e-textboks	Jolliffe and Harl (2008) also discovered that when a text is particularly technology-based, the student frequently interacts confidently with the text.

Hypothesis 4: Compatibility impacts Behavioural intent to use e-textbooks	The students enjoyed using e-textbooks especially its interactive features. The students expressed that the e-textbook had contributed to both learning and completion of their coursework. (Abaci, Brckalorenz and Quick, 2019)
Hypothesis 4a: Compatibility impacts perceived usefulness to use e-textbooks	Due to the multi-tasking capabilities while reading from a device, students prefer reading via technology. (Jolliffe and Harl ,2008)
Hypothesis 5: Complexity impacts Behavioural intent to use e-textbooks	Jones and Brown (2011) stated that the students favour the digital textbook more because of its unique attributes such as its capability to find definitions, word articulation, automated pageturning and the read-aloud option
Hypothesis 5a: Complexity impacts attitude to use e-textbooks	Students also expressed a strong preference for etextbooks because of its key word search which was easy to use when searching for a particular word and also a potential time-saving resource as opposed to the printed textbook which consumes a lot of time while searching for a specific word. (Abaci, Brckalorenz and Quick, 2019)

2.13.CHAPTER SUMMARY

There are varying aspects of the task of reading a textbook (for university students). Understanding the textbooks depends on the student's preference of a textbook, and the influence it has on a student is essential in evaluating the different textbook types and in deciding a suitable condition to make use of them. Both e-textbooks and printed textbooks give various features, useful for various studying approaches and aims. Making use of the right type of textbook and the most effectual studying method will preferably improve the understanding of the necessary material and (productively) impact the understanding of the student.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. INTRODUCTION

Welman, Kruger, and Mitchell (2005) explained research methodology as a framework of research which details the methods and strategies to be utilised for data gathering. Krauss (2005) considered research methodology as a framework for gathering, measuring, and examining data to accomplish the purpose of research. Hair, Celsi, Ortinau, and Bush (2008) observed that the quality of gathered data shows the strength of the methodology used to assemble them. An acceptable method used to gather data makes certain that the reliability and validity of the research will not be jeopardised.

Burns and Burns (2008) described research methodology as a normal term used for the organised procedure of executing a study. It is used to gather knowledge and data which are required to solve the research questions of a particular subject matter and make to unquestionable decisions. Zikmund and Babin (2010) stated that “the segment of research methodology is the part and portion of the body of the research report that indicates the order used to get the findings of the research project.”

This chapter describes the methodology that was utilised to test and examine the hypothesized relationship as put forward in the literature review to respond to the research questions. The discourse explains the research design, sampling method, the design of the research instrument, the technique for data collection, data analysis method and interpretation, validity and reliability of the research, limitation and ethical consideration

3.2. WHAT IS RESEARCH?

Research can be explained as “something people embark on to discover things methodically thereby expanding their understanding (Saunders, Lewis, and Thornhill, 2019). According to Walliman (2017) research is “discovering things that no-one else was aware of. It is about furthering the boundaries of knowledge. The descriptions above emphasized two important words, namely: “methodical” and “discovering things”.

Research can be explained as a way of thinking and within this thinking frame, observations are questioned, efforts are made to learn more about , explain and understand your observations and come to conclusions that improve your knowledge (Kumar, 2019). Research brings about

an analytical way of thinking in you and having a knowledge of research methodology supplies you with the techniques to find answers to your research questions (Kumar, 2019). Baxter and Jack (2008) noted that an attentive organized research proves and guarantees that the results can be counted on and accepted.

3.3. RESEARCH PARADIGM

Paradigm can be explained as a common assembled structure for thesis and research that comprises of basic presumption, crucial matters, representation of standard research and way of finding out answers (Neuman, 2014). Paradigm can also be explained as a shared global perspective that portrays opinions and merit in a subject and that influences how issues are resolved (Schwandt, 2014).

In this research, the research paradigm used was Positivism. Positivism refers to a philosophical point of view of the natural scientist and requires working with observable social reality bring about law-like generalization. It guarantees clear and precise knowledge and stems from the early 20th century philosophers called the Vienna circle (Saunders, Lewis and Thornhill, 2019). Positivist emphasises on strictly scientific procedure designed to yield pure data and facts unaffected by human interpretation or prejudice.

Positivism permits the use of existing theory to form hypotheses. These statements give hypothetical interpretations that can be tested and established in parts or as a whole, resulting in further creation of theory which may then be investigated by researchers in future. (Saunders, Lewis and Thornhill, 2019). Positivism paradigm presumes that precise observation and evaluation are confirmable and the methods of collecting data are normally questionnaires, investigation, monitoring and experiments. Positivism is made up of confirmation of the hypothesis, examinations and experiments; it is further inquisitive with assisting theories instead of creating new ones (Cooper, and Schindler, 2014).. A positivist must remain neutral and unbiased from the data and the research to avoid being biased about your findings (Saunders, Lewis and Thornhill, 2019).

The positivism paradigm will be utilised in this research because it permits hypothesis testing and theory establishment for examination and also utilising questionnaires to ascertain elements that influence e-textbook preference.

3.4. RESEARCH DESIGN

Research design can be explained as a design that is used to collect, assess and investigate the data which is structured on the essence of the research study (Sekaran and Bougie, 2016). Research design is the 'blue print' to give guidance and insight into the study's investigation purpose. It involves documentation of statistics, the basis for the choice of these documentations, how the information will be gathered, entry and moral matters, and examining of statistics gathered (Bryman and Bell, 2011)

Singh (2007) explained research as a credible idea, an arrangement and a research scheme of examination, to recover and give answers to research questions and issues and to influence variables. It is also explained as the complete design to connecting conceptual investigation problems to the applicable and attainable practical research (Kumar, 2019).

In agreement with the above explanation, Zikmund and Babin (2010) explained research design as a blue print that points out the techniques and ways that are utilised to gather and examine the required information. It is used to shape research and to demonstrate how all the crucial pieces such as sampling, data gathering, and data examination were aimed at tackling the research questions (Zikmund and Babin, 2010).

Research design is accountable for the delivery of required responses to questions like: what method will be utilised to collect data, what sampling method will be utilised etc. Zikmund and Babin (2010) suggested that the option of research design occurs mainly on the essence of the study, research surrounding, feasible limitations, and the fundamental paradigm that comes before the research project.

According to Bryman and Bell (2011), there are five common research design types, namely. experimental, cross-sectional or social survey, longitudinal, case study and comparative.

1. The experimental design is mostly utilised in a discipline and barely utilised in social sciences, because of lack of capability to manage human and managerial conduct as would be feasible in tests. Experiments are mainly done in research labs or surroundings where elements could be managed conveniently for the experiments being conducted.
2. Cross-sectional design permits the gathering of information from multiple origins at a precise schedule to create quantitative data for examination. Criteria are requested, and information acquired, utilising questionnaires or arranged interviews.

3. Longitudinal design involves utilisation of questionnaires and meetings to collect data from matching variables across a time frame. The purpose is to record developments or alterations that have happened over these intervals.
4. Case study design is suitable for a research to ascertain to what degree and for what reason the questions are being asked. The occurrence, circumstances and conduct of the participants are recorded, hence giving extensive information.
5. Comparative design can be implemented where there are more than two occurrences for examination. It gives room for collation to be carried out inside and across the subject; though transparency is needed in the full measurement of the examination (Bryman and Bell, 2011).

A case study design will be used for this study.

3.5. METHODOLOGICAL APPROACHES (RESEARCH METHODS)

3.5.1. QUANTITATIVE METHOD

The quantitative method in a study is the examination of an occurrence using the analytical, mathematical, and computational method. It seeks to analyse occurrence(s) into quantifiable terms to allow examination to either experiment or draw up a hypothesis or to start a prototype (Creswell and Creswell, 2017).

The capability to dismantle observations, questionnaires or whatever instrument was utilised in the gathering of the information and to interpret them into figures that are examined statistically or numerically is crucial. Quantitative methods in studies are considered to support dependable and widespread of a research to a bigger population (Farquhar, 2012).

Burns and Burns (2008) gave some advantages and disadvantages of utilising the quantitative method. Some of the advantages are: precision because of dependable technique, the capacity to investigate utilising advanced instruments, reliability and replicable, which is having the skill to acquire the same information elsewhere and utilising a similar method for analysis. A few disadvantages were also discovered: the inability to record part of the people in the investigation, the inability to manage every variable resulting in the distorted examination, and its rationalisation may not be accurate overall. The Quantitative method was used in this study.

3.5.2. QUALITATIVE METHOD

The qualitative method in a study is the examination of social occurrence(s) with the purpose of acquiring an extensive comprehension of human conduct in a particular setting (Farquhar, 2012). Qualitative research aims to find definitions and inspiration for the conduct and also a rigorous report of behavioural elements and involvement via investigator's experience with people's activity, words and thoughts (Mariampolski, 2001). Likewise, Neergaard and Ullh (2007) discovered that "qualitative research aims to develop ideas that increase the comprehension of social occurrence in natural surroundings, with due stress on the definitions, encounters, and perceptions of all participants".

Researches are generally conducted with focused samples of the research objectives or questions that need a response. Several methods could be utilised in the data collection such as interviews, documentation, reflexive journals and discoveries. A few advantages and disadvantages of utilising qualitative method was given by Burns and Burns (2008) such as: the capacity of the investigator to be engrossed in and to record things or else they would be lost; the last output puts an occurrence in an arrangement that can be read and comprehended by all involved, and letting 'voices to be heard' and to make certain that context is recorded in the examination of data (Pittaway and Thorpe, 2012). A few disadvantages are: the investigators effect could make research distorted, resources in form of time and others could be great, the investigator's perspective could influence the outcome, and there are always questions about the authenticity and rationality (Creswell and Creswell, 2017).

Maxwell (2010) described the utilisation of figures in qualitative research as reasonable and agreeable to complement the total procedure of the research, and that its utilisation does not make a study mixed-method research. Bryman and Bell (2007) also provided a perception of obstacles encountered in combining several sources and kinds of data. This is mostly because the investigations are not being done meticulously and the incapability to connect outcomes of information comprehensively together at the close of the research. Further clarification was that this can be controlled by being cautious at the 'planning phase' of the study methodology and also a careful explanation of outputs.

Hartas (2010) brought to attention two methods in which a theory can be seen in qualitative research as: "a priori theorizing and a pragmatic theorizing". In 'a Priori' theorizing, 'hypothesis and hypothetical conceptions are detailed before data' while for pragmatic theorizing, "systematic inceptions and frameworks are developed through data examination'.

It was further emphasized that the two methods could exist separately or jointly in research. The investigators' attention should be on recognizing which attribute falls into either of these.

The elements of these two can be examined further for a study whose method is 'a Priori'. It will comprise of “well-explained hypothesis aims, detailed concepts for inspection and consideration on and identification of the procedures of pursuing examination utilising those concepts”. For a study whose method is ‘pragmatic’ the sole dependency on data is crucial while every attempt must be made to avoid former ideas and opinions.

3.5.3. MIXED METHODS

The mixed method research is ‘an emerging research method in the health and social sciences that includes uniting both the statistical movement and stories to research human and social issues’ (Creswell and Creswell, 2017). The utilisation of mixed methods allows qualitative data to increase statistical data and stories of the lives of people to be placed side by side with figures allowing access to the full picture. Research questions push the data gathered qualitatively and quantitatively and a cautious combination of these throughout the analysis utilising meticulous mixed-method research design (Creswell and Creswell, 2017).

The mixed method has the advantage of bringing the power of both qualitative and quantitative method to support the research but there is the problem of establishing a unique theoretical technique (Flick, 2018). Flick further pointed out that in mixed-method, ‘view the research plans individually but side by side relying on the problems and the research questions. A few of the advantages of the mixed methods are: triangulation of both qualitative and quantitative methods which removes the disadvantages of both; generalisability might be effortless, and they could be handy at different stages of the research study (Creswell and Creswell, 2017).

The option of mixed-method must be prompted by the study questions, literature and its capability to add to knowledge if followed. It must be seen that merging both kinds of data yields something of worth that either of them cannot tell completely. It is considered that the research must be formulated within a bigger framework (Creswell and Creswell, 2017).

3.6. POPULATION AND SAMPLING METHODS

3.6.1. POPULATION

Burns and Burns (2008) explained population as the comprehensive collection of all the survey interest which could be people, events or objects to the investigator. This explanation is

supported by Hair et al (2008) who explained population as the recognizable set of interests to the investigator which is crucial for the data issue. It includes recognizing the survey group which is under research. The population also refers to the overall group of people or all components about which data is required. (Cant, Gerber-Nel, Nel, and Kotze, 2005).

Cooper and Schindler (2006) explained population as the research objects which involves individuals, groups, organisation and events; these could be the subject matter of the research focus or the situations to which they are exposed. They observed that population is the overall gathering of components in which deduction and conclusion can be made. The defined population needs to be straight forward to obtain a precise sample size.

The study will be conducted in Midrand, South Africa. The South African educational system starts from primary to secondary then tertiary which is the highest level. This research focuses on a private tertiary institute in Midrand, South Africa. The target population to be used is the undergraduates of the division of Information Technology (IT) of Pearson Institute, Midrand and this is because the utilisation of both traditional textbooks and E-textbooks is in full force at the Pearson Institute, Midrand, hence making it the perfect target population to conduct this research.

3.6.2. SAMPLE

The sample is explained as a small section of a population with similar features as those in the entire population. Welman et al (2005) stated that a representative sample refers to a small image or small class of a particular population. Bryman and Bell (2011) proposed that in every research business, a sample is obtained from the overall population as a representative of that population. Zikmund and Babin (2010) highlighted sampling aims to generalise or deduce about the overall population which is reasonable and enables predictions. Although, many authors are of the view that sampling permits the investigator to make a deduction about the overall population as it is impossible to note all relevant occurrences in the population as a result of time and cost.

Zikmund and Babin (2010) further proposed that a series of actions must be ascertained before the investigator chooses the sample, this begins from determining the subject population, to choosing a representative sample size and frame, defining the sampling method to be utilised, recognizing the sampling processes, choosing the clear-cut sampling unit and carrying out fieldwork.

3.6.2.1. MERITS OF SAMPLING

Some of the merits of the sampling procedure are listed below:

- ❖ It helps to decrease research cost
- ❖ It yields greater reliability results
- ❖ It encourages greater speed in data gathering
- ❖ It guarantees the accessibility of population elements

3.6.2.2. SAMPLING PROCEDURE

Parasuraman , Grewal, and Krishan (2007) described the sampling procedure as the method utilised by the researcher in choosing a representative sector of the population for the survey. Researchers favour utilising the sampling method rather than the overall population because it is unthinkable and very costly to survey the whole population. Sampling methods consist of two types namely probability sampling and non-probability (purposive) sampling procedures. Brown, Suter and Churchill (2013) stated that probability sampling is a sampling procedure in which every component has an equal possibility of being chosen while in non-probability (purposive), sampling makes it known that the choice of sample component is based on the discernment of the investigator.

The non-probability (purposive) sampling was chosen for this research because the researcher had a particular motive in mind. (Neuman, 2014). Non-probability sampling was selected for this research because this study aims to assess whether the IT undergraduate students of the university prefer printed textbooks or digital textbook (e-textbook).

3.6.2.3. SAMPLE SIZE

Cant et al (2005) stated that sample size can be defined as the entire number of components incorporated in the research. It means the number of respondents which should be incorporated in the research and this is considered very crucial for any study because the sample size drawn influences the standard and generalization of data (Cant et al, 2005). Sample size decreases the likely mistake of generalizing a population. Thus, a sample size chosen and used in research should be big enough to make certain that an authentic and reasonable conclusion can be drawn about the population (Churchill and Iacobacci, 2010). To get a precise result from a research, statisticians suggest that a simple size bigger than 40 is perfect, even though it doesn't apply to all studies.

The selection basis for this study includes 3rd-year students from the department of Information technology at the Pearson Institute Midrand because they have access to and make use of both the e-textbooks and the printed textbooks and have experienced both for up to 3 years and understand how both works including the pros and cons. Thus, making them the perfect and sufficient sample to be used and also due to the coronavirus (COVID-19), I would not be able to extend the study as there is a nationwide lockdown in place. The Information Technology Department has about 500 students. The sample size used here will be the 3rd year students of the Department of Information Technology of Pearson Institute Midrand which is a total of 80 students.

Minor sample size comprises of a population $n \leq 30$ which is regarded as too small to be used but having a population of $n \geq 80$ is a more reliable sample size as it's a large population (Sekaran, 2016). For this research, the Raosft sample size calculator was utilised to evaluate the proposed sample size and it was 7% margin of error, 95% confidence level and 50% response distribution. Having a complete population of 500 students, using the Raosoft sample size calculator, the recommended sample size was 142 respondents. The Raosoft sample size calculator is a statistical software package that allows researchers to discover their sample size when shown the variables.

Only the 3rd year students of Information Technology department who made use of both etextbook and printed textbooks were allowed to fill the questionnaires. The table below sums up the expected survey features:

Table 2: Sampling Summary

Variable	Description
Target population	Students of the department of Information technology at Pearson Institute, Midrand.
Population size	500
Target sample size	142
Final Sample size	80
Sampling unit	Private University
Sampling error (confidence level)	95%
Respondents	3 rd year students of the Department of Technology at Pearson Institute who make use of both e-textbook and printed textbook.

3.7. THE RESEARCH INSTRUMENT

Questionnaires are seen as crucial instruments to gather suitable data from respondents. Kumar (2019) explained questionnaires as a written item of questions, response or statement to which the respondents answer. Questionnaires are survey approach that makes use of a systemised set of questions, which permit respondents' response to be methodically compared or contrasted. Questionnaires must be designed meticulously to guarantee transparency. The questionnaire questions may be tailored to calculate various responses. For instance, (true/false) and interval replies (i.e. Likert scale) or semantic varying answers ('sometimes' or 'always'). In questionnaires, respondents are required to read the questions, translate what is required, and then write down the answers (Trochim, 2000).

For this research, the self-administered questionnaire was utilised as the data gathering instrument. Self-administered questionnaires are considered to be the most affordable way of collecting data from a large number of respondents rather than other data collection instruments such as personal interviews or links. It is cost-friendly in terms of time and money. Questionnaires requires a direct meeting between the respondent and the researcher (Lavrakas, 2008).

In this study, the researcher chose a structured questionnaire. Structured questionnaires comprise of open and closed-ended questions. The closed-ended questions supply a set of prearranged responses from which the respondents have to select an applicable response. While some of the questions require one to explore their textbook types, most of the questions are chosen to get suitable information regarding the student's preference for e-textbooks and the influencing factors as such. In this study, a survey questionnaire was used to gather data because of its various merits and its capability to produce the most adequate range of authentic data.

The research instrument comprises of 39 questions (Part A: 10 Questions and Part B: 29 questions). This thesis got its questions mainly from existing scales established by other investigators, and by utilising it reduces low external validity risk and also to assure a more effective reliability of the research instrument. In THOs all statements were evaluated using a 5-point Likert scale ranging from 1(strongly agree); 2 (Agree); 3 (disagree); 4(strongly disagree); and 5 (undecided); and the responders evaluated each of them in the expression of their accordance with the statements.

The use of a questionnaire was employed for this research to collect all the required and relevant information. This technique was used to help reduce information collection problems and to ensure that the results of the questionnaires are available. The questionnaire consists of two parts; A and B. The first part (A) contains 10 questions which address the demographic data of the respondents which contained their age, gender, awareness of e-textbooks as well as their preferred textbooks, while the second section (B) contains 29 questions which address the variables being investigated, i.e. the constructs: Perceived usefulness, Perceived ease of use, Attitude, Complexity and Compatibility.

3.8. PROCEDURE FOR DATA COLLECTION

The questionnaire was personally handed out and administered to the respondents (3rd-year students) of the Information Technology department of Pearson Institute, Midrand by me. Before each one of them filled the questionnaire, I explained to them about my research and what it's all about and also the procedure and how they each needed to sign a consent form. I made them understand their participation was voluntarily and not compulsory and that they were free to withdraw at any time. After an initial explanation, the questionnaires were filled by the respondents without any interruption from the researcher, unless responders needed assistance on specific questions. About 70% of the response was recorded early in November and the rest, 30%, early in February.

3.9. DATA ANALYSIS AND INTERPRETATION

According to Osuala (1982), analysis is defined as the ordering and breaking down of data into constituent parts. First a preliminary assessment of the data is conducted, then the data is cleaned and transformed, and the descriptive statistics are presented. The hypotheses are now tested and analysed in phases, first a cross tab of the demographic variable was done, Cronbach alpha, correlation and regression were conducted to evaluate the proposed hypothesis.

Reliability and validity test was also conducted.

3.9.1. DATA CLEANING AND TRANSFORMATION

The following steps were taken to transform and clean data:

1. The filled questionnaires were all gathered together
2. Data were imported into SPSS (Statistical Package for Social Sciences)
3. Transformed functions in SPSS were used to code data
4. No missing responses were found

Data were coded using the Likert scale questions in a way that allowed for 1 (strongly disagree); 2 (disagree); 3 (neither agree nor disagree); 4 (agree) and 5 (strongly agree). The influence of a missing data in a research can be important because it can lead to a skewed judgement of parameter, decrease statistical capacity and decrease the generalisability of the findings(Dong and Peng, 2013).

3.9.2. DESCRIPTIVE STATISTICS

Descriptive statistics consist of measures of balances (i.e. the standard deviation and mean), administration, and outspread of variables, as well as the results of the questionnaire will be presented in figures and table forms. Field (2013) explained mean as the average outcome which in this setting is the average administration of replies for a specific variable while standard deviation is explained as the average variation from the mean amidst the replies. Descriptive statistics can be explained as statistically depicting and describing the relationship between the ideas of concern (Bhattacharjee, 2012). Descriptive statistics were collected utilising the SPSS (Statistical Package for Social Sciences) and are considered as systematic data that represent sample features (Cooper and Schindler, 2014).

The study demographics of the respondents include gender, age, textbook preference, reason for textbook preference, e-textbook awareness, e-textbook usage time, e-textbook motivation, e-textbook difficulty, e-textbook influence on reading habit and course textbook usage. The descriptive statistics are shown in chapter 4.

3.9.3. CROSS-TABULATION

A cross-tabulation (or crosstab) report is utilised to assess the relationship amongst two or more variables (Momeni, Pincus and Libien, 2018). Cross-tabulation is crucial as it makes it easy to interpret data in such a manner that it gives clarity. Cross-tabulation analysis has its unique language, using words like “Chi-Square Statistic”.

The Chi-square statistic are the main statistic utilised for checking the statistical significance of the cross-tabulation table. Chi-square test decides whether or not the two variables are independent. If the variables are independent (have no relationship), then the outcome of the statistical evaluation will be “insignificant”, and we cannot dismiss the null hypothesis, meaning that we trust there is no relationship between the variables. If the variables are related, then the outcome of the statistical evaluation will be “statistically significant” and we can dismiss the null hypothesis, revealing that we can affirm that there is some relationship between the variables (Momeni, Pincus and Libien, 2018).

In a bid to gain clearer insights into specific patterns of the respondents' data, cross-tabulation was carried out between some of the variables, Cross-tabulated variables were also subjected to Chi-square analysis in a bid to test for significance in their respective relationships. Generally, the assumption is that non-significant p-values indicated lack of relationship or pattern between measured variables while significant p-values (i.e. p-values < 0.05) indicated significant relationships between measured variables. Cross-tabulation analysis is presented in Chapter 4.

3.9.4. CORRELATION

Correlation shows the magnitude to which two variables are interconnected (Somekh and Lewin, 2009). It also depicts the strength of association between variables in a linear relation and shows the magnitude in which one variable alters in relation to an alteration in the other (Somekh and Lewin, 2009). Correlation analysis is usually calculated by a correlation coefficient and the values are on a continuum of -1 to +1, with both sides displaying that the data embraces a flawless logical line (Somekh and Lewin, 2009).

An r value of 0.00 displays a non-existent relationship amongst variables; a negative r value portrays a hostile relationship and means that a rise in the value of one variable is connected with a decline in the value of another, while in the case of a positive correlation when the r value portrays a positive relationship it depicts that a rise in the value of one variable is accompanied by an increase in the other. (Somekh and Lewin, 2009). The magnitude refers to the strength of the relationship, Higher r values represent stronger relationships between the two variables. (Cohen, Cohen, West, and Aiken 2003).

In this research, Pearson correlation was utilised to test for existence and strength of relationships existing between the variable measured in this study, and to assess whether these relationships are headed in the right direction, which is imperative in the analysis (Baron and Kenny, 1986). Correlation coefficients indicate the degree and course of relationships, expressing information in the ways the variables have a connection with each other. The correlation analysis result is shown in Chapter 4.

3.9.5. REGRESSION ANALYSIS

To test the hypothesis, regression analysis is a strong statistical method that lets you analyse the relationship between two or more variables of interest. It investigates the effect of one or more independent variables on a dependent variable. Regression analysis is important because it can be used to examine the strength of the association between variables and to represent the future relationship between them. Regression analysis comprises of different types such as

linear, multiple linear, and nonlinear. For this research, simple linear regression was used. Simple linear regression can be explained as a model that evaluates the association between a dependent variable and an independent variable. (Douglas and Fitzsimmons, 2008).

The outcome of regression analysis is a framework summary that incorporates the Pearson correlation coefficient (R) and this coefficient indicates the strength of the relationship in such a way that the value near to 1 signifies a strong relationship while 0 signifies no relationship. When R-value is positive it indicates a relationship whereby the result variable rises when the predictor variable rises but when R-value is negative it indicates a relationship where the result variable decreases as the predictor variable rises. R^2 is the coefficient of determination and it approximates the predictive capability of the model and explains the amount of variance that the predictor variable describes. When p value is low or less than .05 then we have a statistically notable result (Field, 2013). When regression analysis is completed, the researcher will be able to describe the data and determine if the data corresponds with the hypothesis stated.

3.10. VALIDITY AND RELIABILITY OF RESEARCH

3.10.1. VALIDITY

Validity is considered as an instrument that truly measures what it plans to measure while reliability can be explained as to whether an instrument can be translated generally over various situations (Field, 2013). An instrument that shows validity is permitted to deliver accurate results and measure what it intends to measure. External validity explains the generality of the research choice population (Field, 2013) while internal validity explains the variable relationship to discover if they are authentic or not. There are several types of validity which include internal, external, content, criterion and construct validity.

Content validity shows the degree to which an instrument investigates the set phenomena (Schindler and Cooper, 2006), while construct validity can be explained as the extent to which the hypothesis constructs a link to each other to measure the concept assembled on theories embedded in the research.

3.10.2. RELIABILITY

Internal consistency is considered as one of the ways of assessing reliability. It can be explained as the accuracy of an instrument (Lobiondo-Wood and Haber 2013). It is also explained “as the extent to which measures are error-free and therefore produces consistent results” (Zikmund and Babin, 2010). To guarantee the reliability of this research, the questionnaires will be put through the Cronbach Alpha test for internal consistency and this will be carried out by using the reliability method in SPSS (Statistical Package for Social Science)

The scores of Cronbach alpha varies from 0 to 1, the closer the score gets to 1, the more suitable the construct's internal reliability. However, it is widely assumed that a justifiable value of at least 0.7 makes a construct considered to be good or dependable (Hair et al., 2008; Field, 2013), and if the score reflects 0 its lacks stability. Reliability consequently indicates the trustworthiness of a specific instrument (Blanche, Blanche, Durrheim and Painter, 2006). The outcome of the reliability analysis is presented in chapter 4.

3.11. LIMITATIONS OF THE STUDY

This study will be established on the preference of students (3rd-year students) which can limit the amount of data that will be collected and will utilise quantitative data alone. Thus, questionnaires will be utilised for this research because it's cost-effective and easy to gather information but also have a couple of setbacks. Cooper and Schindler (2014) stated a few limitations of using a structured questionnaire which applies to this study; e.g. only a certain number of questions can be asked, and complex information for example questions on feelings, attitude or beliefs cannot be effortlessly recorded and the problem of nonresponse and lack of proper comprehension of the questionnaire because respondents cannot be queried which leads to conflicting comprehension and answers on the questions (Sekaran and Bougie, 2016).

The limitations this research faced were: non-response or non-co-operation as well as the postponement of some of the responders, thus causing delays during data gathering. The study was limited to just Pearson Institute Midrand as it was a case study.

3.12. RESEARCH ETHICS

Cooper and Schindler (2014) described ethics as the criterias and standards to be followed so that no-one is hurt or endures adverse repercussion as a result of engaging in this research. This research was established on the ethical principles of confidentiality, fairness and integrity. The method and design and also the data that were gathered were explained honestly and free from fabrication, exploitation and falsification. The participants' consent was requested using a cover letter that explained the rationale for the research and requesting the completion of the questionnaire. Voluntary participation was guaranteed to every partaker and solid discretion existed to every information given.

To ensure confidentiality, questionnaires administered to the participants will preserve their anonymity and privacy. A written form of guarantee was made available stating that data gathered will remain private. The data is only accessible to the researcher and the researcher's

supervisor. The major ethical consideration is about respect for the participant and their confidentiality. Ethical clearance was obtained from Pearson Institute of Higher Education: Research Ethical Clearance No: **PIHE/2018/1408/01**. Ethical Clearance from the University of Kwazulu-Natal (UKZN): Protocol Reference number: **HSS/1298/018M**.

3.13. CHAPTER SUMMARY

The chapter supplied a clear explanation of the research paradigm and research design utilised in this research. The chapter consists of the details of the study population, sampling technique utilised, and research instrument chosen for this research. The chapter further supplied a comprehensive explanation of the instrument administration, data analysis procedure of the research using SPSS, as well as the test for validity and reliability. It also called attention to the ethical considerations utilised in this research. The limitations of the study were also explained in this chapter. The research outcomes and findings are shown in chapter 4.

CHAPTER FOUR

PRESENTATION OF FINDINGS

4.1. INTRODUCTION

This chapter will show the finding of the study established on the methodology that was summarised in Chapter 3. Primary data (Positivist Quantitative method) was gathered through a survey utilising structured questionnaires, which were administered personally by the researcher. The data was assessed using SPSS edition 24 software for the statistical analysis. The first segment of this chapter shows the respondents demographics, the second segment correlation analysis, and the last segment shows the regression analysis of the hypothesized relationships.

4.2. DESCRIPTIVE STATISTICS

The descriptive statistics that were utilised for this study (Part A: 10 questions) were: gender, age, textbook preference, the reason for textbook preference, e-textbook awareness, e-textbook usage time, e-textbook motivation, e-textbook difficulty, e-textbook influence on reading habit, and course textbook usage. Descriptive analysis was carried out to understand the simple features of the data. The frequencies are presented making use of descriptions such as tables and pie charts as they aid in depicting preference using noticeable data representation.

Demographic data can be explained as systematic data that displays sample characteristic. (Cooper and Schindler, 2014). With descriptive statistics researchers can also utilise mean and standard deviation to have a comprehensive report of the responses. Fields (2013) explained mean as the average score which in this setting is the average administration of replies for a specific variable while standard deviation is explained as the average variation from the mean amidst the replies. The descriptive statistics are shown below:

Question one

The first question asked the following: What is your gender? The two choices included male or female. Respondents were required to pick just one. A total of 80 out of 80 respondents answered this question. See Table 1 below for the total number of respondents and percentage for each gender choice. The mean for the gender respondent is 1.55 and the standard deviation is .501

Table 3

	Frequency	Percent
Male	36	45.0
Female	44	55.0
Total	80	100.0

Question two

The second question asked the following: What is your age group? The two choices include age 18-24 and more than 24. Respondents were required to pick just one. The entire 80 out of 80 responders answered the question. See Table2 below for the entire number of responders and percentage for each age group. The mean for age respondents is 1.41 and the standard deviation is .495

Table 4

	Frequency	Percent
18-24	47	58.8
More than 24	33	41.3
Total	80	100.0

Question three

The third question asked the following: Which of these textbooks do you prefer? The two choices included e-textbooks and printed textbooks. Respondents were required to pick just one. The entire 80 out of 80 responders answered the question. See Table 3 below for the entire number of responders and percentage for the textbooks. The mean for textbook preference respondents is 1.39 and the standard deviation is .490

Table 5

	Frequency	Percent
E-textbooks	49	61.3
Traditional (Printed) Textbook	31	38.8
Total	80	100.0

Question four

The fourth question asked the following: Why did you choose the specific textbook in the question above? The four choices included price, textual features, convenience and others. From the others which were an open-end and they were allowed to fill in the blank, we were able to draw an additional two choices namely portable and easy to access, and easy to read and highlight. The entire 80 out of 80 responders answered the question. See Table 4 below for the entire number of responders and percentage for the choice of the specific textbook. The mean for textbook choice respondents is 2.46 and the standard deviation is 1.101

Table 6

	Frequency	Percent
Price	16	20.0
Textual features	28	35.0
Convenience	24	30.0
Portable and Easy to access	7	8.8
Easy to read and Highlight	5	6.3
Total	80	100.0

Question five

The fifth question asked the following: Are you aware of the e-textbook installed on the tablet given to you by the university? Respondents had to choose either yes or no. The entire 80 out of 80 responders answered the question. See Table 5 below for the entire number of responders and percentage for the choice of the e-textbook awareness. The mean for e-textbook awareness respondents is 1.21 and the standard deviation is .412.

Table 7

	Frequency	Percent
Yes	63	78.8
No	17	21.3
Total	80	100.0

Question Six

The sixth question asked the following: For how long have you been using the e-textbook on your tablet for? The three choices included less than a year, a year and more than a year. Respondents had to choose just one. The entire 80 out of 80 responders answered the question. See table 6 below for the entire number of responders and percentage for the choice of the e-textbook usage. The mean for e-textbook use respondents is 2.34 and the standard deviation is .795

Table 8

	Frequency	Percent
Less than a year	16	20.0
A year	21	26.3
More than a year	43	53.8
Total	80	100.0

Question seven

The seventh question asked: What motivates you to use the e-textbook on your tablet? This question was an open question which means no choices and the respondents are therefore allowed to answer freely. The entire 80 out of 80 responders answered the question. See figure 7 for the answers given and their percentages.

Fig 2:

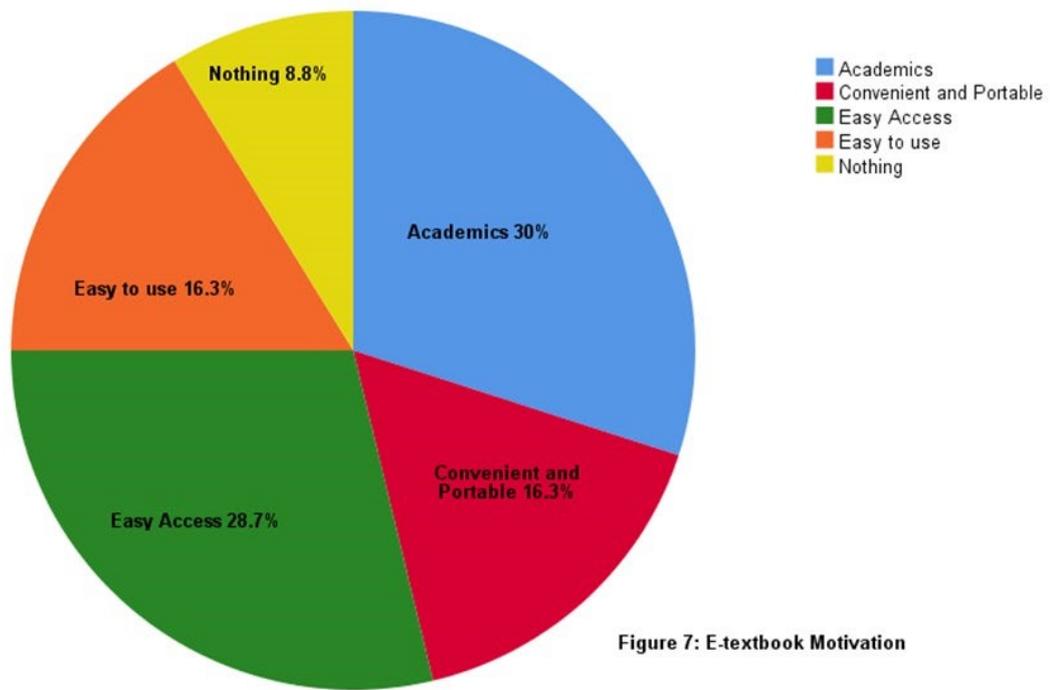


Figure 7: E-textbook Motivation

Question Eight

The eighth question asked the following: Do you find reading with e-textbook (digital) on your tablet difficult compared to traditional (printed) textbook.? Respondents had to choose either yes or no. The entire 80 out of 80 responders answered the question. Table 7 below shows the entire number of responders and percentage for the e-textbook reading. The mean for e-textbook reading respondents is 1.66 and the standard deviation is .471.

Table 9

	Frequency	Percent
Yes	26	32.5
No	54	67.5
Total	80	100.0

Question Nine

The ninth question asked the following: using the e-textbook on your tablet, how has it influenced your reading habits? Respondents were given three choices which are I read more, my reading habit is still the same, and I, read less. Respondents were required to choose just one. 80 out of 80 responded to the question. See Table 8 below for the entire number of responders and percentage for reading habit using e-textbook. The mean for e-textbook reading habit using e-textbook respondents is 1.45 and the standard deviation is .614

Table 10

	Frequency	Percent
I read more	49	61.3
My reading habit is still the same	26	32.5
I read less	5	6.3
Total	80	100.0

Question Ten

The tenth question asked: Which of the following textbooks do you use for most of your courses? Respondents were given two choices namely e-textbook or printed textbook. They were required to choose just one answer. See Table 9 below for the total number of respondents and percentage for textbook used for most courses. The mean for textbook used most for courses respondents is 1.34 and the standard deviation is .475.

Table 11

	Frequency	Percent
E-Textbook (Digital)	53	66.3
Traditional (Printed) Textbook	27	33.8
Total	80	100.0

Table 12: Descriptive statistics of respondents

	N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic
Gender	80	1.00	1.00	2.00	1.55	.501	.251
Age	80	1.00	1.00	2.00	1.41	.495	.245
Textbook Preference	80	1.00	1.00	2.00	1.39	.490	.240

Textbook Choice	80	4.00	1.00	5.00	2.46	1.102	1.214
E-textbook Awareness	80	1.00	1.00	2.00	1.21	.412	.169
E-Textbook Use	80	2.00	1.00	3.00	2.34	.795	.631
E-Textbook Reading	80	1.00	1.00	2.00	1.68	.471	.222
Reading Habit Using Etextbook	80	2.00	1.00	3.00	1.45	.614	.377
Textbook Course	80	1.00	1.00	2.00	1.334	.476	.226
Valid N (listwise)	80						

Section B

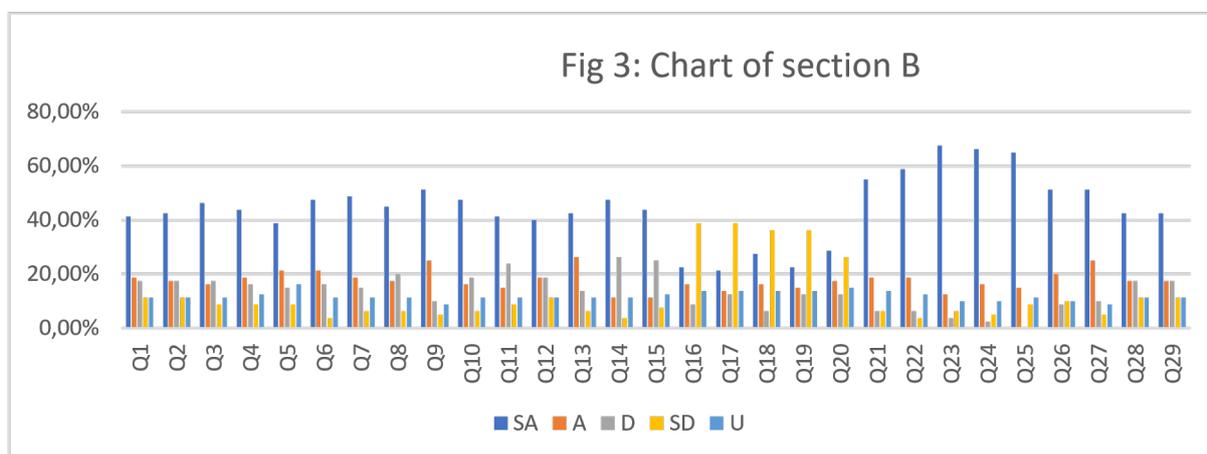
To what extent do you agree or disagree with the following statements concerning the e-textbook on your tablet. Please tick the most suitable appropriate option for yourself.

SA-STRONGLY AGREE A-AGREE SD-STRONGLY DISAGREE D-DISAGREE U-UNDECIDED

	SA	A	D	SD	U
Perceived Usefulness (PU)					
1. Using e-textbook (digital) increases learning productivity as oppose traditional (printed) textbook	41.3%	18.8%	17.5%	11.3%	11.3%

2. Using e-textbook (digital) enhances my learning effectiveness as opposed to traditional (printed) textbook	42.5%	17.5%	17.5%	11.3%	11.3%
3. Using e-textbook (digital) will encourage students to learn more as opposed to traditional (printed) textbook	46.3%	16.3%	17.5%	8.8%	11.3%
4.Using e-textbook (digital) gives me greater control over my academics	43.8%	18.8%	16.3%	8.8%	12.5%
5.Using e-textbook (digital) for learning would improve the quality of my education	38.8%	21.3%	15%	8.8%	16.3%
Perceived Ease of Use (PEOU)					
6. Studying with e-textbook(digital) is fun as opposed to traditional (printed) textbook	47.5%	21.3%	16.3%	3.8%	11.3%
7. Using e-textbook(digital) motivates me to explore topics I may not have seen before as opposed to traditional (printed) textbook	48.8%	18.8%	15%	6.3%	11.3%
8. Using e-textbook(digital) makes learning easier as opposed to traditional (printed) textbook	45%	17.5%	20%	6.3%	11.3%
9. e-textbook (digital) gives me access to my various courses anytime, anywhere.	51.2%	25%	10%	5%	8.8%
10. Studying with e-textbook(digital) is easier than traditional textbook	47.5%	16.3%	18.8%	6.3%	11.3%
Attitude					
11. I would feel more comfortable using e-textbook (digital) than traditional (printed) textbook	41.3%	15%	23.8%	8.8%	11.3%
12. Using e-textbook(digital) for learning is a pleasant experience as opposed to traditional(printed) textbook	40%	18.8%	18.8%	11.3%	11.3%
13. Using e-textbook (digital) makes learning interesting	42.5%	26.3%	13.8%	6.3%	11.3%
14. I feel competent to effectively handle etextbooks (digital) and the applications that come with it.	47.5%	11.3%	26.3%	3.8%	11.3%
15. I would feel comfortable with my lecturer using e-textbook(digital) to teach.	43.8%	11.3%	25%	7.5%	12.5%
Complexity					
16.Using e-textbook(digital) for learning purposes will require a lot of mental effort unlike traditional (printed) textbook	22.5%	16.3%	8.8%	38.8%	13.8%
17. Using e-textbook(digital) is quite frustrating unlike traditional (printed) book	21.3%	13.8%	12.5%	38.8%	13.8%
18. Learning to install and use the software that makes the use of e-textbook available will require a lot of time	27.5%	16.3%	6.3%	36.3%	13.8%

19. Using e-textbook will be too complex for our education	22.5%	15%	12.5%	36.3%	13.8%
20. I can operate my e-textbook(digital) to aid my learning if no one is around to show me how to use it	28.7%	17.5%	12.5%	26.3%	15%
Compatibility					
21. The use of e-textbook (digital) for learning will be compatible with all aspect of my academics	55%	18.8%	6.3%	6.3%	13.8%
22. Using e-textbook (digital) fits perfectly into my learning lifestyle unlike traditional (printed) textbook	58.8%	18.8%	6.3%	3.8%	12.5%
23. Using e-textbook (digital) for learning fits perfectly into Pearson Institute educational structure	67.5%	12.5%	3.8%	6.3%	10%
24.e-textbook(digital) is very portable and easy to carry around as opposed to traditional textbooks	66.3%	16.3%	2.5%	5%	10%
25.The e-textbook(digital) is very easy to access	65%	15%	0%	8.8%	11.3%
E-textbook use					
26. I use e-textbooks for majority of my assignment	51.2%	20%	8.8%	10%	10%
27.I use my e-textbook intensively (more than 2 hours daily)	51.2%	25%	10%	5%	8.8%
28. I use the diversity of tools made available in my e-textbooks	42.5%	17.5%	17.5%	11.3%	11.3%
29. I intend to continue using e-textbook for my learning	42.5%	17.5%	17.5%	11.3%	11.3%



4.3. CROSS-TABULATION OF DEMOGRAPHIC WITH CONSTRUCT FROM CORE VARIABLE

Table 13: Cross-tabulation between Respondents' Textbook preference and Perceived Usefulness of e-textbooks

PU		E-textbooks	Printed Textbook	Total
Positive	Count	36.00	13.00	49.00
	Percent	73.47%	41.94%	61.25%
Negative	Count	9.00	13.00	22.00
	Percent	18.37%	41.94%	27.50%
Neutral	Count	4.00	5.00	9.00
	Percent	8.16%	16.13%	11.25%
Total	Count	49.00	31.00	80.00
	Percent	100.00%	100.00%	100.00%
Chi-square value = 7.99; Sig(2-tailed) = 0 .018				

The table above shows cross-tabulation results between the perceived usefulness of e-textbooks and respondents' preference of textbooks. Responses related to *Perceived Usefulness* were recategorized into three dimensions namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree and Neutral = Undecided.

The table shows clearly that of the 49 respondents who preferred to use e-textbooks over their printed counterparts, the majority (77.74%) had a positive perception of the usefulness of e-textbooks. Besides, a considerable number of respondents (41.9%) who preferred printed textbooks also had a positive perception of usefulness regarding e-textbooks. The chi-square test aimed to show if there exists a relationship between the respondent's preference for the textbook and their perceived usefulness of e-textbooks. The chi-square test recorded a value of 7.99 and a p-value of 0.018 indicating a significant relationship between the variables.

Table 14: Cross-tabulation between Respondents' Textbook preference and Perceived Ease of Use of e-textbooks

PEOU		E-textbooks	Printed Textbook	Total
Positive	Count	40.00	15.00	55.00
	Percent	81.63%	48.39%	68.75%
Negative	Count	5.00	13.00	18.00
	Percent	10.20%	41.94%	22.50%
Neutral	Count	4.00	3.00	7.00
	Percent	8.16%	9.68%	8.75%
Total	Count	49.00	31.00	80.00
	Percent	100.00%	100.00%	100.00%
Chi-square value 11.60; Sig(2-tailed) = 0.003				

The table above shows cross-tabulation results between perceived ease of use of e-textbooks and respondents' preference for textbooks. Responses related to *Perceived ease of Use* were recategorized into three dimensions, namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree, and Neutral = Undecided.

The table shows clearly that of 49 respondents who preferred to use e-textbooks over their printed counterparts, the majority (81.63%) had a positive perception related to the ease of use of e-textbooks. Surprisingly, the majority of respondents (48.3%) who preferred printed

textbooks also had a positive perception of usefulness regarding e-textbooks. The chi-square test aimed to show if there exists a relationship between the respondent's preference for the textbook and their perceived ease of use of e-textbooks. The chi-square test recorded a value of 11.60 and a p-value of 0.003 indicating a significant relationship between the variables.

Table 15: Cross-tabulation between Respondents' Textbook preference and Attitude to use of e-textbooks

ATT		E-textbooks	Printed Textbook	Total
Positive	Count	39.00	10.00	49.00
	Percent	79.59%	32.26%	61.25%
Negative	Count	6.00	16.00	22.00
	Percent	12.24%	51.61%	27.50%
Neutral	Count	4.00	5.00	9.00
	Percent	8.16%	16.13%	11.25%
Total	Count	49.00	31.00	80.00
	Percent	100.00%	100.00%	100.00%
Chi-square value = 18.72; Sig(2-tailed) = 0.000				

The table above shows cross-tabulation results between perceived ease of use of e-textbooks and respondents' preference for textbooks. Responses related to *Attitude* were recategorized into three dimensions namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree, and Neutral = Undecided.

The table shows clearly that of 49 respondents who preferred to use e-textbooks over their printed counterparts, the majority (75.59%) had a positive attitude towards the use of e-textbooks. As expected, over half of the respondents (51.6%) who preferred printed textbooks had a negative attitude towards using e-textbooks. The chi-square test aimed to show if there

exists a relationship between the respondent's preference for the textbook and their attitude towards use of e-textbooks. The chi-square test recorded a value of 18.72 and a p-value of 0.000 indicating a significant relationship between the variables.

Table 16: Cross-tabulation between length of use of e-textbook and Perceived Usefulness of e-textbooks

PU		Less than a year	A year	More than a year	Total
Positive	Count	2.00	11.00	36.00	49.00
	Percent	12.50%	52.38%	83.72%	61.25%
Negative	Count	11.00	8.00	3.00	22.00
	Percent	68.75%	38.10%	6.98%	27.50%
Neutral	Count	3.00	2.00	4.00	9.00
	Percent	18.75%	9.52%	9.30%	11.25%
Total	Count	16.00	21.00	43.00	80.00
	Percent	100.00%	100.00%	100.00%	100.00%
Chi-square value = 28.37; Sig = 0.000					

The table above shows cross-tabulation results between the perceived usefulness of e-textbooks and how long the respondents have been using e-textbooks. Responses related to *Perceived Usefulness* were recategorized into three dimensions namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree, and Neutral = Undecided.

From the table, it is clear that across the three time-lengths measured in the study, the majority of the respondents had positively perceived usefulness regarding e-textbooks as regarding those who had used e-textbooks for more than a year (83.7%) and at least a year (52.3%). Respondents who reported using e-textbooks for less than a year mostly had a negative perception (68.7%) of e-textbooks.

The chi-square test aimed to show if there exists a relationship between how long respondents had been using e-textbooks and their current perceived usefulness of e-textbooks. The chisquare test recorded a value of 28.37 and a p-value of 0.000 indicating a significant relationship between the variables.

Table 17: Cross-tabulation between length of utilisation of e-textbook and Perceived Ease of Use of e-textbooks

PEOU		Less than a year	A year	More than a year	Total
Positive	Count	4.00	12.00	39.00	55.00
	Percent	25.00%	57.14%	90.70%	68.75%
Negative	Count	9.00	7.00	2.00	18.00
	Percent	56.25%	33.33%	4.65%	22.50%
Neutral	Count	3.00	2.00	2.00	7.00
	Percent	18.75%	9.52%	4.65%	8.75%
Total	Count	16.00	21.00	43.00	80.00
	Percent	100.00%	100.00%	100.00%	100.00%
Chi-square value = 25.83; Sig = 0.000					

The table above shows cross-tabulation results between the perceived usefulness of e-textbooks and how long the respondents have been using e-textbooks. Responses related to *Perceived Ease of Use* were recategorized into three dimensions namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree, and Neutral = Undecided.

From the table, it is clear that across the three time-lengths measured in the study, the majority of the respondents had a positive perceived ease of use regarding e-textbooks as regarding those who had used e-textbooks for more than a year (90.7%) and at least a year (57.1%). Respondents who reported using e-textbooks for less than a year mostly had a negative perception (56.2%) of e-textbooks' ease of use.

The chi-square test aimed to show if there exists a relationship between how long respondents had been using e-textbooks and their current perceived ease of use of e-textbooks generally.

The chi-square test recorded a value of 25.83 and a p-value of 0.000 indicating a significant relationship between the variables.

Table 18: Cross-tabulation between length of use of e-textbook and Attitude towards Use of e-textbooks

ATT		Less than a year	A year	More than a year	Total
Positive	Count	2.00	12.00	35.00	49.00
	Percent	12.50%	57.14%	81.40%	61.25%
Negative	Count	11.00	7.00	4.00	22.00
	Percent	68.75%	33.33%	9.30%	27.50%
Neutral	Count	3.00	2.00	4.00	9.00
	Percent	18.75%	9.52%	9.30%	11.25%
Total	Count	16.00	21.00	43.00	80.00
	Percent	100.00%	100.00%	100.00%	100.00%
Chi-square value = 25.45; Sig = 0.000					

The table above shows cross-tabulation results between Attitude towards the use of e-textbooks and how long the respondents have been using e-textbooks. Responses related to *Attitude* were recategorized into three dimensions namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree, and Neutral = Undecided.

From the table, it is clear that across the three time-lengths measured in the study, the majority of the respondents had a positive attitude towards the use of e-textbooks as regarding those who had used e-textbooks for more than a year (81.4.7%) and at least a year (57.1%). Respondents who reported using e-textbooks for less than a year mostly had a negative attitude (68.7%) to e-textbooks' ease of use.

The chi-square test aimed to show if there exists a relationship between how long respondents had been using e-textbooks and their current towards the use of e-textbooks. The chi-square

test recorded a value of 25.45 and a p-value of 0.000 indicating a significant relationship between the variables.

Table 19: Cross-tabulation between Reading Habits of Respondents and Use of etextbooks

USE		I read more	I read the same	I read less	Total
Positive	Count	35.00	15.00	1.00	51.00
	Percent	71.43%	57.69%	20.00%	63.75%
Negative	Count	13.00	10.00	4.00	27.00
	Percent	26.53%	38.46%	80.00%	33.75%
Neutral	Count	1.00	1.00	.00	2.00
	Percent	2.04%	3.85%	.00%	2.50%
Total	Count	49.00	26.00	5.00	80.00
	Percent	100.00%	100.00%	100.00%	100.00%
Chi-square value = 6.56; Sig = 0.161					

The table above shows cross-tabulation results between the use of e-textbooks and the current reading habits of the respondents. Responses related to *USE* were recategorized into three dimensions namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree, and Neutral = Undecided.

The table shows clearly that respondents (71.4%) who reported positive use of e-textbooks generally also reported that they read more than before. Similarly, 51.7% who reported positive use of e-textbooks reported that they read in the same manner as before. However, almost all (80%) respondents who responded negatively to the use of e-textbook reported that they read less than before.

The chi-square test aimed to show if there exists a relationship between the use of e-textbooks and reading habits of the respondents. The chi-square test recorded a value of 6.56 and a pvalue of 0.161 indicating a non-significant relationship between the variables.

Table 20: Cross-tabulation between Frequency of Use and Perceived Usefulness of etextbooks

PU		E-textbooks	Printed Textbook	Total
Positive	Count	42.00	7.00	49.00
	Percent	79.25%	25.93%	61.25%
Negative	Count	4.00	18.00	22.00
	Percent	7.55%	66.67%	27.50%
Neutral	Count	7.00	2.00	9.00
	Percent	13.21%	7.41%	11.25%
Total	Count	53.00	27.00	80.00
	Percent	100.00%	100.00%	100.00%
Chi-square value = 31.57; Sig = 0 .000				

The table above shows cross-tabulation results between Perceived Usefulness of e-textbooks and frequency of use of one form of a textbook over the other (i.e. digital over printed or vice versa!). Responses related to *Perceived Usefulness* were recategorized into three dimensions namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree, and Neutral = Undecided.

The table shows clearly that of 53 responders who used e-textbooks more frequently, the majority (79.2%) had a positive perception of the usefulness of e-textbooks. Furthermore, of 27 respondents who reported using printed textbooks more frequently majority (66.6%) reported negatively perceived usefulness of e-textbooks.

The chi-square test aimed to show if there exists a relationship between the frequency of use of textbook kinds and the current perception of the usefulness of e-textbooks amongst respondents. The chi-square test recorded a value of 31.57 and a p-value of 0.000 indicating a significant relationship between the variables.

Table 21: Cross-tabulation between Frequency of Use and Perceived Ease of Use of etextbooks

PEOU		E-textbooks	Printed Textbook	Total
Positive	Count	46.00	9.00	55.00
	Percent	86.79%	33.33%	68.75%
Negative	Count	2.00	16.00	18.00
	Percent	3.77%	59.26%	22.50%
Neutral	Count	5.00	2.00	7.00
	Percent	9.43%	7.41%	8.75%
Total	Count	53.00	27.00	80.00
	Percent	100.00%	100.00%	100.00%
Chi-square value = 31.99; Sig = 0 .000				

The table above shows cross-tabulation results between Perceived Ease of Use of e-textbooks and frequency of use of one form of a textbook over the other (i.e. digital over printed or vice versa!). Responses related to *Perceived Ease of Use* were recategorized into three dimensions namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree, and Neutral = Undecided.

The table shows clearly that of 53 responders who used e-textbooks more frequently, the majority (86.79%) had a positive perception of the usefulness of e-textbooks. Furthermore, of 27 respondents who reported using printed textbooks more frequently the majority (59.2%) reported a negative perceived usefulness of e-textbooks.

The chi-square test aimed to show if there exists a relationship between the frequency of use of textbook kinds and the current perceived ease of use of e-textbooks amongst respondents. The chi-square test recorded a value of 31.99 and a p-value of 0.000 indicating a significant relationship between the variables.

Table 22: Cross-tabulation between Frequency of Use and Attitude

ATT		E-textbooks	Printed Textbook	Total
Positive	Count	43.00	6.00	49.00
	Percent	81.13%	22.22%	61.25%
Negative	Count	3.00	19.00	22.00
	Percent	5.66%	70.37%	27.50%
Neutral	Count	7.00	2.00	9.00
	Percent	13.21%	7.41%	11.25%
Total	Count	53.00	27.00	80.00
	Percent	100.00%	100.00%	100.00%
Chi-square value = 37.91; Sig = 0 .000				

The table above shows cross-tabulation results between attitude to use of e-textbooks and frequency of use of the two kinds of textbooks amongst respondents. Responses related to *Attitude* were recategorized into three dimensions namely; Positive = Strong Agree, Agree; Negative = Strongly Disagree, Disagree, and Neutral = Undecided.

The table shows clearly that of 53 responders who used e-textbooks more frequently, the majority (81.1%) had a positive attitude towards the use of e-textbooks. Furthermore, 27 respondents who reported using printed textbooks more frequently the majority (70.3%) reported a negative attitude towards the use of e-textbooks.

The chi-square test aimed to show if there exists a relationship between the frequency of use of textbook kinds and the current attitude towards use of e-textbooks amongst respondents. The chi-square test recorded a value of 37.91 and a p-value of 0.000 indicating a significant relationship between the variables.

4.4. RELIABILITY ANALYSIS (CRONBACH ALPHA SCORES)

As described in Chapter three in the reliability analysis part, an internal consistency process was utilized in this research to explore the reliability of the research instruments. Utilizing this procedure, reliability is operationalized as internal consistency and it is the extent of inter correlations amongst items that form a scale. Nevertheless, internal consistency is approximated utilizing a reliability coefficient known as Cronbach Alpha (Fields, 2013). If the result of Cronbach (α) is less than 0.60, it is considered as poor. If the end-result of Cronbach (α) is from 0.60 to 0.79, it is considered to be acceptable and if the end-result of Cronbach (α) is over 0.80, it is considered as good. If the end-result of Cronbach's alpha's coefficient (α) is over 0.90, it is regarded as excellent (Hair et al. 2008; Sekaran 2016). The end-results of the reliability statistics are presented in the Appendix below and a summary of the analysis is displayed in the table below

Table 23: Cronbach Alpha Scores

Determinants	No of items	Cronbach's Alpha	Acceptable Cronbach's Alpha
Perceived Usefulness (PU)	5	.986	Excellent
Perceived Ease of Use (PEOU)	5	.977	Excellent
Attitude (ATT)	5	.978	Excellent
Complexity (CMX)	5	.952	Excellent
Compatibility (CMP)	5	.965	Excellent
E-Textbook Use (USE)	4	.780	Acceptable

Cronbach Alpha score for **Perceived Usefulness (PU)** was high and reported at 0.986. Similarly, the alpha score for **Perceived Ease of Use (PEOU)** was also high at 0.977. Other variables also reported high-reliability scores; **Attitude (ATT)** was set at 0.978; **Complexity (CMX)** at 0.952 and **Compatibility (CMP)** at 0.965. The lowest score reported was **behavioural intent to use e-Textbook (USE)** which was reported as 0.780, a sufficiently good reliability score.

4.5. CORRELATION ANALYSIS

Table 24: Correlations

		PU	PEOU	AT	CMX	CMP	USE
PU	Pearson Corr.	1	.828(**)	.868(**)	.117	.682(**)	.915(**)
	Sig. (2-tail)		.000	.000	.300	.000	.000
	N	80	80	80	80	80	80
PEOU	Pearson Corr.	.828(**)	1	.864(**)	.272(*)	.620(**)	.816(**)
	Sig. (2-tail)	.000		.000	.014	.000	.000
	N	80	80	80	80	80	80
AT	Pearson Corr.	.868(**)	.864(**)	1	.168	.703(**)	.815(**)
	Sig. (2-tail)	.000	.000		.135	.000	.000
	N	80	80	80	80	80	80
CMX	Pearson Corr.	.117	.272*	.168	1	.312(**)	.107
	Sig. (2-tail)	.300	.014	.135		.005	.346
	N	80	80	80	80	80	80
CMP	Pearson Corr.	.682(**)	.620(**)	.703(**)	.312(**)	1	.642(**)
	Sig. (2-tail)	.000	.000	.000	.005		.000
	N	80	80	80	80	80	80
USE	Pearson Corr.	.915(**)	.816(**)	.815(**)	.107	.642(**)	1
	Sig. (2-tail)	.000	.000	.000	.346	.000	
	N	80	80	80	80	80	80

(**). Correlation is significant at the 0.01 level (2-tailed).

Correlation analysis was utilized to check for the existence and strength of relationships existing between the variable measured in this study. Generally, the value of the Pearson correlations ranges from -1.00 to +1.00. The value shows the strength of a relationship between the variables as well as the nature of the relation (i.e. whether positive or negative).

Furthermore, the coefficients of determination were also computed to give a goal of how much variation the two correlated variables share. To get this, the value of 'r' was squared and

converted to percentage of variance by multiplying the result by 100. Based on the results presented in the correlation analysis table above, the following findings were reported;

Hypothesis1: Perceived usefulness impacts Behavioural intent to use e-textbooks

Table 25: Correlations analysis between Perceived Usefulness and Behavioural intent to use e-textbooks

		PU	USE
PU	Pearson Corr.	1	.915(**)
	Signf. (2-tail)		.000
	No	80	80
USE	Pearson Corr.	.915(**)	1
	Signf. (2-tail)	.000	
	No	80	80

Based on the Pearson Coefficient efficient (.915) the coefficient of determination for this correlation is estimated as 83.722%, implying that there was 83.722% shared variance between PU and USE. The results also indicated the extant of a strong (large), positive, and significant relationship between PU and USE. [r=0.915, n=80, p<0.001].

Hypothesis 1a: Perceived usefulness impacts attitude to use e-textbooks

Table 26: Correlations analysis between Perceived Usefulness and attitude to use e-textbooks

		PU	AT
PU	Pearson Corr.	1	.868(**)
	Signf. (2-tail)		.000
	No	80	80
ATT	Pearson Corr.	.868(**)	1
	Signf. (2-tail)	.000	
	No	80	80

Based on the Pearson Coefficient efficient (.868) the coefficient of determination for this correlation is estimated as 75.342%, implying that there was 75.342% shared variance between

PU and AT. The results also indicated the presence of a compelling (large), positive, and remarkable relationship between PU and AT. [$r=0.868$, $n=80$, $p<0.001$].

Hypothesis 2: Perceived ease of use affects Behavioural intent to use e-textbooks

Table 27: Correlations analysis between Perceived ease of use and Behavioural intent to use e-textbooks

		PEOU	USE
PEOU	Pearson Corr.	1	.816 ^(**)
	Signf. (2-tail)		.000
	No	80	80
USE	Pearson Corr.	.816 ^(**)	1
	Signf. (2-tail)	.000	
	No	80	80

Based on the Pearson Coefficient efficient (.816) the coefficient of determination for this correlation is estimated as 66.585%, implying that there was 66.585% shared variance between PEOU and USE. The results also indicated the presence of a compelling (large), positive, and notable relationship between PEOU and USE. [$r=0.816$, $no=80$, $p<0.00$].

Hypothesis 2a: Perceived ease of use affects Perceived usefulness to use e-textbooks

Table 28: Correlations analysis between Perceived ease of use and Perceived Usefulness to use e-textbooks

		PU	PEOU
PU	Pearson Corr.	1	.828 ^(**)
	Signf. (2-tail)		.000
	No	80	80
PEOU	Pearson Corr.	.828 ^(**)	1
	Signf. (2-tail)	.000	
	No	80	80

Based on the Pearson Coefficient efficient (.828) the coefficient of determination for this correlation is estimated as 66.558%, implying that there was 66.558% shared variance between

PU and PEOU. The results also indicated the presence of a compelling (large), positive, and notable relationship connecting PU and PEOU. [$r=0.828$, $n=80$, $p<0.001$].

Hypothesis 2b: Perceived ease of use affects attitude to use e-textbooks

Table 29: Correlations analysis between Perceived ease of use and attitude to use e-textbooks

		PEOU	AT
PEOU	Pearson Corr.	1	.864 ^(**)
	Signf. (2-tail)		.000
	No	80	80
ATT	Pearson Corr.	.864 ^(**)	1
	Signf. (2-tail)	.000	
	No	80	80

Based on the Pearson Coefficient efficient (.864) the coefficient of determination for this correlation is estimated as 74.649%, implying that there was 74.649% shared variance between PEOU and AT. The results also indicated the presence of a compelling (large), positive, and notable relationship between PEOU and AT. [$r=0.864$, $n=80$, $p<0.001$].

Hypothesis 3: Attitude affects Behavioural intent to use e-textbooks.

Table 30: Correlations analysis between Attitude and Behavioural intent to use e-textbooks.

		ATT	USE
ATT	Pearson Corr.	1	.815 ^(**)
	Signf. (2-tail)		.000
	No	80	80
USE	Pearson Corr.	.815 ^(**)	1
	Signf. (2-tail)	.000	
	No	80	80

Based on the Pearson Coefficient efficient (.815) the coefficient of determination for this correlation is estimated as 66.422%, implying that there was 66.422% shared variance between AT and USE. The results also indicated the presence of a compelling (large), positive, and notable relationship between AT and USE. [$r=0.815$, $n=80$, $p<0.001$]

Hypothesis 4: Compatibility impacts Behavioural intent to use e-textbooks

Table 31: Correlations analysis between Compatibility and Behavioural intent to use etextbooks

		CMP	USE
CMP	Pearson Corr.	1	.642 ^(**)
	Signf. (2-tail)		.000
	No	80	80
USE	Pearson Corr.	.642 ^(**)	1
	Signf. (2-tail)	.000	
	No	80	80

Based on the Pearson Coefficient efficient (.642) the coefficient of determination for this correlation is estimated as 41.216%, implying that there was 41.216% shared variance between CMP and USE. The results also indicated the presence of a compelling (large), positive, and notable relationship connecting CMP andUSE. [r=0.642, n=80, p<0.001].

Hypothesis 4a: Compatibility impacts perceived usefulness to use e-textbooks

Table 32: Correlations analysis between Compatibility and Perceived Usefulness to use etextbooks

		CMP	PU
CMP	Pearson Corr.	1	.682 ^(**)
	Signf. (2-tail)		.000
	No.	80	80
PU	Pearson Corr.	.682 ^(**)	1
	Signf. (2-tail)	.000	
	No.	80	80

Based on the Pearson Coefficient efficient (.682) the coefficient of determination for this correlation is estimated as 46.512%, implying that there was 46.512% shared variance between CMP and PU. The results also indicated the presence of a compelling (large), positive, and notable relationship between CMP and PU. [r=0.682, n=80, p<0.001].

Hypothesis 5: Complexity impacts Behavioural intent to use e-textbooks

Table 33: Correlations analysis between Complexity and Behavioural intent to use etextbooks

		CMX	USE
CMX	Pearson Corr.	1	.107
	Signf. (2-tail)		.346
	No	80	80
USE	Pearson Corr.	.107	1
	Signf. (2-tail)	.346	
	No	80	80

Based on the Pearson Coefficient efficient (.107) the coefficient of determination for this correlation is estimated as 1.144%, implying that there was 1.144% shared variance between CMX and USE. The results also indicated the existence of a positive, and significant relationship between CMX and USE. [r=0.107, n=80, p<0.001].

Hypothesis 5a: Complexity impacts attitude to use e-textbooks

Table 34: Correlations analysis between Complexity and attitude to use e-textbooks

		CMX	AT
CMX	Pearson Corr.	1	.168
	Signf. (2-tail)		.135
	N	80	80
AT	Pearson Corr.	.168	1
	Signf. (2-tail)	.135	
	No	80	80

Based on the Pearson Coefficient efficient (.168) the coefficient of determination for this correlation is estimated at 2.822%, implying that there was 2.822% shared variance between CMX and AT. The results also indicated the existence of a positive, and significant relationship between CMX and AT. [r=0.168, n=80, p<0.001].

4.6. REGRESSION AND HYPOTHESIS TESTING

Hypothesis 1: Perceived usefulness impacts Behavioural intent to use e-textbooks *Table 35: Regression result for Hypothesis 1*

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	Beta	t	Sig.
1	.915 ^a	.838	.836	.43100	.915	20.080	.000

a. Predictors: (Constant), PU

b. Dependent Variable: USE

The result of the regression analysis indicates that the perceived usefulness of e-textbooks has a positive effect on the intention to use. H1 is confirmed in the study results which show that Perceived Usefulness has a positive and significant relationship with Behavioural intention to use ($t = 20.080$; $Beta = 0.915$; $p\text{-value} = 0.000$).

Hypothesis 1a: Perceived Usefulness impacts attitude to use e-textbooks *Table 36: Regression result for Hypothesis 1a*

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	Beta	t	Sig.
1	.868 ^a	.754	.751	.66336	.868	15.459	.000

a. Predictors: (Constant), PU

b. Dependent Variable: AT

The result of the regression analysis indicates that the Perceived Usefulness of e-textbooks has a positive effect on Attitude. H1b is confirmed in the study results which show that Perceived usefulness has a positive and significant relationship with Attitude to use ($t = 15.459$; $Beta = 0.868$; $p\text{-value} = 0.000$).

Hypothesis 2: Perceived ease of use affects Behavioural intent to use e-textbooks *Table 37: Regression result for Hypothesis 2*

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	Beta	t	Sig.
1	.816 ^a	.665	.661	.61917	.816	12.456	.000

a. Predictors: (Constant), PEOU

b. Dependent Variable: USE

The result of the regression analysis indicates that the Perceived Usefulness of e-textbooks has a positive effect on Attitude. H2 is confirmed in the study results which show that Perceived Usefulness has a positive relationship and significant with Attitude to use ($t= 12.456$; Beta = 0.816; $p\text{-value} = 0.000$).

Hypothesis 2a: Perceived ease of use affects Perceived Usefulness to use e-textbooks *Table 38: Regression result for Hypothesis 2a*

Model	R	R Square	Adjusted R Square	Std. The error of the Estimate	Beta	t	Sig.
1	.828a	.686	.682	.78131	.828	13.066	.000

a. Predictors: (Constant), PEOU

b. Dependent Variable: PU

The result of the regression analysis indicates that the perceived ease of use of e-textbooks has a positive effect on its Perceived Usefulness. H2a is confirmed in the study results which show that Perceived ease of use has a positive and significant relationship with the Perceived Usefulness of e-textbooks ($t= 13.066$; Beta = 0.828; $p\text{-value} = 0.000$)

Hypothesis 2b: Perceived Ease of Use affects attitude to use e-textbooks *Table 39: Regression result for Hypothesis 2b*

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	Beta	t	Sig.
1	.864a	.747	.744	.67296	.864	15.166	.000

a. Predictors: (Constant), PEOU

b. Dependent Variable: AT

The result of the regression analysis indicates that the Perceived Ease of Use of e-textbooks has a positive effect on attitude to the use of e-textbooks. H2b is confirmed in the study results which show that Perceived ease of use has a positive and significant relationship with attitude to the use of e-textbooks ($t= 15.166$; Beta = 0.864; $p\text{-value} = 0.000$).

Hypothesis 3: Attitude affects Behavioural intent to use e-textbooks Table**40: Regression result for Hypothesis 3**

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	Beta	t	Sig.
1	.815 ^a	.664	.660	.62025	.815	12.424	.000

a. Predictors: (Constant), AT

b. Dependent Variable: USE

The result of the regression analysis indicates that Attitude to the use of e-textbooks has a positive effect on behavioural intention to use e-textbooks. H3 is confirmed in the study results which show that Attitude to the use of e-textbooks has a positive and significant relationship with behavioural intent to use e-textbooks ($t= 12.424$; $Beta = 0.815$; $p\text{-value} = 0.000$).

Hypothesis 4: Compatibility impacts Behavioural intent to use e-textbooks Table**41: Regression result for Hypothesis 4**

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	Beta	t	Sig.
1	.642 ^a	.412	.404	.82095	.642	7.391	.000

a. Predictors: (Constant), CMP

b. Dependent Variable: USE

The result of the regression analysis indicates that compatibility has a positive effect on behavioural intention to use e-textbooks. H4 is confirmed in the study results which show that compatibility has a positive and significant relationship with behavioural intent to use e-textbooks ($t= 7.391$; $Beta = 0.642$; $p\text{-value} = 0.000$).

Hypothesis 4a: Compatibility impacts Perceived Usefulness to use e-textbooks *Table 42: Regression result for Hypothesis 4a*

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	Beta	t	Sig.
1	.682a	.466	.459	1.01995	.682	8.243	.000

a. Predictors: (Constant), CMP

b. Dependent Variable: PU

The result of the regression analysis indicates that compatibility has a positive effect on the Perceived Usefulness of e-textbooks. H4a is confirmed in the study results which show that compatibility has a positive and significant relationship with Perceived Usefulness of e-textbooks (t= 8.243; Beta = 0.682; p-value = 0.000).

Hypothesis 5: Complexity impacts behavioural intent to use e-textbooks *Table 43: Regression result for Hypothesis 5*

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	Beta	t	Sig.
1	.107 ^a	.011	-.001	1.06440	.107	.948	.346

a. Predictors: (Constant), CMX

b. Dependent Variable: USE

The result of the regression analysis indicates that complexity has a positive effect on behavioural intent to use e-textbooks. H5 is confirmed in the study results which show that complexity has a positive but non-significant relationship with behavioural intent to use e-textbooks (t= 0.948; Beta = 0.107; p-value = 0.346).

Hypothesis 5a: Complexity impacts attitude to use e-textbooks *Table 44: Regression result for Hypothesis 5a*

Model	R	R Square	Adjusted R Square	Std. An error of the Estimate	Beta	t	Sig.
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1	.168a	.028	.016	1.31816	.168	1.509	.135
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a. Predictors: (Constant), CMX

b. Dependent Variable: AT

The result of the regression analysis indicates that complexity has a positive effect on attitude to the use of e-textbooks. H5a is confirmed in the study results which show that complexity has a positive and significant relationship with attitude to use of e-textbooks ($t = 1.509$; Beta = 0.168; p -value = 0.135).

4.7. CHAPTER SUMMARY

This chapter supplied a comprehensive explanation of the outcome of the findings; the descriptive statistic, cross-tabulation, reliability analysis (Cronbach alpha), correlation analysis and the regression analysis. Discussion of the findings is explained in Chapter 5.

CHAPTER FIVE

DISCUSSION OF FINDINGS

5.1 INTRODUCTION

E-textbook and printed textbook preference vary with students. The reason for this research was to determine whether Pearson Institute undergraduate students prefer e-textbook or printed textbook.

The research question for this study: What is the textbook preference of Pearson Institute Information Technology undergraduate students? The sub-questions: What is their preference- e-textbook or the traditional textbook? How do students engage with the type of textbook they use?

5.2 TESTING RELIABILITY SCALES

The reliability of the Perceived Usefulness (PU), Perceived ease of use (PEOU), Attitude (ATT), Compatibility (CMX), Complexity (CMP) and e-textbook use (USE) scales was tested using the Cronbach's alpha coefficient (Fields, 2013). The analysis shows that five scales overall were above 0.90 which shows that the scale is not only reliable but excellent as the overall alpha coefficient result, PU is 0.986, PEOU is 0.977, ATT is 0.978, CMX is 0.952 and CMP is 0.965 and the sixth scale was above 0.70, USE is 0.780 which shows that it is not only reliable but also acceptable,. All in all, each scale was proven to be reliable

5.3 DISCUSSION ON HYPOTHESIS 1

Hypothesis 1: Perceived Usefulness impacts Behavioural intent to use e-textbooks

Hypothesis 1a: Perceived Usefulness impacts attitude to use e-textbooks

The hypothesis that perceived usefulness impacts student's behaviour to use e-textbook and perceived usefulness impacts a student's attitude to using e-textbook is supported in this study.

The correlation analysis showed that there was 83.722% shared magnitude between PU (Perceived Usefulness) and Behavioural intention to use e-textbooks which shows the existence of a strong positive and significant relationship between them and the Regression analysis also confirmed that perceived usefulness has a positive influence on intention to use e-textbooks ($R^2=.838$). This means that Perceive Usefulness is 83.8% responsible for the student's perception of utilizing a digital textbook while the correlation analysis showed that there was 75.342% shared magnitude between PU (Perceived usefulness) and AT (Attitude) which also shows the presence of a strong and significant relationship between PU and AT. The regression analysis that also showed that perceived usefulness has a positive influence on the student's attitude to use e-textbooks ($R^2=.754$), meaning that perceived usefulness is 75.4% responsible for the student's attitude towards using e-textbooks.

The result of this hypothesis is in line with the study of Hue, Rosenfeld and Saa, (2014) who stated that the increase in technology has caused the use of electronic devices for reading to become popular and also the study of Kerrs and Symons (2006) who stated that due to technological advancement, students continuously educate themselves more independently, and they have begun utilizing new learning strategies which involve electronic devices.

5.4 DISCUSSION ON HYPOTHESIS 2

Hypothesis 2: Perceived Ease of Use affects Behavioural intent to use e-textbooks.

Hypothesis 2a: Perceived Ease of Use affects Perceived usefulness to use e-textbooks.

Hypothesis 2b: Perceived Ease of Use affects attitude to use e-textbooks.

The hypothesis that Perceived ease of use influences the students' Behavioural intent to use, perceived ease of use affects Perceived usefulness to use e-textbooks and that Perceived Ease of Use affects students' attitude to use e-textbooks is supported in this study. The correlation

analysis showed that there was 66.585% shared magnitude between PEOU and Behavioural intention to use e-textbook which shows a strong and significant relationship between them. The regression analysis showed that Perceived ease of use has a positive influence on Behavioural intention to use e-textbook ($R^2=.665$) which means Perceived Ease of Use plays at least 66.5% role in a student's intention to utilize e-textbooks. The correlation analysis showed that there was 66.558% shared magnitude between PU and PEOU which shows a strong and significant relationship between them. The regression analysis showed that Perceived Ease of Use has a positive influence on Perceived Usefulness to use e-textbooks ($R^2=.686$) meaning Perceived Ease of Use has a 68.6% influence on a student's perceived usefulness to use e-textbooks. The correlation analysis showed that there was 74.649% shared magnitude between PEOU and AT which shows a strong and significant relationship between them. The regression analysis indicated that Perceived ease of use of e-textbooks has a positive effect on attitude to the use of e-textbooks. ($R^2=.747$) meaning Perceived Ease of Use has a 74.7% influence on a student attitude to use e-textbooks.

The result of this hypothesis is in line with the study of Landrum, Gurung and Spann (2012) which states that if a text is shown to a student in a way that fits his learning style, the student will most likely be inclined to finish his assignment as well as be successful in his reading and also the study of Yamson, Appiah and Tsegah (2018) which says that E-textbook resource allows for a wide range of access opportunities that you cannot get from the traditional environment including 24/7 access, remote access, and having multiple users utilizing a single resource and also the ease of use, accuracy and consistency was also part of the reason why the students preferred e-textbook.

5.5 DISCUSSION ON HYPOTHESIS 3

Hypothesis 3: Attitude affects Behavioural intent to use e-textbooks.

The hypothesis that attitude affects behavioural intent to use e-textbooks is supported in this study. The correlation analysis showed that there was 66.422% shared magnitude between AT and Behavioural intention to use e-textbooks indicating a strong and significant relationship between them. The regression analysis indicated that Attitude to use e-textbooks has a positive effect on behavioural intent to use e-textbooks ($R^2=.664$) meaning attitude has a 66.4% influence on a student's intention to use e-textbooks. The result of this hypothesis is in line with the study of Jolliffe and Harl (2008) which states that when a text is particularly technology-based, the student frequently interacts confidently with the text.

5.6 DISCUSSION ON HYPOTHESIS 4

Hypothesis 4: Compatibility impacts Behavioural intent to use e-textbooks

Hypothesis 4a: Compatibility impacts Perceived Usefulness to use e-textbooks

The hypothesis that compatibility impacts behavioural intent to use e-textbooks and compatibility impacts perceived usefulness to use e-textbooks is supported in this study. The correlation analysis showed that there was 41.216% shared magnitude between CMP and Behavioural intention to use e-textbooks indicating a strong and significant relationship between them. The regression analysis showed that Compatibility has a positive effect on Behavioural intent to use e-textbooks ($R^2=.412$) meaning compatibility has a 41.2% influence on a student's intent to use e-textbooks. The correlation analysis showed that there was a 46.512% shared magnitude between CMP and PU indicating a strong and significant relationship between them. The correlation analysis showed that compatibility has a positive effect on Perceived Usefulness of e-textbooks ($R^2=.466$) meaning compatibility has a 46.6% influence on a student's intent to use e-textbooks

The result of this hypothesis is in line with the study of Jolliffe and Harl (2008) which stated that due to the multi-tasking capabilities while reading from a device, students prefer reading via technology and also the study by Abaci, Brckalorenz and Quick, (2019) which states that the students enjoyed using e-textbooks especially its interactive features. The students expressed that the e-textbook had contributed to both the learning and completion of their coursework.

5.7 DISCUSSION ON HYPOTHESIS 5

Hypothesis 5: Complexity impacts Behavioural intent to use e-textbooks

Hypothesis 5a: Complexity impacts attitude to use e-textbooks

The hypothesis that complexity impacts Behavioural intent to use e-textbook and complexity impacts attitude to use e-textbooks is not fully supported in this study. The correlation analysis showed that there was a 1.144% shared magnitude between CMX and U meaning there is a positive (weak) but non-significant relationship. The regression analysis showed that Complexity has a weak positive effect on Behavioral intention to use e-textbooks ($R^2=.011$) meaning complexity has a 1.1% influence on a student's intent to use e-textbook. The correlation analysis showed that there was a 2.822% shared magnitude between CMX and AT indicating a positive but non-significant relationship. The regression analysis showed that

complexity has a positive effect on attitude to the use of e-textbooks. ($R^2=.028$) meaning complexity has a 2.8% influence on a student's attitude to using e-textbooks.

The result above shows that complexity though positive has little or no influence on students use of e-textbook making it almost insignificant and this can be seen also in the answers of the responders on the complexity statements in part b of the questionnaire. Over 50% of them disagreed that complexity influences the attitude as well as their intention to use.

5.8 WHAT IS THE TEXTBOOK PREFERENCE OF PEARSON INSTITUTE INFORMATION TECHNOLOGY UNDERGRADUATE STUDENTS?

The outcome of the data collected shows that Pearson Institute Information Technology undergraduate students prefer e-textbooks to printed textbooks. This is based on the analysis of three questions. The questions asked students (1) which textbook they prefer, and they were given the choice of either e-textbooks or printed and (2) their reason for choosing the specific textbook as well as (3) which textbook they use for most of their courses. The questions were used to help understand the student's textbook preference.

Overall most of the students preferred e-textbooks to printed textbooks. 61.3% said they preferred e-textbook while the rest 38.8% preferred printed textbooks. E-textbooks can be described as digital texts accessed via electronic screens. The e-textbook concepts started as printed versions of books being converted to electronic versions but, currently e-textbooks are produced as their original versions in which they have no printed versions of their books (Bennet, 2006). Their reason for choosing the specific textbook was: 20% said price, 30% said convenience, 8.8% said portable and easy access, 6.3% said easy to read and highlight, and the last 35% said textual features. With the introduction of e-textbooks, the text structure can be

either in a linear or nonlinear form thus creating different ways of learning. E-textbooks can be in a nonlinear form, rotating based on the content of the screen as opposed to printed books which are in a linear form with a fixed layout text (Kerr and Symons, 2006) Also, as for which textbook they use for most of their course, 66.3% selected e-textbooks while the rest 33.8% chose printed textbooks. The significant difference in these percentages results in the conclusion that students are more comfortable using e-textbooks over printed textbooks, hence the e-textbook preference.

The overall results show that Pearson Institute students prefer e-textbooks over printed textbooks. Durwin and Sherman (2008) said students are well informed of the textbook attributes that are favourable to their learning, thus making them better judges of which textbook to use. Since the incorporation of technology into education, digital texts are now accessible in higher institutions as they provide cost advantages and attributes that are meant to help increase learning and teaching (Abaci, BrckaLorenz and Quick, 2019). Thus, answering the research question : what is the textbook preference of Pearson Institute Undergraduate Students?. The undergraduate students of Pearson University prefer E-textbooks over printed textbooks.

5.9 HOW DO STUDENTS ENGAGE WITH THE TYPE OF TEXTBOOK THEY USE?

Several questions were analyzed to understand the way students engage with the type of textbook they use. Questions were asked about the following: (1)awareness of e-textbook on the tablet given to them by the school, (2) how long they had been using the e-textbook on the tablet, (3)motivation for using the e-textbook,(4) reading with e-textbook difficult compared to the printed textbook, and (5) e-textbook influence on reading habit compared to the printed textbook.

The result for the awareness of e-textbook on their tablet given to them by the school, overall most students were aware of the e-textbooks on their tablet. 78.8% said they were aware of the e-textbook on their school tablet while the rest 21.3% said they were unaware of the e-textbook on their schools' tablet. Also 53.8% said they had been using the e-textbook for more than a year, 26.3% said a year and the last 20% said less than a year. E-textbook resource allows for a wide range of access opportunities that you cannot get from the traditional environment including 24/7 access, remote access, and having multiple users utilizing a single resource (Yamson, Appiah and Tsegah, 2018)The result for their motivation of using the e-textbooks were 30% said their academics, 28.7% said easy access to their e-textbook, 16.3% said it was easy to use, 16.3% considered it convenient and portable, and the last 8.8% said nothing. The

ease of use, accuracy and consistency was also part of the reason why the students preferred e-textbook (Yamson, Appiah and Tsegah , 2018)

Students were also asked if they find reading with the e-textbooks on their tablets difficult compared to printed textbooks. 67.5% said they do not find reading with their e-textbooks difficult, and the rest 32.5% said they find it difficult reading with their e-textbooks. If a text is shown to a student in a way that fits his learning style, the student will most likely be inclined to finish his assignment as well as be successful in his reading. (Landrum et al, 2012). The students were also asked regarding their reading habits with e-textbooks. A question was asked about how using the e-textbook on their tablet has influenced their reading habit. 61.3% said they read more, 32.5% said their reading habit is still the same while the last 6.3% said they read less. Jolliffe and Harl (2008) also discovered that when a text is particularly technologybased, the student frequently interacts confidently with the text and due to the multi-tasking capabilities while reading from a device, students prefer reading via technology.

The overall result has shown that the undergraduate students of Pearson Institute engage frequently, often and more preferably with the E-textbook and not the printed textbook. Thus, answering to: how do students engage with the type of textbook they use?.

CONCLUSION

Altogether, the data reported in my study has not only shown that Pearson Institute Information Technology undergraduate students prefer e-textbooks to printed textbooks but has also answered the research question . The majority of the data reported has provided evidence which supports that a student's textbook preference influences the student's choice of textbook, as well as their engagement with that textbook.

5.10 CHAPTER SUMMARY

This chapter has given a discussion of the findings, tested the reliability scales, revisited and discussed the hypotheses, and conclusions were drawn in relation to the literature to answer the research questions. Chapter 6 will contain the summary, conclusion, limitations and recommendations.

CHAPTER SIX

CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

6.1. SUMMARY

The first chapter of this research provided the introduction, background of the study, the problem of study, research questions, research objectives, rationale, significance of the study, delimitations of the study, the definition of terms and assumption while chapter 2 provided an introduction, important historical research, e-textbook definitions, theoretical orientation, recent research and the theoretical framework. Chapter 3 provided the research methodology; research design, research paradigm, methodological approach, population and sampling method, research instrument, the procedure for data collection, data analysis and interpretation, validity and reliability, and research ethics while chapter 4 was the presentations of the findings, and chapter 5 discussed the research findings. Chapter 6 provides a conclusion, limitations, and recommendations.

The purpose of this study was to investigate whether university students prefer printed textbooks or e-textbooks and to ascertain the factors affecting the adoption of e-textbooks and printed textbooks and why university students prefer one to the other. The main research question was what is the textbook preference of Pearson Institute undergraduate students? And to support the main questions the following sub-questions were addressed: What are their preferences- e-textbook or the traditional textbook? How do students engage with the type of textbook they use? Data collection took place via questionnaire survey which was physically administered to the third-year students of the Pearson Institute of Higher Education. This chapter concludes with the summary, conclusion, limitations and recommendation.

6.2. SUMMARY OF OBJECTIVES, FINDINGS AND HYPOTHESIS

The main aim of this research was to find out if Pearson Institute students preferred digital textbooks or printed textbooks. The conceptual framework presented the hypothesized relationship that was tested. This research was established on the positivism paradigm using the quantitative method and to test the hypothesis a survey was carried out and the data was collected from the Pearson Institute undergraduate students. The Cronbach alpha coefficient presented that the reliability of the scale for Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude (ATT), Complexity (CMX), Compatibility (CMT) and intent to use e-textbook (USE) were all dependable and acceptable. A correlation and regression were carried out to inspect the relationship as outlined using the conceptual framework. The outcome shows the hypotheses results as presented in Chapter five. Four out of five hypotheses were accepted.

6.3. CONCLUSION

Various conclusions were deduced established on the data collected and results analyzed regarding E-textbook preference at a private higher institution. The conclusions hinged on the evidence are positioned with research shown in the Literature Review in Chapter 2.

The results of the data collected shows that most of the students (61.2%) prefer e-textbooks as opposed to (38.8%) the printed textbooks. The digital text(e-textbooks) made available by the university for their study was used by majority (78.8%) of the students as they were aware of it as opposed to the 21.2% who claimed they were unaware of the e-textbooks which is in line with Kerrs and Symons (2006) research which says that due to technological advancements, student continuously educate themselves more independently. They have begun utilizing new learning strategies that involve electronic devices. Furthermore, most of the respondents said that they had been using the e-textbook on their tablet for more than a year (53.8%). while 26.2% reported they had been using e-textbooks provided for about a year while 20.0% had been using them for less than a year . This agrees with the research Landrum et al (2012) that states: If a text is shown to a student in a way that fits his learning style, the student will most likely be inclined to finish his assignment as well as be successful in his reading.

In analyzing the information, most students attested that they study more profitably and more frequently using E-textbooks and preferred using E-textbooks as opposed to printed textbooks. Besides, most of the respondents (about 67.5%) did not find reading with e-textbook on tablets difficult compared to the printed textbooks which are in line with Hue, Rosenfeld and Saa (2014) which states that the increase in technology has caused the use of the electronic device for reading purposes to become popular. The results also showed that the majority of the students were motivated to use their E-textbooks on their tablet due to their academic

recommendations (30.0%) or easy access (28.8%), convenience and portability (16.2%) as well as ease of use (16.2%). This is in line with Yamson, Appiah and Tsegah (2018) research which says E-textbook resource allows for a wide range of access opportunities that you cannot get from the traditional environment including 24/7 access, remote access, and having multiple users utilizing a single resource. Also, the ease of use, accuracy and consistency was also part of the reason why the students preferred e-textbook. In this research, the e-textbook was reported by the majority of the respondents (about 61.2%) to be used for most of their studies.

The research question states: What is the textbook preference of Pearson Institute Information Technology undergraduate students? Has been answered by the students who utilized both textbook types described in this research and their response has shown and brought about the conclusion that the information technology undergraduate students prefer to use e-textbooks rather than printed textbooks . This study is sufficient enough to show that Pearson Institute Information Technology Undergraduate students prefer E-textbook to Printed textbooks.

6.4. LIMITATIONS

The limitation is that not many private universities in South Africa have embraced the etextbook concept and therefore limiting my research as a case study to Pearson Institute of Higher Education as they make use of both printed textbooks and e-textbooks, thus making the sample size small and also limiting it to just IT undergraduate students.

6.5 RECOMMENDATION

For Future Research

Further research and studies can be done as more universities in South Africa both public and private start to embrace the concept, knowledge, and use of e-textbooks. The group investigated in this research was exactly a small selection of 3rd year Information Technology undergraduate university students from a specific university. If further conclusive research is to be carried out based on this research, a wide-ranging, more varying selection of university undergraduates should be utilized. This would give a bigger data pool, which would aid in the gathering of more precise and illustrative data. Preferably, various university students should be investigated. Additionally, students from different subjects and programs should likewise be investigated, as this research only investigated students who were mostly of the same subject or program.

For University Students

The outcome of this research can be applied to support universities in selecting a suitable textbook to utilize for a subject to achieve success in that subject. Various students appear to depend on a single kind of textbook mostly for their studying. As university students, it's crucial to exploit learning chances, and to keep an open mind to new text forms to be successful in various varying circumstances and educational situations.

If the student is content most of the time utilizing the printed textbooks, that student should spend time investigating and reading about utilizing digital textbook (e-textbook). Students should keep an open mind to utilizing new text formats as studying will continuously advance with the inception of advanced technology. Some recommendations could be implemented with other students. If the student is content utilizing e-textbook most of the time, that student should spend time examining and studying printed textbooks. This learning will assist the student in becoming versatile and adaptable in acquiring knowledge. The understanding would reduce the restriction on students' knowledge gathering and guarantee an exceptional degree of success in most of their academic subjects.

For Lecturers

The outcome of this research can be utilized in helping university lecturers in steadfast arrangements for their students. University lecturers must provide students with textbooks that will aid the studying activity (promptly) and is imperative to utilize in comprehending the subject. Just as various students are often of the opinion that they can excel in a subject without making use of a textbook or even buying a textbook, the lecturers need to reassess the need for a textbook and how that textbook will be implemented to studying and learning before demanding that the student buy the textbook.

Furthermore, university lecturers should whenever feasible, give students the choice of utilizing either printed textbooks or e-textbooks. Some university lecturers may not be accustomed to utilizing the digital textbook but still give the choice to students, as multiple students assimilate better while using e-textbooks or conserve cost by transferring all the text to an electronic reading gadget. Likewise, some lecturers who are accustomed to utilizing e-textbooks should still give the students the choice of printed textbooks as the digital transition takes a while.

6.5. CHAPTER SUMMARY

This chapter has given a summary of the objectives, finding and hypotheses, conclusion, limitations and recommendations for future research, students and lecturers. Overall, this

research has answered the research questions and shown that Pearson Institute Information Technology undergraduate students prefer e-textbooks to the printed textbook.

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This paper has been accepted by the South African Journal of Higher Education for publishing
APPENDIX

Questionnaire

Students' perception of the adoption of e-textbook (Digital) as an alternative to traditional (printed) textbook.

This questionnaire is used for research about Students perception of the adoption of e-textbook as an alternative to traditional (printed) textbook at Pearson Institute

Please put a tick (√) in the box next to the answer of your choice or write in the space provided

1. What is your gender?

Male Female

2. What is your age group?

14-18 19-24 More than 24

3. Which of these textbooks do you prefer?

E-textbook (Digital) Traditional (printed)

4. Why did you choose the specific textbook in the question above?

Price Textual features Convenience Others (please specify)

5. Are you aware of the E-textbook installed on the tablet given to you by the university?

Yes No

6. How long have you been using the E-textbook on your tablet for?

Less than a year A year More than a year

7. What motivates you to use the E-textbook on your tablet?

8. Do you find reading with E-textbook (digital) on your tablet difficult compared to Traditional (printed) textbook

Yes No

9. Using the E-textbook on your tablet, how has it influenced your reading habits?

I read more My reading habit is still the same I read less

10. Which of the following textbook do you use for most of your courses?

E-textbook (digital) Traditional (printed)

To what extent do you agree or disagree with the following statements in respect to the E- textbook on your tablet. Please tick the most suitable appropriate option for yourself.

SA-STRONGLY AGREE A-AGREE SD-STRONGLY DISAGREE D-DISAGREE U-UNDECIDED

	SA	A	D	SD	U
Perceived Usefulness (PU)					
1. Using E-textbook (digital) increases learning productivity as oppose Traditional (printed) textbook					
2. Using E-textbook (digital) enhances my learning effectiveness as oppose Traditional (printed) textbook					
3. Using E-textbook (digital) will encourage students to learn more as oppose Traditional (printed) textbook					
4.Using E-textbook (digital) gives me greater control over my academics					
5.Using E-textbook (digital) for learning would improve the quality of my education					
Perceived Ease of Use (PEOU)					
6. Studying with E-textbook(digital) is fun as oppose Traditional (printed) textbook					
7. Using E-textbook(digital) motivates me to explore topics I may not have seen before as oppose Traditional (printed) textbook					
8. Using E-textbook(digital) makes learning easier as oppose Traditional (printed) textbook					
9. E-textbook (digital) gives me access to my various courses anytime, anywhere.					
10. Studying with E-textbook(digital) is easier than Traditional textbook					
Attitude					

11. I would feel more comfortable using E-textbook (digital) than Traditional (printed) textbook					
12. Using E-textbook(digital) for learning is a pleasant experience as oppose Traditional(printed) textbook					
13. Using E-textbook (digital) makes learning interesting					
14. I feel competent to effectively handle E-textbooks (digital) and the applications that come with it.					
15. I would feel comfortable with my lecturer using Etextbook(digital) to teach.					
Complexity					
16.Using E-textbook(digital) for learning purposes will require a lot of mental effort unlike Traditional (printed) textbook					
17. Using E-textbook(digital) is quite frustrating unlike Traditional (printed) book					
18. Learning to install and use the software that makes the use of Etextbook available will require a lot of time					
19. Using E-textbook will be too complex for our education					
20. I can operate my E-textbook(digital) to aid my learning if no one is around to show me how to use it					
Compatibility					
21. The use of E-textbook (digital) for learning will be compatible with all aspect of my academics					
22. Using E-textbook (digital) fits perfectly into my learning lifestyle unlike traditional (printed) textbook					
23. Using E-textbook (digital) for learning fits perfectly into Pearson Institute educational structure					
24.E-textbook(digital) is very portable and easy to carry around as oppose traditional textbooks					
25.The E-textbook(digital) is very easy to access					
E-textbook use					
26. I use E-textbooks for majority of my assignment					
27.I use my E-textbook intensively (more than 2 hours daily)					
28. I use the diversity of tools made available in my E-textbooks					

29. I intend to continue using E-Textbook for my learning					
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Consent Form

Greetings,

My name is Shammah Osih with student number 216065105 from the college of IS&T of the University of Kwazulu-Natal, Westville Campus, Durban. You are being invited to consider participating in a study that involves Students perception on the adoption of E-textbooks as an alternative to Printed Textbooks. The aim and purpose of this research is to understand students' perception on the use of Electronic Textbooks (E-textbooks) to Printed Textbooks and the students' preference on which textbook they prefer. The study is expected to include 100 3rd year students from the Information Technology Department of Pearson Institute of Higher Education, Midrand.

Participation in this research will entail completing a Questionnaire. The questionnaire will take approximately 10 minutes to fill. Participation is voluntary, and no participant will be advantaged or disadvantaged in any way for choosing to complete or not complete the questionnaire. While questions are asked about your textbook preference, no identifying information such as your name or ID number is asked for, and as such you will remain anonymous.

This study has been ethically reviewed and approved by the UKZN Humanities and Social Sciences Research Ethics Committee (approval number: HSS/1298/018M.).

In the event of any problems or concerns/questions you may contact the researcher at 216065105@stu.ukzn.ac.za or Cell:0613094192 or the UKZN Humanities & Social Sciences Research Ethics Committee, contact details as follows:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban 4000 KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557- Fax: 27 31 2604609

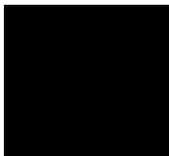
Email: HSSREC@ukzn.ac.za

Your participation in the study is voluntary and by participating, you are granting the researcher permission to use your responses. You may refuse to participate or withdraw from the study at any time with no negative consequence. There will be no monetary gain from participating in the study. Your anonymity will be maintained by the researcher and the School of Management, I.T. & Governance and your responses will not be used for any purposes outside of this study.

All data, both electronic and hard copy, will be securely stored during the study and archived for 5 years. After this time, all data will be destroyed.

If you have any questions or concerns about participating in the study, please contact me or my research supervisor at the numbers listed above.

Sincerely



Shammah Osih -----

CONSENT TO PARTICIPATE

I have been informed about the study entitled Students perception of the adoption of Etextbooks as an Alternative to Printed Textbooks by Shammah Osih.

I understand the purpose and procedures of the study (To fill a questionnaire).

I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.

I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher at 216065105@stu.ukzn.ac.za or Cell:0613094192.

If I have any questions or concerns about my rights as a study participant, or if I am concerned about an aspect of the study or the researchers then I may contact:

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001

Durban

4000

KwaZulu-Natal, SOUTH AFRICA

Tel: 27 31 2604557 - Fax: 27 31 2604609

Email: HSSREC@ukzn.ac.za

Signature of Participant

Date

Signature of Witness
(Where applicable)

Date

Signature of Translator
(Where applicable)

Date

14 August 2018

To Whom It May Concern:
Pearson Institute of Higher Education (PI)
University of Kwazulu Natal

Research Ethical Clearance No:
PIHE/2018/1408/01

Research Topic: STUDENTS PERCEPTION OF THE ADOPTION OF E-TEXTBOOKS AS AN ALTERNATIVE TO PRINTED TEXTBOOKS

This is to confirm that the Research Ethics Committee of the Pearson Institute of Higher Education, acting on behalf of the Research Committee and Management of PI, has granted Ms Shammah Chukwuehike Osih approval to undertake a research project at the institution.

It is to be noted that approval for the research project is granted on the following conditions:

- The exact date and time when the research will be conducted must be shared with the committee
- A detailed explanation on how the process will transpire, i.e. distribution and collection of questionnaires must be provided

It is understood that appropriate protocols, with particular reference to consent by, and confidentiality will be observed.

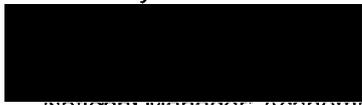
The Research Committee and Management of PI wish Ms Shammah Chukwuehike Osih success with her research project.

Sincerely, and on behalf of the PI Research Ethics Committee,

Dr Shaheda Mahomed


Dean of Academics
T +27 011 690 1772
E shahada.mahomed@pearson.com

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National Manager, Academic Support
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21 July 2021

Ms Shammah Chukwuehike Osih (216065105)
School of Management, IT & Governance
Westville Campus

Dear Ms Osih,

Protocol reference number: HSS/1298/018M

Project title: Student's perception on the adoption of E-textbooks (digital) as an alternative to printed textbooks
Amended title: e-Textbook preferences: A case study of information technology students' preferences at a private higher education institution

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 17 December 2020 has now been approved as follows:

- Change in title

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

All research conducted during the COVID-19 period must adhere to the national and UKZN guidelines.

Best wishes for the successful completion of your research protocol.

Yours faithfully

.....
Professor Dipane Hlalele (Chair)

/ms

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8350 / 4557 / 3587
Website: <http://research.ukzn.ac.za/Research-Ethics/>

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Dear sir/ madam

TO WHOM IT MAY CONCERN

EDITOR'S REPORT ON MS. OSIH SHAMMAH CHUKWUEHIKE MASTER'S THESIS

This is to confirm that I edited Ms Osih Shammah Chukwuehike Master Thesis on "*E-TEXTBOOK PREFERNCE: A CASE STUDY OF INFORMATION TECHNOLOGY STUDENTS PREFERENCE AT A PRIVATE HIGHER INSTITUTION*".

In editing of this dissertation, I focused on the general linguist's elements and also on the structural aspects. On the language, my specific focus was on aspects like sentence structure, grammar/syntax and spelling. I also made suggestions where observed, on the most appropriate punctuation mark in which case, the candidate's chosen mark might have to be replaced by another, depending on the context of the sentence. The structural recommendations I made related to paragraph, the use of upper and lower case, or in the need to attend to a particular citation and/or referencing error.

I found the candidate's writing to be generally mature, and trust that the editing work that has been done further enhances the overall quality of the dissertation.

Sincerely

Enaifoghe, A.O. (PhD)
(Consultant)

02-12-2020

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