UTILISATION OF REFERENCE MANAGEMENT SOFTWARE BY POSTGRADUATE STUDENTS IN THE FACULTY OF HUMANITIES AT THE UNIVERSITY OF LIMPOPO, SOUTH AFRICA

BY

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DECLARATION

This dissertation is submitted in fulfilment of the requirements for the Master's degree in Information Studies in the Department of Communication, Media and Information Studies of the School of Languages and Communications, Faculty of Humanities at the University of Limpopo, South Africa. I hereby declare that this dissertation is my own original work and the information sources used in the study have been acknowledged through complete references. I also declare that this work has never been submitted for any award or degree at any other university.

Motlhake TMJ Date

_____ _____

DEDICATION

I dedicate this study to my children, Regaugetswe and Hlompho.

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I acknowledge, The Heavenly Father for providing me with the strength and guidance to be able to complete this study.

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ABSTRACT

The study investigated the awareness towards the and utilisation of Reference Management Software (RMS) by postgraduate students in the Faculty of Humanities at the University of Limpopo, South Africa. The aim of the study was to examine the awareness and usage of RMS among postgraduate students in the Faculty of Humanities. The study sought to fulfil the following objectives, namely: to describe the types of RMS available for use in university libraries; to determine awareness of RMS by postgraduate students in the Faculty of Humanities at the University of Limpopo; to measure the extent to which postgraduate students in this faculty use RMS when writing academic papers; to identify the purposes for which the postgraduate students use RMS; and to identify postgraduate students' perceptions regarding the use of RMS Quantitative research orientation though a survey research design were adopted in the study. Self-administered questionnaires were distributed to 320 respondents and a total number of 244 questionnaires were returned and a response rate of 76% was achieved.

The findings of the study show that most of the respondents (59%) were aware of the RMS. Most of the postgraduate students became familiar with the software through attending library training. However, the study found that the usage of RMS was low as 45% postgraduate students indicated that they have used RMS before whilst, 55% indicated that they have never used the RMS before. RefWorks remains the most popular used software among postgraduate students. Most of the respondents' reason for using RMS amongst others was because they have received training, and some mentioned the fact that it was the only RMS they were familiar with. The study also found that the respondents use RMS to cite sources for assignments, research and papers, as well as to create reference list and collect and organise citations. The study revealed that the respondents like RMS because it assists and improves referencing. The study recommends for an intensified library training by academic librarians so that students should know advanced features of the RMS.

Keywords: Reference Management Software, Postgraduate students, Faculty of Humanities, University of Limpopo.

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CHAPTER ONE
INTRODUCTION AND BACKGROUND INFORMATION

1.1. INTRODUCTION

Among one of the fundamental and essential undertakings for the postgraduate students in tertiary or academic institutions is to conduct research and thereafter publish their research findings through writing reports of scientific research projects such as dissertations, theses and articles in scholarly journals. The process through which researchers, academics and postgraduate students communicate and share their research findings to their peers is known as scholarly communication. It involves a stage when new knowledge produced by researchers, academics and scholars is presented to their peers. Hesselbach, Petering, Berg, Tomasiewicz and Weber (2012) concur thus: original research results and the findings should be communicated to the scientific community for awareness and scrutiny. In the process of scientific writing to accomplish scholarly communication and academic citizenship, inclusion of references and citations in the manuscript is among others, one of the critical accomplishments to the truthfulness, genuineness and credibility of the scientific paper produced thereafter. Salem and Fehrmann (2013) state that a basic part of writing scientific or scholarly communication papers is the inclusion of citations and bibliographies through the undertaking commonly known as referencing.

Most researchers who have investigated and written about citing and referencing of sources in scholarly communication share the same sentiment that referencing and citations form an important aspect of scholarly communication and academic or scientific writing. Therefore, the use of citations and bibliographies when writing academic papers contribute enormously and to a larger extent to scientific writing. Through citing and referencing, researchers or scholars are in a position to demonstrate that they have read what other authors among their peers have written on the topic by referencing sources. Attention to referencing does not only makes one a better researcher, but it also improves the researcher's reputation amongst editors, reviewers and readers, as well as his or her peers (Santini, 2018). It is along these

lines that it becomes very essential for a researcher to acknowledge ideas and opinions of other writers by giving credit to the papers they have consulted. In turn, this will show that the researcher did not just use his/her own ideas only but he/she incorporated other writer ideas in his / her paper, which constitute to being a responsible and honest scholar.

Referencing and citing of sources consulted allow an author to acknowledge the ideas or words of others that are used in his/her work and thus avoid plagiarism (Lamptey & Atta-Obeng, 2012). Sungur and Seyhan (2013:26) advise thus: “a correct citation of references is obligatory to gain scientific credibility, to honour the original ideas of previous authors and avoid to plagiarism as well as other forms of research misconduct and unethical publishing.” Ballyram and Nienabar (2019) maintains that, research misconduct is a problem that tarnishes the researchers and research institutions’ image and compromises the reliability and credibility of scientific community. Ajubola, Issa, and Akinboro (2019) maintain that, it is very important to accurately cite any source consulted in academic papers to ensure that those reading the papers can find the sources to follow up arguments. Referencing and proper citing of the sources acknowledged is, therefore, “a key component for communication of the research findings” (Amrutha, Kumar & Kabir, 2018:54). Sungur and Seyhan (2013) confirm that accurate and complete recording of references is one of the key responsibilities of authors of research papers. It is also widely accepted that these citations and bibliographies are included and formatted using the style appropriate for the subject of the paper. Hesselbach et al., (2012) also state that when citing sources, it is important to follow an accepted standardised format. Therefore, “reference management, the storage, organisation, and use of references and citations, is the foundation upon which scholars begin to collect, manage, and archive their research findings as well as their own scholarly output” (Childress, 2011:150).

However, management of citations and bibliographies manually is one of the most time-consuming and difficult tasks for scientific writers or researchers, including postgraduate students. In a study conducted by Meredith (2013) it was found that most of the respondents, that is, 65% reported that using word-processed and

handwritten notes to record and manage their reference information was time-consuming and tedious, as well as erroneous. Therefore, the process of creating bibliographies and citing sources manually is being perceived as the most frustrating and tedious process and has always been a difficult undertaking for researchers, academics and postgraduate students when faced with the tasks of reporting their research results and producing their academic writings. Postgraduate students in particular, find it difficult to produce citations and references that are free from errors. The inaccuracy of bibliographic information stemming from inaccurately cited references is considered as a difficulty when retrieving information sources cited and referenced in academic and scholarly communication publications such as journal articles, theses and dissertations. The study of Guraya (2014) reports 18 per cent of citation error rate in the biomedical journals indexed from MEDLINE, while Mitchell-Williams, Skipper, Alexander and Scott (2015) ascertain that, several studies examined citation errors rate the percentage of referenced citation containing at least one error.

Substantial referencing errors were also noted to be relatively high from the studies conducted by Gupta (2017) where the author investigated the accuracy of two Indian Library and Information Science journals; viz., Annals of Library and Information Studies and Journal of Library and Information Technology. The author found that, out of 118 references verified only 39 (33%) were correct and among the 79 incorrect references there were a total of 151 errors (Gupta, 2017). Consequences of citation errors or inaccurate references can be very severe. Gupta (2017) further warns that citing in the wrong manner is problem in scholarly communication as errors in referencing can misguide the readers. Therefore, it is important for the researchers to provide the readers of their work with accurate citations to avoid difficulties in scholarly communication. The capability and trustworthiness of the researcher or author is also questioned because of the inaccurate citations and references. Sungur and Seyhan (2013: 26) also caution thus: “errors in citing references can arise from discrepancies between the source and reference, citation attributed to reference, erroneous placement of citation in the text and inaccurate identification of the reference among the list of references”. Therefore, when postgraduate students are engaged in

scholarly communication, bibliographic information of quoted references need to be provided properly and accurately so that readers who want to access the cited and referenced sources may be able to find them with ease.

References are therefore essential for further retrieval of information sources. It is the responsibility of the researchers to ensure that quality scholarship and research are generated on an ongoing basis and that the accuracy of citations and referrals are critical components of research in any scholarly communication for further retrieval process of information sources. Gupta (2018:70) advises that “referencing correctly according to a given citation guide is a prime responsibility of authors, since it protects them from charges of academic theft and plagiarism”. Referencing correctly enhances the quality and maintains the credibility of both authors and articles. The problem of inaccurate bibliographic information has therefore been an issue of concern in the practice of scholarly communication.

This has subsequently encouraged or prompted for new innovations such as Reference Management Software (RMS) to help researchers and writers in organising their citations and references (Salem & Fehrmann, 2013). In today’s scientific research and production, a dedicated software commonly known as Citation Management Software or Bibliographic managers can be utilised to manage the practice of bibliographic citation (Francese, 2013). “Currently, researchers can easily find, cite and store references using citation management software” (Sungur & Seyhan, 2013:26).

The new developments in the use of information technology (IT) within higher learning institutions has changed the way learning and research is conducted. IT has altered manual processes into automated processes, and has provided a new means of storing, organising and retrieving information from print-based materials to digitised information. In the course of their research, postgraduate students are obliged to search, collect, study and review a large body of literature and information in their fields of interests. Keeping track of and monitoring such literature and information can

be made more possible and accurate by using RMS, which will in turn facilitate academic writing.

RMS is defined as a software for scholars and authors to use for recording and utilising bibliographic citations or references. Amrutha et al., (2018) show that, RMS were developed to help authors manage their references, regardless of how many they may have. They also assist researchers to maintain consistency when referencing sources used to write a scientific paper. These software support importing, exporting, file attachment, database search and capturing references directly from search engines and databases. Some of the basic functionalities provided by RMS include adding, deleting, updating references, exporting, importing and searching from databases (Pradhan & Karmbe 2020). Therefore, reference or bibliographic management software come in handy to the advantage of researchers, academics and postgraduate students in particular, as a means for minimising errors when citing and referencing sources that they have used or consulted in their quest to produce new knowledge. RMS such as RefWorks, EndNote and Mendeley, can assist postgraduate students, academics and researchers to manage their references properly without flaws. Researchers can manage their references in different formats and distribute the findings with a minimum referencing errors (Ram & Anbu, 2014).

Since the inception and development of the RMS, librarians have sustained a strong interest in making the scholars and researchers aware of the software. Librarians are making efforts to communicate RMS to the academic community so that they can be used to the finest. The role of academic librarians is continuously growing as RMS have advanced. RMS offer more than just the ability to create reference lists and insert references. It also includes collaborative features and the identification of trends (Melles & Unsworth, 2015).

Ram and Anbu (2014: 503) argues that, “Libraries could play a key role in licensing of RMS to enable scholars to have access to the programs in their libraries. Librarians can also plan and conduct training on the use of RMS as well as creating awareness and promoting the use of these software”.

It is further declared that, training on academic writing or skills development using the RMS will be of advantage to the scholars. Library professionals can assist academic community to import and export several information from various databases. Therefore, it is very important for librarians to assist students and researchers in the area of referencing, especially when writing research papers and articles (Ram & Anbu, 2014). Covert-Vail and Collard (2012) believes that, librarians should provide graduates with training towards RMS such as RefWorks and Endnote. Academic librarians should consider and allocate additional resources in promoting RMS so that users can benefit. In many institutions, the library has come to be the main centre of expertise in matters related to RMS.

McMinn (2011) also stresses the importance of library' s role and mentioned that, there are significant levels of support for bibliographic management tools in major academic libraries as determined by the number of libraries providing licensing, the level of instruction, and the creation of instructional materials and tutorials.

Huffman (2014) deliberates, RMS as entries to academic integrity and maintains that librarians could assist students to comply with principles of academic integrity if they promote their benefits in terms of the time and effort they will save when using RMS. Therefore, it is very important for libraries to promote the use of RMS. An investigation into the extent to which postgraduate students are aware of and use these RMS will probably shed some light into the role that librarians in academic libraries can play in helping academics, researchers and postgraduate students in the process of scholarly communication.

1.2. BACKGROUND INFORMATION

The University of Limpopo (UL) is located in a township commonly known as Mankweng, about 30km East of Polokwane city. This university came into existence as a result of the merger between the former University of the North and the Medical University of Southern Africa (MENDUSA) on the 1st of January 2005 (Mohuba &

Govender, 2016). The University of the North was established in 1959, while MENDUSA was established in 1976. The merger of these two universities led to the configuration of the academic structures, establishment of single governance and management structures. However, following nine years of the merger, the two universities were separated in 2015, where the former University of the North remained with the name UL.

The UL consists of four faculties, namely, Health Sciences, Management and Law, Sciences and Agriculture, and Humanities. The faculty of Humanities, which is the subject of investigation in this study, comprises three schools, namely, the School of Languages and Communication Studies, the School of Education and the School of Social Sciences. This faculty offers wide range of programmes, leading to certificates, diplomas and degrees, part-time degrees and post-graduate up to doctoral level, which equip students with the knowledge, skills and values needed in modernising communities, i.e., the Southern African region and the world at large (University of Limpopo Annual Report, 2017).

Like any other university, the UL also has a library, which acquires, organises, and facilitates access to information and services that support teaching, learning, research and community engagement programmes of the university. The UL library has also incorporated a number of technologies to improve the delivery of information services to staff, students and researchers. In order to improve the support for academics, researchers and students with their research, amongst other resources the university library should have RMS for the management of references by academics, researchers and postgraduate students.

For quite some time, the UL has been subscribing to RefWorks. Some of the RMS such as EndNote and Mendeley are given as a complementary software to the university library as part of the subscription to Web of Science and ScienceDirect databases. RefWorks software was introduced by the UL library with the aim of improving academic scholarly works of researchers, students and academics, as well as ensuring that academics and researchers collaborate with one another using this

software. The library also publicised these tools to the academic community through training on how to use them when writing research papers. The suppliers of databases such as Elsevier and ProQuest also conduct training sessions on pieces of RMS such as Mendeley and RefWorks for postgraduate students with the aim of assisting them to acquire knowledge on how to best manage and manipulate their references.

1.3. RESEARCH PROBLEM

Most researchers share the same sentiment that researchers, more specifically postgraduate students are having trouble and struggle with citing, referencing and putting together their references as they write academic papers in the form of theses, dissertations and research articles. Lamptey and Atta-Obeng (2012) note that problems in citing and referencing sources, which include poor citing of reference sources, inconsistencies in reference citation, use of different citation styles is prevalent in the works produced by postgraduate students. Hence, postgraduate students end up with incorrect citations and references when writing academic papers. To their advantage with the emergence of new technologies, RMS come into the rescue and convenient to the advantage of postgraduate students who seek to produce works that are free from errors in terms of citation and referencing. The UL library has therefore also introduced RMS to support and improve the management of references and citations for academics, researchers and postgraduate students.

Even though the UL library has invested in these pieces of software to assist and provide postgraduate students with an easier way to collect, store and preserve, collaborate and cite their literature for their research, it is unknown whether they are aware of these products and are using this RMS optimally or not. Although it is possible to obtain usage statistics from the vendors of these products to establish their usage, it is still unknown who exactly uses them because these statistics are not presented according to who uses them and for what purpose. Lonergan (2017) stresses that even though the literature on the benefit and features of RMS is extensive, there are few studies investigating the awareness, preferences and the usage for RMS. Therefore, this study seeks to look at whether postgraduate students

in the Faculty of Humanities are aware of these RMS products and tools, and how optimally they use them when they write academic papers. In this study, awareness and use, as well as perspectives of postgraduate students towards RMS, are investigated.

1.4. PURPOSE OF THE STUDY

This study sought to observe awareness and usage of RMS y describing available RMS tools, determining their usage and establish the purpose for which they are used, as well as by identifying perception of students towards these RMS tools. Postgraduate students in Faculty of Humanities at the UL were chosen as a case for the study. The aim and objectives of this study are listed below:

1.4.1. Aim of the study

The aim of this research is to examine the awareness and usage of RMS among postgraduate students in the Faculty of Humanities at the UL.

1.4.2. Research objectives of the study

- To describe the types of RMS available for use at the university library
- To determine awareness of RMS by postgraduate students in the Faculty of Humanities at the UL
- To measure the extent to which postgraduate students in the Faculty of Humanities at UL use RMS when writing academic papers
- To establish the purposes for which the postgraduate students use RMS and
- To identify postgraduate students' perceptions regarding the use of RMS in Faculty of Humanities at UL.

1.5. SIGNIFICANCE OF STUDY

The study is conducted in order to improve on the awareness and usage of RMS tools. This may assist postgraduate students in organising, storing and managing their references without any problem. The study is very important in that it may create awareness of RMS programmes to students so that these resources can be used optimally for the benefit of the university and students. The study may also assist the university library in marketing these and in encouraging students to make use of RMS tools.

Investigating the use of these RMS by postgraduate students could also help to identify potential problems, which are being experienced by postgraduate students when they are accessing and using these resources for academic research. Subsequently, the library will be in a position to design and implement training interventions to ensure that resources are optimally used. It is therefore important to determine and understand which RMS are currently being used or underutilised, to make recommendations regarding possibilities for improving their utilisation.

Amidst current budget constraints, the university libraries spend a considerable proportion of their budgets to provide resources such as RMS to academics, researchers and postgraduate students who write dissertations and theses, and intend to publish research articles. Therefore, due to the large proportion of the library budget being expended and allocated on these resources, it is crucial that their utilisation of RMS should be checked from time to time. The impact RMS have on researchers and scholars should also be taken into consideration. This has implications on the learning and research process on the part of postgraduate students, as well as on cost reduction, budgeting, research and effective information dissemination on the library. The outcomes of the investigation could therefore be used by those who occupy the Library management positions to make informed decisions and to improve their electronic resources, services and systems.

1.6. DEFINITION OF TERMS

In this study, there are terms that feature frequently. Therefore, it is necessary to define those concepts for the benefit of the reader and according to the context in which they are used in this study. The terms that frequently appear in this study include referencing, bibliographic management tools, reference management software, citing, reference manager.

1.6.1 Referencing

According to Margam (2016: 164), “referencing is regarded as a standardised method of acknowledging all sources of information, data and ideas the writer uses in writing an article, book, theses.” “While referencing includes only sources of information referred in the research paper, bibliography provides a list of relevant sources that were cited in a scientific paper” (Kali, 2016). The tools referred to in this study are either reference or bibliographic management tools or software. Therefore, the concepts bibliographic management tools and RMS are used interchangeably.

1.6.2 Bibliographic management tools

According to Charan (2018:33) “Bibliographic Management Tools assist scholars and authors to make a database of retrieved information and documents to save both bibliographic information and full-text of these documents within this database for easy access when needed”.

1.6.3 Reference management software

RMS are software packages meant for scholars and authors to use for recording and utilising bibliographic citations and references (Francese 2013). RMS is a software which stores citations in a digital format, either on a local computer or via online interface to make the organising of research and formatting of bibliographies more efficient (Lonergan, 2017)

1.6.4 Citing

According to Ram and Anbu (2014) citing means writing a reference to a specific work or portion of work from books, articles, dissertations and reports from a particular author. Citing differs from referencing in that when citing, one notates, quotes, paraphrases, uses an idea or summarises from someone else works. Citing tells the readers where the information comes from, while referencing includes citing and compiling a list of sources cited.

1.6.5 Reference manager

“Reference manager is a software package that allows scientific authors to collect, organise, and use bibliographic references or citations” (Fenner, Scheliga & Bartling, 2014: page number).

1.7. RESEARCH METHODOLOGY

1.7.1. Research Design

The study used a quantitative research methodology through a survey research Design in which postgraduate students in the Faculty of Humanities of the University of Limpopo were asked questions about their awareness, the extent of usage and their perceptions towards RMS programmes.

1.7.2 Population and Sampling

The population of the study comprised of postgraduate students in the Faculty of Humanities who have registered for Honours, Master’s and Doctoral degrees in different schools within the faculty, because of their expectation to produce scientific papers for the fulfilment of their studies.

1.7.3 Data Collection

The researcher used the survey method whereby data was collected by means of self-administered questionnaires consisting of open-ended and closed-ended questions.

1.7.4 Data Analysis

The researcher uses tables and charts to present and analyse the data. The researcher also used the SPSS software to analyse the statistical data.

1.7.5 Quality Criteria

A pilot project/study was conducted to test the easiness of the questionnaire or data collection instrument, with a group of five respondents who did not form participants of the main study. This was used to assist the researcher to identify potential problems that may have an effect on the quality and validity of the findings. Furthermore, the pilot study was done to establish reliability and validity of the study, which will be discussed in depth in Chapter Three of this research report.

1.7.6. Ethical Considerations

Before any research can be conducted, certain ethical principles should be taken into consideration. In this study, the researcher had to apply for an ethical clearance certificate in order to carry out the study. Secondly, the researcher should also respect the privacy and confidentiality of the participants of the study. Therefore, the participants were requested not to write their names on the questionnaire. Before they could complete the questionnaire, they were also requested to complete and sign a consent form. Details of how ethical principles were adhered to in this study are provided in Chapter Three of this study or report.

1.8. ORGANISATION OF CHAPTERS

The study consists of the following chapters:

Chapter One: Introduction and background information: This chapter introduced the reader to amongst others, the research problem, aim and research objectives, research questions and the area of study. The background of the subject of investigation in this study is also provided in this chapter. The chapter also provided definition of terms that frequently feature in this study were also defined in this chapter.

Chapter Two: Theoretical framework and literature review of the study: Literature conducted in the field of the usage of RMS is outlined in this chapter. The theoretical framework or the model on which this study is based is also covered in this chapter. The literature review is organised according to the research objectives of the study.

Chapter Three: Research methodology: Chapter Three outlines the research methodology adopted and used for data collection and data analysis in the study. The chapter covers the research orientation, research design followed by the population, the adopted sampling method, as well as how data were analysed to arrive at the findings and conclusions of the study. Sampling, sampling size, ethical considerations, pre-testing of data collection instruments, validity and reliability and others are not mentioned.

Chapter Four: Data analysis and presentation: This chapter presents and analyses the findings of the study. The researcher uses tables and charts to present and analyse the quantitative data. The researcher also uses the SPSS software to analyse the statistical data. This chapter also provides the interpretation of data collected from the field of study. The findings are interpreted based on literature of studies that were previously conducted on the topic.

Chapter Five: Summary of the main findings of the study, conclusion and recommendations: Chapter Five discusses the **summary of the main findings of the study** conclusions and recommendations based on the findings of the study.

CHAPTER TWO
THEORETICAL FRAMEWORK AND LITERATURE REVIEW OF THE STUDY

2.1. INTRODUCTION

The previous chapter has introduced the reader to the problem that guides this research. Study aim and objectives have been stated in the previous chapter. The purpose of the current chapter is to present the existing literature on the usage of RMS programmes by postgraduate students in academic institutions elsewhere. This chapter introduces a critical analysis of previous literature review, which were carried out on the usage of RMS by postgraduate students. Ephron and Ravid (2019) defines literature review as a systematic review of literature on the researchers chosen topic. It objectively analyses, assesses and incorporates research findings relevant to the field of focus by scholars and researchers.

Reviewing literature enables researchers to critically analyse the current situation and to explore what is already known in the research area. Du Plooy-Cilliers, Davis and Bezuidenhout (2014:101), states that, “the purpose of literature review is to put the research study at hand into perspective, to determine what previous scholars have written on the topic as well as to identify the main models and theories that are relevant to the current research study”. The aim of literature review is to analyse what has already been studied in the field of study and see what is currently known. With literature review, the researcher should provide a critical, detailed and reliable understanding of the current state of knowledge and compare various research studies and theories as well as identifying the gaps in the current literature about the topic of choice (Efron & Ravid, 2019). Reviewing literature gives the researcher an idea of the best methodology to adopt for particular type of study. It also gives a researcher a broader perspective of a particular subject, which makes it possible to identify gaps in a topic. Du Plooy-Cilliers, Davis and Bezuidenhout, (2014) also maintain that literature review is very important to the researcher and necessary to document how the study adds to the existing literature.

This chapter looks into the studies of RMS and what these studies have investigated and uncovered, based on the objectives that the study set to achieve. The literature study first describes the RMS that are available in the market. Currently, there are many RMS on the market, including open source and subscription-based software. Only five of the RMS are described and their home and login pages displayed for the reader to have a better understanding of their features and functionalities. The description of RMS is followed by the literature related to the awareness and familiarity of postgraduate students towards RMS tools, which will be followed by a detailed review of literature on the usage of RMS by postgraduate students, including the purposes for utilising such tools. Lastly, the literature review also focusses on the perceptions and attitudes of postgraduate students towards RMS tools, based on their functionalities and features. However, before reviewing the literature related to this study, for a better understanding of the usage of RMS by postgraduate students, it is necessary to glance into the theoretical framework or model on which this study is based.

2.2. THEORETICAL FRAMEWORK UNDERPINNING THE STUDY

Theoretical framework explains the path of a research and grounds it firmly in theoretical constructs. Adom, Hussein and Agyem (2018) confirm that theoretical framework ensures generalisability and makes research findings more meaningful and acceptable to the theoretical constructs in the field of research. Theoretical framework support theory in research. It is considered as a theoretical model that creates structure that guides research. With theoretical framework, the researcher can connect to the existing literature and demonstrate an understanding of theories. Theoretical framework helps to stimulate research while at the same time ensures that the knowledge is expanded by providing direction to the research process (Adom, Hussein & Agyem, 2018).

Furthermore, theoretical framework provides the structure in showing how a researcher defines the study philosophically and analytically. Its role is to assist the researchers in situating and contextualising formal theories into their studies as a

guide. Moreover, it serves as one focus for the research and is linked to the research problem under the study. Based on these arguments, a variation of theories has been proposed to explain the diffusion and acceptance of technology by individuals. These theories aim to capture the attitudes and factors that facilitates the adoption of a new technology, amongst others are viz. the Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT).

2.2.1 Technology Acceptance Model (TAM)

TAM, developed by Davis (1989) is one of the popular theories used to forecast the acceptance and use of information systems and technology by individual or group of users (Adom, Hussein & Agyem, 2018). According to Rempel and Millenger (2015: 45), "TAM focuses on users' willingness to accept a new technology based on the factors of perceived usefulness of a new tool and the perceived ease of use in terms of using that tool". This is illustrated in Figure 2.1 below. Rempel and Mellinger (2015) remark that, TAM as a model help the researchers to understand the individuals use and adoption of RMS.

This study uses TAM adopted by Davis (1989) as the basis for usage of RMS by postgraduate students in academic libraries. This model is adopted in this study because it helps in developing an understanding of why postgraduate students accept or are hesitant to use RMS. According to TAM model, a postgraduate student who perceives RMS as difficult and a waste of time, would unlikely want to adopt this technology, while other student who perceives RMS to be helpful and easy to learn and use would likely to adopt it.

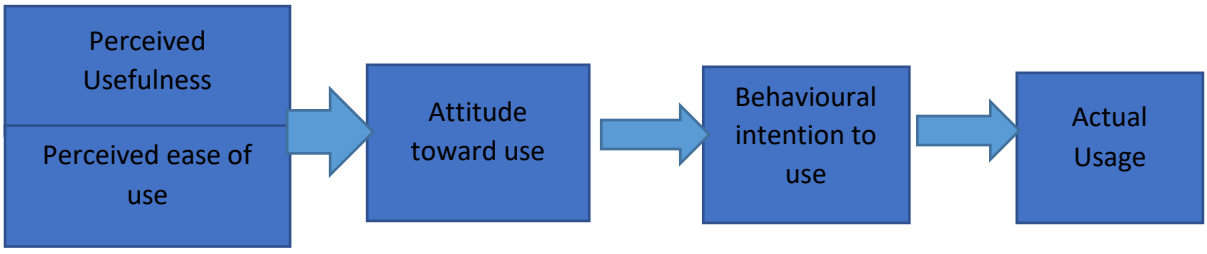

Figure 2.1 Original Technology Acceptance Model (Davis, 1989:985)

Several studies have used the TAM to examine the usage of RMS (le Roux & Breshears, 2016; Basak 2015; & Nilashi, Dalvi, Ibrahim, Zamani & Ramayah, 2016). For instance, le Roux and Breshears (2016) used TAM to assess the effectiveness of a workshop intervention that was conducted to introduce Zotero as an open and free bibliographic management software to staff and students at a rural university in South Africa. The findings of the study showed that the participants in the workshop developed a positive attitude towards the software, including their "perceived usefulness" and "perceived ease of use" of the software.

TAM has been widely studied and verified by various studies, which examine the individual technology acceptance behaviour in different information systems constructs. It is based on two factors, namely, "perceived usefulness" and "perceived ease of use". Surendran (2012) regards the TAMs' perceived ease of use and perceived usefulness as beliefs about a new technology which can influence the attitude of individuals. However, Zahid et. al. (2013) indicate that one of the limitations of TAM is that, as a model it does not regard factors such as age and education as external variables that could influence the acceptance and ability to use technology. Equally, it could be argued that behaviour is difficult to measure because personality traits often motivate the behaviour. Therefore, potential users of technology do not base their adoption and the ability to use new technology on their perception of the usefulness and ease of use of that technology even though it indicates that there could be other factors that may be responsible for their acceptance of technology.

2.2.1.1 Perceived Usefulness

Perceived usefulness is defined by Davis (1989) as the possibility that one is convinced that adopting a particular technology would improve the way one performs on a particular task. With perceived usefulness, individuals believe that that using a certain technology would improve their performance. Individuals will be likely to use or not to use a certain technology because they believe that it will help them perform their work better or it will not assist in performing their work. Khayati (2013:8) identifies perceived usefulness as "the gain in performance that an individual believes he or she can win when using a particular technology, system or software". The usefulness is

related to the perception of the person who uses technology in performing his or her tasks. In this study, the perceived usefulness refers to the possibility that using RMS could improve postgraduate students citing and referencing tasks when writing their scholarly papers. RMS can be useful if it delivers services to the postgraduate students. The usefulness and accuracy of RMS can also influence the students' attitudes. Postgraduate students may continue to use RMS if they consider it useful even if they were dissatisfied with their prior use and may not use the software if they do not consider it useful.

2.2.1.2 Perceived ease of use

Perceived ease of use as one of the fundamental beliefs in TAM model focuses on the user's expectation and believe that using a particular system or technology will not be complicated. Perceived ease of use can be associated with the user-friendliness of the RMS and is expected to influence the use of RMS. Davis (1989:20) argues that, "perceived ease of use is the extent to which an individual considers that making a use of a specific technology would be effortless and hassle free". In other words, ease of use means freedom from difficulty and distress. Thus, the application that is perceived to be easy to use is usually accepted and utilised by more people. In the case of this study, Postgraduate students may view technology as easy to use and they can also become self-confident in adopting the RMS.

2.2.2 Unified Theory of Acceptance and Use of Technology (UTAUT)

Venkatesh et al. (2003) proposed the Unified Theory of Acceptance and Use of Technology (UTAUT), which has since been used extensively by researchers in their pursuit to explain Information Systems or Technology acceptance and use. The UTAUT includes similar factors of perceived ease of use and perceived usefulness but also recognises that broader contextual factors may facilitate technology adoption. UTAUT uses behavioural intention as a predictor of the technology use behaviour. The aim of the model is to explain the acceptance of a technology from individuals. Goswami and Dutta (2016:52) sustain that, "UTAUT model consists of four core determinants of intention and usage viz., Performance Expectancy, Effort Expectancy, Social Influence and Facilitating Conditions and also of four moderators of key

relationships: Gender, Age, Experience and Voluntariness. The core determinants are the key factors which influence directly the user's behavioural intention to use new technologies." Thomas, Sighn, and Gaffer (2013) maintains that, the UTAUT constructs have direct effects on the behavioural intention and use of behaviour. Williams, Rana and Dwivedi (2015) argue that, these four constructs of UTAUT are moderated by gender, age, experience and voluntariness of use.

Performance expectancy is the belief that the use of technology will result in performance gains. It can be regarded as the predictor of behavioural intention and correspond with the perceived usefulness construct in TAM. Thus, Individuals are likely to adopt new technology if they believe that it will assist them to perform their jobs with ease. Effort expectancy is associated with the ease of use construct in TAM. Thus, the individual is concerned with the ease of use of certain technology. It has a significant effect on behavioural intention. Individuals are likely to adopt new technology if they believe that it will be free of effort as it will be user friendly.

Social Influence as a UTAUT construct, has to do with the individuals' believe that they should use the technology because others belief so. It this study, the postgraduate students may have intention to adopt the RMS if the influence of the important people such as family, friends and peers was positive. The facilitating conditions construct, is the perceived extent to which the organisational and technical infrastructure are required for support of the technology that exists (Sighn, & Gaffer 2013). With facilitating conditions, individuals perceive that technical support would be available if needed and influences such as the perception that the other individuals expect them to adopt new technology (Charness & Boot, 2016). Therefore, when individuals are able to access the resources and have the necessary support to use the technology infrastructure, they will be likely to adopt the technology.

In the study of RMS, facilitating conditions might have a positive influence on the postgraduate students to use RMS. If the students believe that they will have support to use RMS, it will be possible to accept it. According to this model, postgraduate

students are more likely to use RMS if they felt social pressure to do so and if they feel that assistance with technology is available from the suppliers of RMS if needed.

2.3 TYPES OF REFERENCE MANAGEMENT SOFTWARE

There are several types of RMS that researchers and scholars can use to manage their references and documents they use during the writing process such as Endnote, Mendeley, RefWorks, Zotero, CiteULike, and Citation Machine. These are regarded as the most commonly known and supported in academic libraries. There are two studies conducted in South Africa by Basak (2014a; 2014b), which mainly focus on the comparison of different parts of RMS. The first study was conducted in Pretoria and it compared RMS between the JabRef and RefWorks (Basak (2014a). The aim of the study was to establish the software in terms of their similarities and the differences. The findings indicated that the comparison in terms of importing fields from the databases using two different software have some similarities regarding importing fields such as author, title of article, name of journal, year of publication, volume number, issue number and number of pages and publishers. They also have some differences on Digital Document Identifier (DOI), Uniform Resource Locator (URL), International Standard Serial Number (ISSN), Keywords and language. Basak (2014c) conducted a similar study, which compared pieces of RMS such as RefWorks, Mendeley and Endnote.

The findings show Mendeley as having the capacity to import more data for researchers from Google Scholar as compared to RefWorks and Endnote. The study further revealed that RMS are widely used by researchers and can provide proper citing and referencing; compared to using manual systems. The study by Gilmour and Cobus-Kuo (2011) compare four well-known RMS, namely: RefWorks, CiteULike, Zotero and Mendeley considering the features offered by the software. The precision of the bibliographies that the RMS generate is also evaluated. To test importing and data management features, fourteen references from seven bibliographic databases were imported into each RMS, using automated features whenever possible. To test citation accuracy, bibliographies of these references were generated in five different styles. The authors found that RefWorks generated the most accurate citations. The

other RMS offered contrasting strengths: CiteULike in simplicity and social networking, Zotero in ease of automated importing, and Mendeley in PDF management. The findings indicated that, RMS' choice should reflect the user's needs and work habits (Gilmour & Cobus-Kuo 2011). However, this section of this report looks into commonly known RMS such as RefWorks, EndNote, Mendeley, Zotero, CiteULike and RefME citation generator. For the purpose of this study, these RMS are discussed so that it should be determined which one the postgraduate students in the Faculty of Humanities are familiar with or aware of.

2.3.1. RefWorks

Margam (2016:165) describes RefWorks as "a commercial online research management, writing and collaboration tool". Several university lib-guides show that RefWorks is considered to help authors and scholars to easily collect, manage, store and share all types of information including generating citations and bibliographies. The Write and Cite in RefWorks allows users to quickly insert and edit citations as well as adding them to the reference list (Fenner *et al*., 2014). Write and cite is compatible with Microsoft word thus the user can write and add a citation and reference at the end of the paper simultaneously. The greatest advantages of RefWorks is that it is the researcher can create different folders for managing a great amount references. RefWorks is web-based meaning that the researchers can use the software at any place where there is internet connection. When writing the manuscript, users can download the Write-n-Cite software that operates in Microsoft Office, which allows insertion and editing of citations in the manuscript. The UL library subscribes to RefWorks, which is supplied by ProQuest. The library, as well as ProQuest, often organises training on RefWorks to familiarise themselves on how it is used. Figure 2.1 shows the login page for RefWorks.

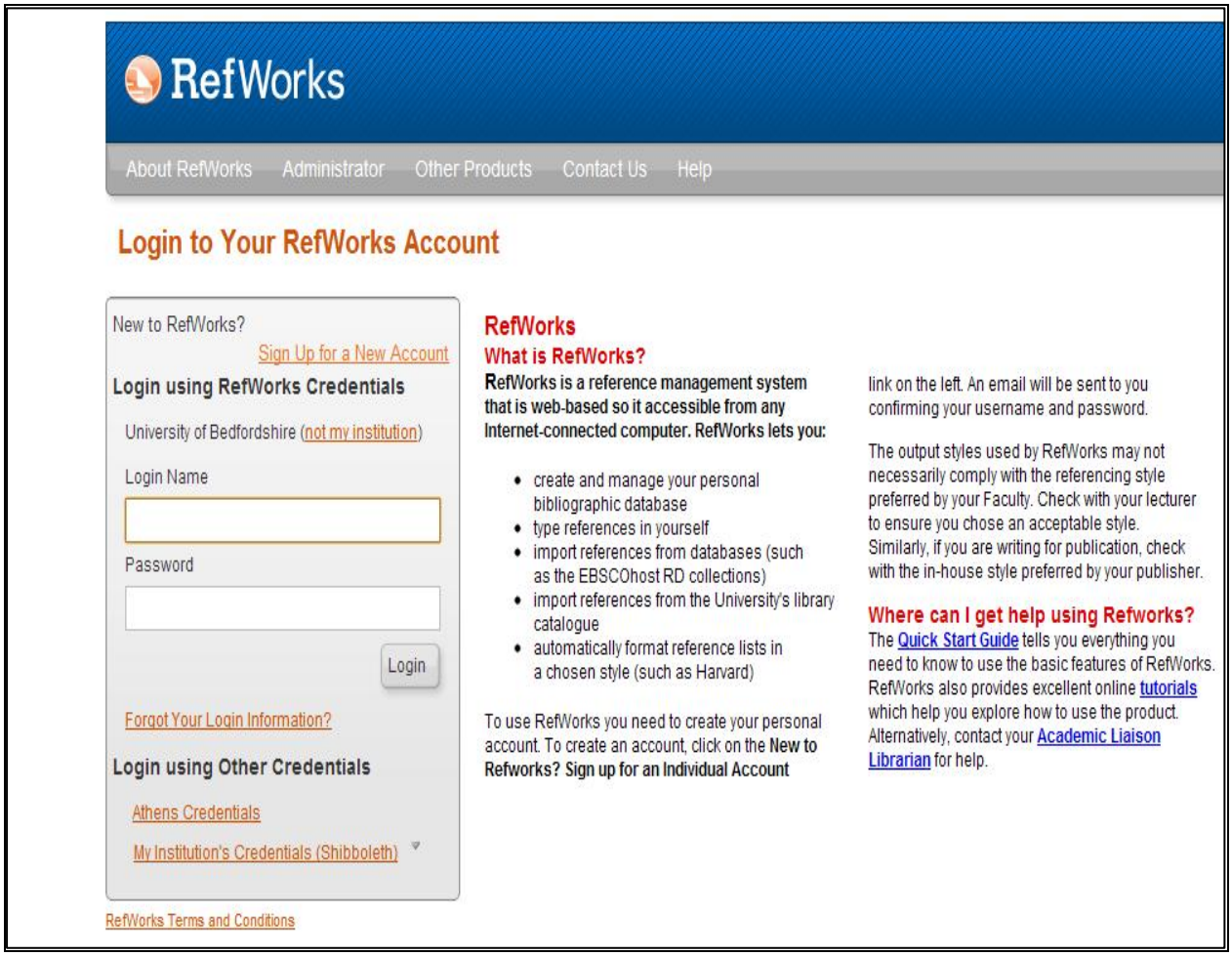

Figure 2.2. RefWorks Login Page

Figure 2.1 shows that the page provides that definition of RefWorks, including the purposes for which is designed. Links to the tutorials or manuals on how to use this product are also provided.

2.3.2. EndNote

EndNote is described as a commercial RMS that is used to manage bibliographies and references when writing papers. This RMS has been created by Thomson Reuters and offers a set of features and a huge list of citation styles, which perhaps make it the most comprehensive suite in the market (Margam, 2016). The software is accessible in two platforms, a full-featured stand-alone desktop and an online-only version called EndNote Web. EndNote Web comes with both individual and institutional subscription.

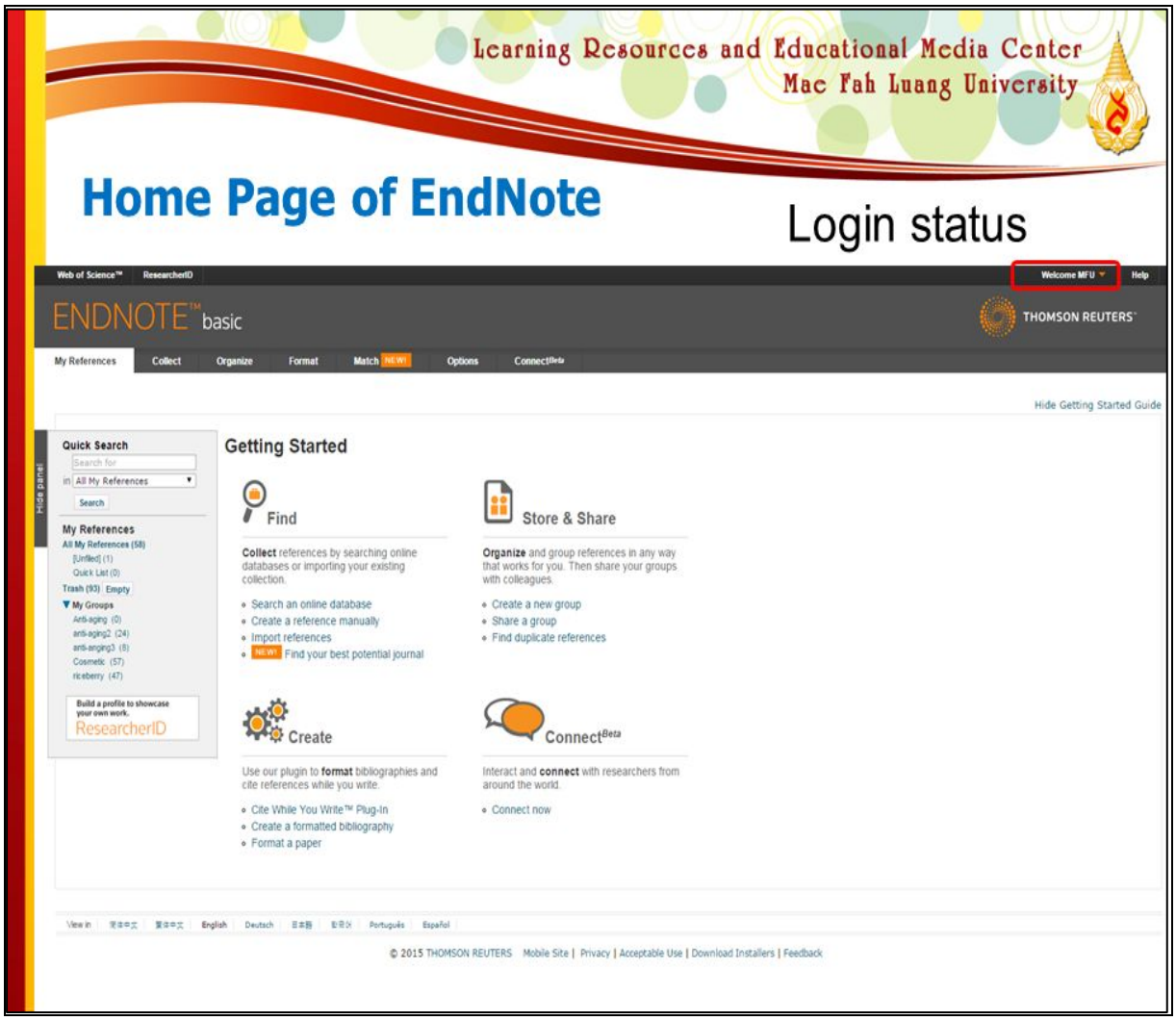

Figure 2.3. EndNote Home Page

The individual user may choose to a free or paid subscription to the EndNote Web. Institution with a subscription to Web of Knowledge receives free access to EndNote Web for their users. Fenner *et al.,* (2014) state that users can collect and import references from online resources and bibliographic databases. The downside of EndNote is that, it does not have collaborative features unlike Mendeley and Zotero. Thus, users EndNote cannot share their research papers and citations on the platform. Figure 2.3 is an illustration of how the EndNote front page looks like.

2.3.3. Mendeley

Mendeley is regarded as a free RMS and as an academic social network. The software is available for free and institutions and individuals can subscribe to get the additional features (Margam, 2016). According to Fenner *et al.* (2014), Mendeley serves as an academic social network for the researchers. “It is a powerful citation manager with social network features that enable user to creates Group, join and collaborates research work with others” (Parabhoi & Verma, 2019). Users can register their names free of charge on the platform to create research profile, add area of interests and upload research papers. Scholars can share their research with their peers by using this software. With Mendeley, researchers can collaborate online, share citations and documents online. Full-text searches on databases such as ScienceDirect can be done by using Mendeley. Searched documents can be saved in Mendeley library for referencing and future consultation.

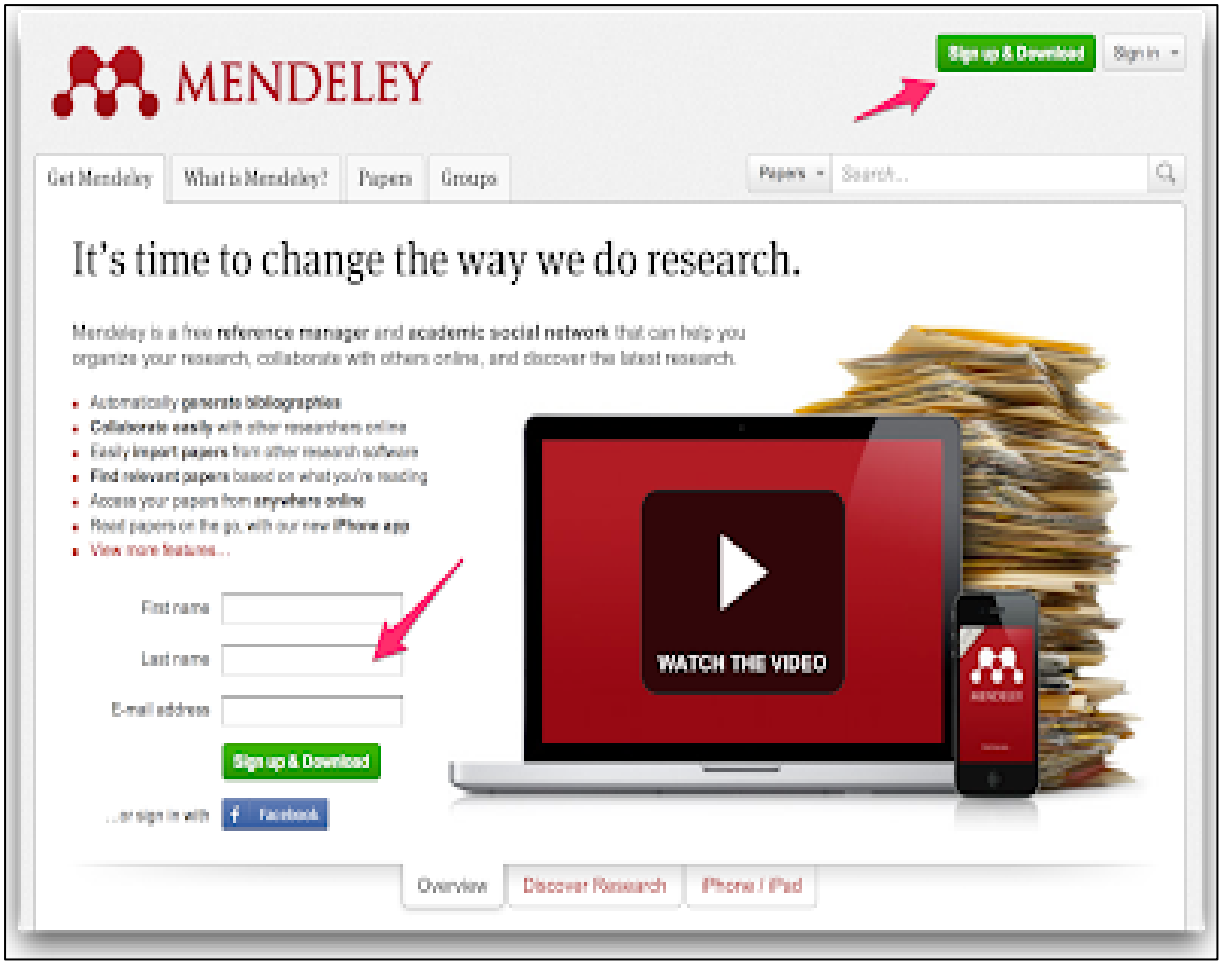

Figure 2.4. Mendeley Home Page

Mendeley can be accessed through the web and on a desktop with corresponding bibliographic information. It allows access to bibliographic information from several computers and users to collaborate. Figure 2.4 also shows that Mendeley also has a video which users can play and see how the software works.

2.3.4. Zotero

Zotero is an open access RMS which can be utilised by scholar without a subscription. Margam (2016) describes Zotero as software which can be used online to collect, manage and cite research sources. Researchers can gather citations that can be accessed remotely. It is available free in Windows/Mac/ Linux platforms and requires Firefox browser. With Zotero, researchers can build their personal library of sources of information from articles, books, documents and webpages. Fenner *et al.* (2014)

users are allowed to collect and organise a variety of web sources such as citations, full-texts webpages, images and audio files directly in the browser. Citations can be integrated into Microsoft Word and Open Office (Fenner *et al.* 2014). Figure 2.5 shows a typical logon screen for Zotero.

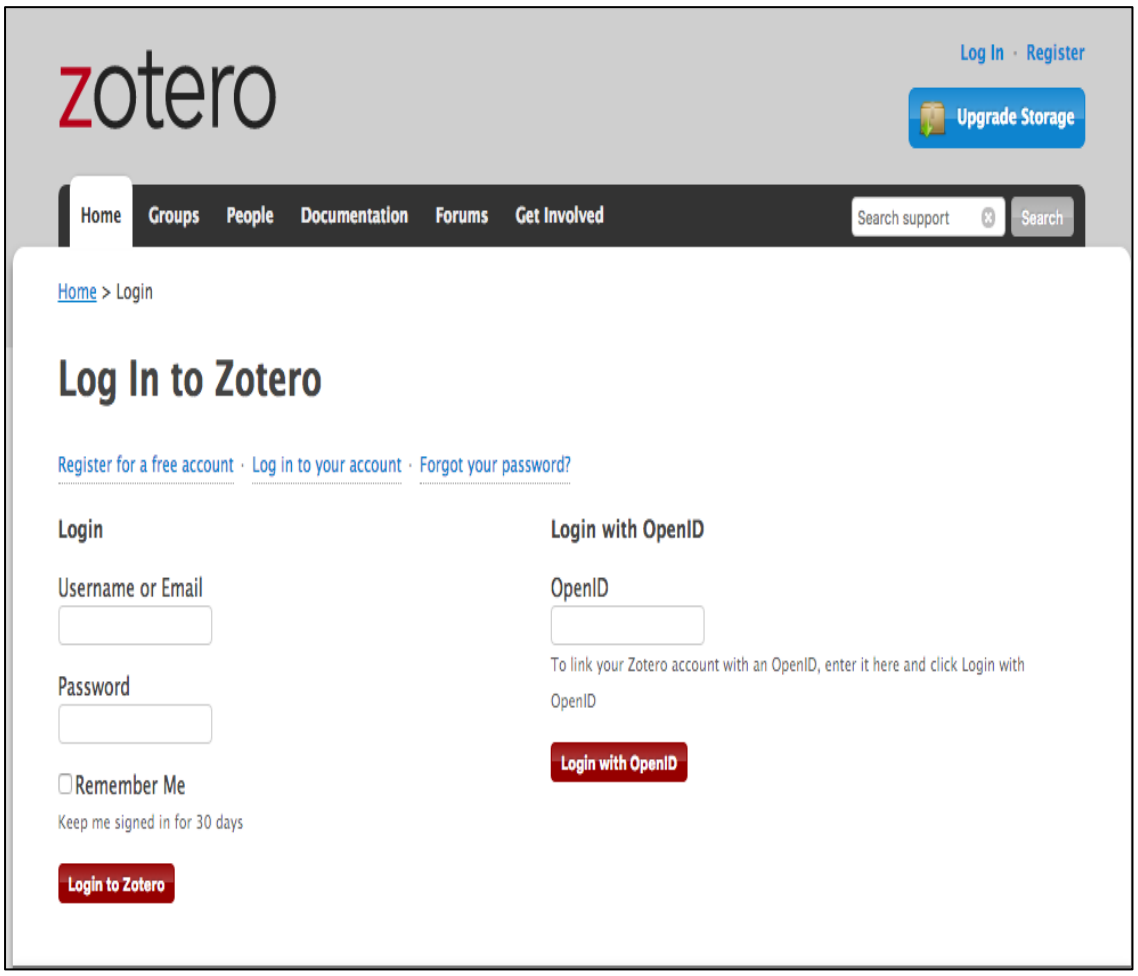

Figure 2.5. Zotero Home page

2.3.5. CiteULike

CiteULike is regarded by Margam (2016) as a free web-based RMS which can assist users to store, manage and discover scholarly references. As a social bookmarking tool, references can be entered via a Bookmarklet that captures bibliographic content in web pages. The advantage of CiteULike is that, users can assign tags to entries, which make it easier to organise and search through content. With CiteULike, references can be exported in BibTex and RIS formats. Profiles can be created, and

researchers can collaborate with each other using library connect (Fenner et al., 2014). The front page in Figure 2.6 for CiteULike shows that users can also connect it to the social media platforms.

Figure 2.6. CiteULike Home page

2.3.6. RefME Citation Generator

Starkey and Linares (2016:48) hold that "RefME is a citation management tool released in 2014 as a mobile app and subsequently as a web-based platform". It freely accessible online with limited features. Institutions and individuals can subscribe to RefME to get more features, which cannot be accessible within the free version. It

shares similar features to both free and subscription competitors, including Zotero, Mendeley, Endnote and RefWorks. The strength of RefME lies on the mobile app which stands out as a unique asset, as most of the RMS do not offer a mobile app that can be used to capture and annotate citations (Starkey & Linares, 2016). The login page for RefME is illustrated in Figure 2.7:

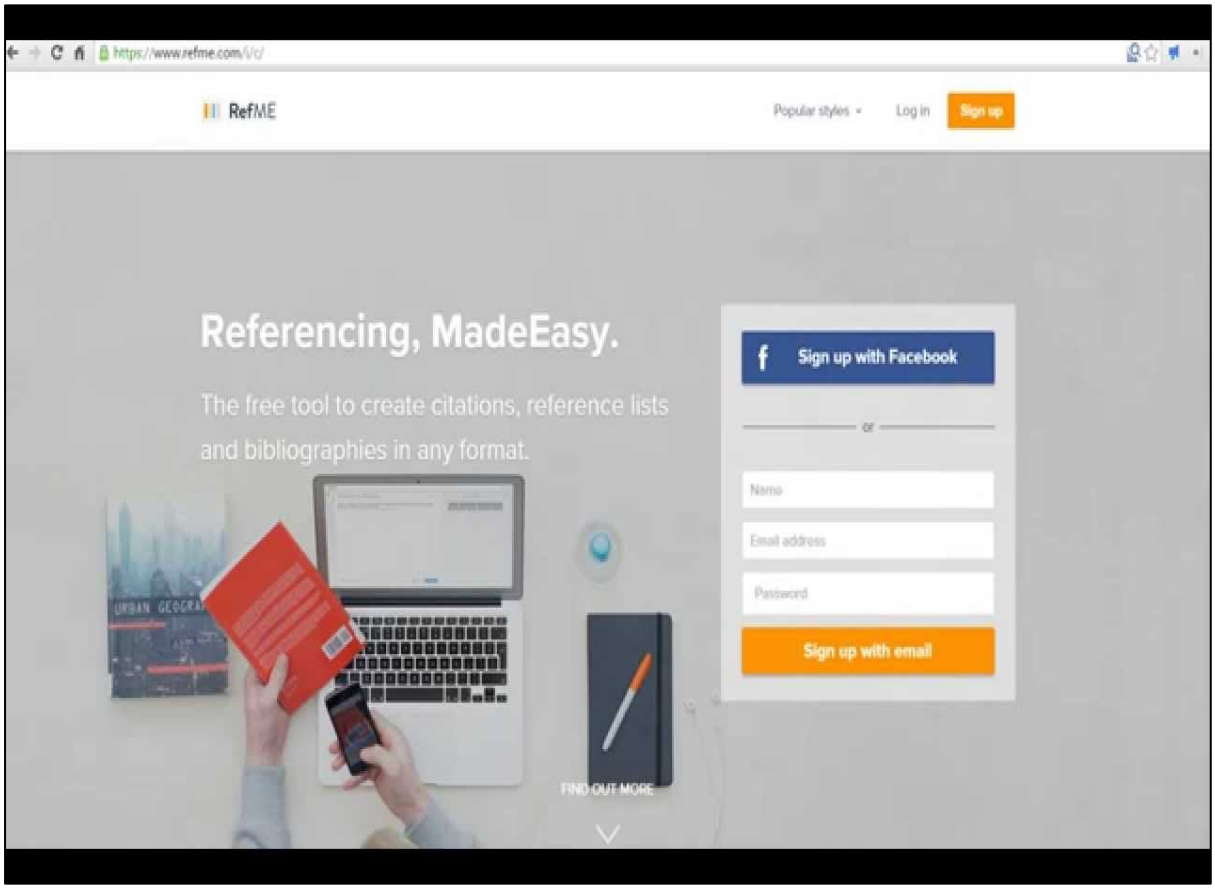

Figure 2.7: RefME Citation Generator Home Page

2.4. AWARENESS OF STUDENTS TOWARDS RMS

For a person to be able to use a particular resource optimally, he or she must first be aware of the existence of such a resource, its features and purported benefits. Akpojotor (2016) defines awareness as knowledge about a particular information and it is manifested through a particular behaviour. The more people are aware of a particular information resource; they are likely to use it. There are four constructs in

TAM: perceived usefulness, perceived ease of use, behavioural intention to use and actual system use (Davis, 1989). Ntshakala (2016:25) acknowledges that "even if awareness is absent from these four constructs of the TAM, it is still possible for some of these constructs to be linked to awareness in the other technology diffusion and adoption models". Perceived usefulness is therefore considered as an originator of awareness by the TAM.

Francese (2012, 2013) independently explored faculty awareness and preferences for RMS at Tallinn University in Estonia and the University of Torino in Italy. In the studies, it was found that, the researchers were mostly aware of RMS but were only familiar with more common packages such as Zotero and EndNote. Sarrafzadeh and Hazeri (2014) surveyed Iranian Library and Information Science (LIS) professionals to determine their preparation for teaching the use of RMS to LIS students. The authors found wide awareness of RMS approximately 90%, with 60% use. EndNote 95%, followed by Zotero 22.8%, were by far the most popular RMS.

Similarly, Ram and Anbu (2014) surveyed LIS professionals in India to assess their awareness and use of RMS. In total, 49% of respondents were aware of RMS, whereas 45% had used RMS. Reference Manager was the most popular tool 42%, followed by EndNote 15%. Lack of knowledge and time were the most frequently cited reasons for not using RMS. Bugyei, Kavi and Obeng-Koranteng (2019) also examined the level of awareness and usage of RMS among researchers of Council for Scientific and Industrial Research (CSIR) in Ghana. The findings from his study show that Most 80% of the scientists were aware of RMS although but 34% of respondents did not use the RMS. Contrary to the studies of Francese 2013; Sarrafzadeh and Hazeri (2014); Ram and Anbu (2014); Bugyei, Kaviand Obeng-Koranteng (2019) study discovered that Mendeley was the most popular used RMS among respondents.

Melles and Unsworth (2015) conducted a survey among post-graduates and thus interviewed students and academic staff in the Arts at Monash University. Although they found that 71.4% of students made use of an RMS, with the majority preferring EndNote, they were particularly interested in the practices of non-users (Melles &

Unsworth, 2015). Their findings challenge the notion that RMS are comprehensive solutions for all researchers. Instead, some students and faculty used RMS extensively. The authors argued that Reference Management, including the use of RMS, is a solution to competing demands on a researcher's workflow, and as such, there is no right answer. Kennedy (2011) observes that awareness is created through marketing and therefore recommends that libraries have a marketing plan supported by a marketing budget. He further states that, institutions should ensure that, effective marketing strategies are developed and implemented to market the RMS. Ram and Anbu (2014:449) stresses that There is a need for strengthening the awareness of RMS at an institutional level and hands on experience is also needed for Library professionals to assist in research writing as well as advocating for adopting the correct referencing style when writing research papers.

Childress (2011) maintains that, Librarians needs to be educated on RMS so that they can serve their users effectively with confidence. McMinn (2011) also stresses the importance of library role in providing training to the users and his survey about usage and distribution of RMS takes as starting point the library support and training. Libraries have been offering support for RMS for many years. UL library also subscribe to RefWorks as a standalone RMS together with EndNote Web and Mendeley, which comes as a complementary in databases such as Web of Science and ScienceDirect. The library is giving support to students by providing training for these RMS, additionally the Vendors are occasionally invited to come and provide extensive training to enhance the one provided by librarians.

2.5. PURPOSE OF RMS

Several scholars and researchers on the RMS have shown different purposes for which these tools can be used. According to Ram and Anbu (2014:501), "the purpose of RMS is to collect, organise, synthesise and cite references during the process of writing scholarly content either for research results or report". RMS can assist researchers with storing and organising references, generating citations and bibliographies in the style that the researcher prefers. Researchers can find relevant

literature and allow them to store and save them in the RMS database for later retrieval. RMS ensures accuracy of citation information, save time and manage a huge amount of bibliographic information. RMS was developed to help with the management of references regardless of how many researchers might have and to maintain consistency when referencing (Sarrafzadeh & Hazeri, 2014).

“On the other hand, RMS have become more sophisticated and their functionality has extended beyond the basic use of producing references in a consistent style, and they also offer tools for managing related documents, social networking tools, which allow researchers to build, share and discuss collection of documents and citation among colleagues” (Francese, 2011: 293). The advantage of using RMS is that they allow authors to organise vast amount of bibliographic information. They also guide users to gather, organise and utilise the bibliographic details. The function of RMS is to allow authors to generate their references at the end of research papers. RMS also provide citation for footnote or endnote levels.

Francese (2012) notes that RMS can also be used to save and organise citation information and create bibliographies for research. Such software have the options for organising and utilising citation information (Emmanuel, 2013). Researchers can be able to create bibliographies with their desired style and organise their citation information into folders for easy retrieval. According to Basak (2014a), RMS help researchers to write their research papers in desired formats. They also reduce workload burden for researchers in terms of editing and proofreading their references. They also enable them to avoid errors. Sarrafzadeh and Hazeri (2014) sustain that, with RMS, authors can be able to manage information and documents make a database of retrieved information at the same time it saves bibliographic information as well as full-texts documents for easy retrieval at a later stage.

Amongst others, RMS provides functions such as importing references from different sources, citing while writing, searching, editing and sharing references with other researchers. Researchers can use RMS to manage the bibliographic citations they gather through research (Francese, 2012). Francese (2013:146) also states that,

“reference management software act as a virtual research environment or a platform for the collaborator”. RMS helps researchers to find relevant literature and allow them to store bibliographic metadata in personal database for later retrieval. Researchers are allowed to insert citations and references with their chosen referencing style when using RMS (Fenner et al., 2014). “RMS has a unique support of handling huge amount of bibliographic data as a single unit, as well as assisting in organising the vast bibliographic details by guiding to gather, organise and utilise bibliographic details. Most of the RMS packages allow citing references while writing the content.” (Ram & Anbu, 2014: 502).

Bibliographic management tools allow scholars and authors to track articles and books for research purposes. These tools provide access to the materials either in the form of a link or in hosting of the actual document. Bibliographic Management Tools allow the users to export bibliographies based upon the metadata within. McMinn (2011) mentions that RMS are intended to help Researchers collect organise and utilise bibliographic information as effectively and differently as possible. Researchers use these tools in academia to manage the bibliographic citations encountered in their research. With these tools, scholars keep their track of scientific papers they write. RMS enables scholars to build a library of references by entering the particulars of each reference in a structured format with the function of building a database of citations, (Francese, 2011).

2.6. USAGE OF RMS

In TAM, perceived usefulness reflects the users’ subjective assessment of whether using a particular system would enhance the job performance (Davis, 1989). The perceived usefulness in RMS can be described as the extent to which a person believes that RMS can be a driving force towards achieving learning goals. Perceived usefulness is a construct that has been repeatedly revealed to influence the attitude and is a direct determinant of continued information systems intentions (Lee, Hsien & Chen, 2013). The usefulness and accuracy of the RMS also influence the respondents’ attitude. The respondents may continue to use them if they see it beneficial even if

they are not satisfied with the previous use. Perceived usefulness is positively related to increasing attitude towards RMS.

Melles and Unsworth (2015) report that postgraduate students have reported low usage of RMS in most studies that have been conducted on the use of RMS. Lonergan (2017) also refers to studies in which researchers from different scholarship and different regions of the world share similar tendencies in their awareness and use of RMS. The studies suggest that researchers are aware of the existence of RMS, but the actual usage of these products is lower. Those who use them rely on basic features such as organising references and organising citations. Francese (2011) has done a survey on the usage of RMS in an academic environment and the usage of RMS at the University of Torino in Italy, with focus on the practice of reference management in digital libraries and again or further investigated the use of RMS packages in Tallinn University, Estonia. The findings of these studies indicate a general awareness of RMS among respondents, but a low rate of RMS usage. The author suggests the need for librarians to provide more formation and support to users. Francese (2013) once more explore the use of RMS amongst staff across all disciplines at Torino University, Italy and the findings revealed that RMS is highly used as 79% of participants use EndNote and other RMS. Francese (2013) further stated that the respondents use basic functions of this software because they do not know how to use the advanced features. They also proposed that the academic library plays a more active role in teaching RMS programmes.

Lorenzetti and Ghali (2013) explore the usability and usage of RMS for systematic reviews. The purpose of their study was to determine the extent to which authors are using RMS to produce systematic reviews and to identify software that are used most frequently and their ease of use. The findings of their study indicate that the researchers used RMS to prepare their reviews. On the other hand, Ram and Anbu (2014) conducted tense a study on the use of bibliographic management software Bibliographic Management Software by Indian library and Information professionals, which focuses on assessing awareness of Bibliographic Management Software among library and LIS professionals. Ram and Anbu (2014) argues that there are a

number of supporting technologies that are intended to help in procuring needed citations and streamlining them for better research output. The study revealed that, there is a need for strengthening awareness of RMS at institutional levels and hands-on experience is needed for the Library professionals to help in the process of research writing. The study advocates for the adoption of correct referencing style in the writing scholarly articles.

Charan (2018) examined the use of RMS by Pharmaceutical science students in Maharshi Dayand University in Rohtak and found that 96% of the students used the RMS for their academic work. The study further shows that, the 41% respondents learned to use the RMS through teachers, 35% from their supervisors, 25% through friends and classmates, 16% through the internet while 14% said they learned through seminar/workshop. Chen et al. (2018) examined demographics of users of two social referencing managers such as Mendeley and Zotero. The findings indicated the difference between these two platforms where they found that Mendeley users are younger and more gender balanced while Zotero users were more engaged in social media. From their studies, it was further revealed that Mendeley users are interested in networking features such as browsing papers and groups and connecting to their peers for collaboration.

Amrutha, Kumar and Kabir (2018) examined the usage of RMS among researchers in the University of Kerala. The findings indicated that majority of the respondents used Mendeley for research work. The study also revealed that, they use RMS to save references and to import references from bibliographic databases. Melles and Unsworth (2015) conducted a survey, which examined the reference management practices of postgraduate students and academics in Humanities and Social Sciences at Monash University, Australia. The study found that the reference management practices of students and academics are personal and do not always involve the use of RMS. The study also focused on RMS evaluation, the use by postgraduate students of RMS, as well as the management of references by academics. The findings of the study reported a high level of RMS use among doctoral students as compared to academic researchers.

Meredith (2013) presented a paper at BELITA Conference in Newcastle where she was hoping for a robust discussion about the advantages and disadvantages of Endnote, RefWorks and Zotero, but only to find that hardly anyone who attended the BELITA session used referencing software. This influenced her to conduct an online survey of academics and students in the Oxford University Faculty of Law where they were asked to show the methods which they use to manage citations. They were provided with the options from where they can choose index cards, handwritten notes, notes in a word processor, excel or Access, Endnote, RefWorks, Zotero, Mendeley and others. It was found the majority 65% of the respondents took notes in a word processor by hand and only five respondents tried a referencing software (Meredith, 2013).

2.7. PERCEPTIONS TOWARDS RMS

Perceived usefulness and perceived ease of use are the most important factors in TAM. Amrutha et al., (2018) note that to improve the usage of RMS in libraries, it is necessary to understand the reason behind the usage of a particular software over the others. Some software can be used because they are easy to use, some because users are familiar with a particular software and some are used more than others are because they are free to access. Some software can be used because they are only software available in their organisation.

Rempel and Mellinger (2015) explore how researchers choose a bibliographic management tool and what makes them to continue using them. The findings showed that ease of use was the most important factor in choosing a bibliographic management tool. Childress (2011) claims that it is always a matter preference for the researcher to choose the right Citation Management Software. Zaugg et al., (2011) share the same sentiment by indicating that choosing a citation management software depends on the researcher's preference. Some studies show that students and academics choose between different systems, software, and software features to suit their particular needs and the type of work they are involved in (Childress, 2011; Zaugg

et al., 2011 and Francese, 2013). Francese, (2013) further states that, embracing a specific system in most times comprises some form of cooperation between the purported benefits and shortcomings of a particular system. To this end, most university libraries have resorted to displaying on their websites or subject Libguides, the differences between different RM tools, to allow users to choose according to the preferences. For instance, Rhodes University Libguides in South Africa provide a table comparing three of the most commonly known RMS to allow library users to be able to compare between and choose between RefWorks, Mendeley and Zotero. Researchers choose to use the particular RMS because it saves time, whereas some say that it also wastes more time because they still need to edit the references.

Although RMS have decreased, manual effort of referencing it may not always guarantee correct referencing. Kali (2016) argues that referencing with the use of RMS may be incomplete since data fields may not be identical and accurate in several online databases due to lack of essential information fields. These kind of challenges may lead researchers to leave the software altogether and look for other methods that are convenient.

In a survey conducted by Meredith (2013), it was found that, academics and students at the Oxford University Faculty of Law in the United Kingdom did not use the RMS. The reasons for not using the RMS vary thus: some found it complicated, others found it tedious, and several found they could not insert notes and footnotes into their documents, or that the footnotes inserted needed a good deal of correction. Several other participants thought that referencing software would be useful but did not have time to learn on how to use or to put their existing references into it (Meredith, 2013).

Lorenzetti and Ghali (2013:3) study found that, “Several authors also identified specific challenges associated with these RMS. Some of the challenges among others were: record errors that occurred when downloading references from electronic databases such as MEDLINE; difficulties in identifying and deleting duplicate records from reference management databases; PC/Mac-incompatibilities for users of EndNote and Reference Manager; errors in journal output styles; difficulties in transferring reference

databases from one software package to another, and delays in accessing RefWorks databases.

Gilmour and Cobus-Kuo (2011) maintain that, many RMS still requires users to edit the reference list in order to maintain the accuracy of the references. Hantla (2017) advises that any downloaded bibliographic data needs to be manually checked, because RMS might be incapable of finding errors in the downloaded content. It might happen that, sometimes these references may have been placed incorrectly in the sentence or paragraph. Obviously, these aspects of referencing will need to be corrected manually and not with software-intelligence. Moreover, researchers need to edit the references and refer to the referencing technique manuals, as RMS cannot correct typing mistakes or omissions from the references that was entered manually or downloaded from databases. Researchers still need to proofread references to be accurate.

Hantla (2017) ventures to state thus: RMS includes plug-ins that work with word processing software. As with any software, there is potential for bugs. Nevertheless, when you are using referencing software in conjunction with word processing software, there is additional potential for corruption because your writing is dependent on two pieces of software.

2.8. SUMMARY

Chapter Two dealt with the literature review involving the usage of RMS in academic libraries. The chapter first looked into the theoretical model on which this study is based, that is TAM, followed by the literature study on the description of different types of RMS tools that are commonly known, including RefWorks, Mendeley, Zotero, Endnote, Cite-U-Like and RefME.

The chapter further provided a detailed account of the literature that has been published, based mainly on the objectives of the study. The next chapter looks at the research methodology techniques, which were used in this study to collect data.

CHAPTER THREE
RESEARCH METHODOLOGY

3.1. INTRODUCTION

The previous chapter provided a detailed account of a literature review on the awareness and usage of RMS in academic libraries, as well as the factors that influence the choice of usage for specific RMS by users in general. The current chapter discusses in detail, the research methodology and techniques that were used to collect and analyse data in this study. The chapter covers the research orientation and design, the targeted population, sampling and sampling methods and procedures that were adopted for the purpose of collecting data for the study. The choice of data collection methods, as well as pilot study, which covers issues of validity and reliability in this study, is also covered in this chapter. The chapter also present ethical issues that were taken into consideration before and in the process of collecting data.

Maree (2016) defines research methodology as a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. During research methodology process, the researcher studies the various steps that are generally adopted by the researcher in investigating his or her research problem along with the logic and reasons behind their choice or adoption. The purpose of research methodology is to describe the research approaches and designs adopted in a particular study. The research approaches or orientations adopted in a specific study are always guided by the paradigm to which the research subscribes. Therefore, before discussing the methods adopted in this study, it is necessary to touch base on those research paradigms.

3.2 RESEARCH PARADIGMS

The research paradigm gives the researcher the idea of the choice methodology and the nature of research. There are several predominant paradigms in research. Every paradigm has its own ontological and epistemological perspective. Positivism and interpretivism are the two main paradigms that form the basis of research in social sciences (Kumar, 2014; Pickard, 2013).

3.2.1. Positivism

Positivism is guided by the principles of objectivity and deductive logic. The positive framework operates from the assumption that society should be studied empirically and scientifically. The positivist researcher uses quantitative data to answer the research questions and formulate theories. According to Du Plooy-Cilliers, Davis and Bezuidenhout, (2014) positivists believe that, valid knowledge can be gained from objective and observable evidence. The aim scientific enquiry is to develop generalisations about causal relationship between variables. Therefore, facts are recorded in numbers and processed using statistics. Maree (2016:23) notes that: “positivism postulates that only objective and observable facts can be the basis of science.

3.2.2. Interpretivism

Interpretivism foregrounds the meaning that individuals or communities assign to their experiences”. Interpretivism was developed as a reaction to the shortcomings and limitations of positivism especially in its application on social sciences. Interpretivists argue that, people are fundamentally different from objects, thus researchers cannot study human beings the same way they would study objects in the natural science because human change all the time as they are influenced by their environment. They want to study the human behaviour whereas the positivists try to discover and explain the relationships. According to Interpretivists the truth is dependent on people’s

interpretation of facts thus, they are not interested in generalisation (Du Plooy-Cilliers, Davis & Bezuidenhout, 2014).

Therefore, the difference between the two lies in the fact that positivism researchers investigate things as they are, which are based on laws of nature, while in interpretivism, subjective meanings are crucial to achieving understanding and meaning. Positivist research paradigm is mainly concerned with how individuals make sense of the world, how they experience events and what meaning they attribute to phenomena. They are more concerned with the quality of the experience, rather than causal relationship, interpretivist researchers are more preoccupied with counting occurrences, volumes in order to carry out statistical analysis". From the two research paradigms, two research approaches emerge, namely, quantitative and qualitative research approaches or orientations that are discussed below

3.3 RESEARCH ORIENTATION OR APPROACH

Creswell & Creswell (2018:3) states that, "research approaches are plans and procedures of research which involves the steps from broad assumptions to detailed methods of data collection, analysis and interpretation". Several scholars have therefore indicated that there are three basic approaches to research, namely, qualitative and quantitative and mixed method research approaches.

3.3.1 Qualitative research approach

Qualitative research approach refers to the approach that attempts to collect rich expressive data in respect of a context with the intention of developing an understanding of what is being observed or studied (Daher, Carre, Jaramillo, Olivares, & Tomicic, 2017). As a research approach, qualitative research is concerned with understanding the process and the social and cultural contexts that underlie various behavioural patterns (Aspers & Corte, 2019). It is concerned with the reasons behind a certain behaviour of individuals or groups. Ritchie, Lewis, Nicholis and Ormston (2013) confirm that qualitative research is concerned with understanding the process

and the social and cultural contexts which underlie various behavioural patterns and is mostly concerned with exploring the why questions of research. “The focus in qualitative research orientation is to understand, explain, explore, discover and clarify situations, feelings, perceptions, attitudes, values, beliefs and experiences of a group of people” (Kumar, 2014:104). In qualitative research, the researcher focuses on recording, analysing and attempting to discover the deeper meaning and significance of human behaviour and emotions. The main aim of the researcher is to gain an understanding of respondent’s experiences. Qualitative research orientation differs from the quantitative research orientation, as it does not obtain information from the respondents in order to generalise the findings to a larger group of people. It often involves a smaller number of respondents to study.

3.3.2 Quantitative research orientation

Quantitative research orientation is an approach for testing objective theories by examining the relationship among variables. These variables can be measured on instruments so that data collected in numbers can be analysed using statistical procedures (Creswell & Creswell, 2018). With quantitative research orientation, data is presented in numbers and analysed using statistics. Therefore, it can be used to explain and measure the relationship between variables using numbers.

Variables are things like weight, performance, time, and treatment. The researcher articulates the relationship between variables using effect statistics, such as correlations, relative frequencies, or differences between means. Quantitative research approaches generate and provide numerical data to interpret research questions and problems. Quantitative research approaches are more specific and well-structured and have been tested for their validity and reliability and can be explicitly defined and recognised. These research approaches, involve a large representative samples and structured data collection procedures. As a result, information can be collected from the existing and potential respondents using sampling methods by sending out online surveys and questionnaires. In quantitative research orientation, the measurement and classification requirements of information that is to be gathered demand that, the study designs are more structured, rigid, fixed

and predetermined to ensure validity and reliability of the information and its classification (Kumar, 2014).

However, one of the limitations of quantitative research orientation is that, it does not give the researcher an option to review the responses from the respondents. The answers given to the researcher remains the same even if they seem confusing and invalid. Therefore, the researcher cannot be able to get clarity as compared to qualitative research, whereby respondents can be asked to clarify some of the answers. For the purpose of the current study, the quantitative research orientation was adopted. However, the researcher asked few open-ended questions to give the respondents a chance to express themselves.

3.4. RESEARCH DESIGN

“A research design is a plan or strategy that moves from the underlying philosophical assumptions to specify the selection of respondents, the data gathering techniques to be used and the data analysis to be done” (Maree, 2016: 72). Furthermore, Kumar (2014:122) states that, “research design is a road map that a researcher decides to follow during a research journey to find answers to research questions as validity, objectively, accurately and as economically as possible. It is a procedure or an operational plan that details what and how different methods and procedures to be applied during the research process”. Research design allows a researcher to plan, structure and strategise the investigation to obtain answers to research questions or research problems. The researcher chooses to combine various components of the study in a logical manner and ensures that the research problem is successfully addressed. Research design provides model for data collection, evaluation and analysis.

This study adopted a survey research design. A survey research design is one of the most common types of quantitative social sciences research. In this kind of research, the researcher selects a sample of respondents from a population and administers a

questionnaire to them. The questionnaire can be administered as a written document that is completed by the person being surveyed (Wagner, Kawulich & Garner, 2012). According to Leedy and Ormrord (2015:159):

> Survey research involves acquiring information about one or more groups of people about their characteristics, opinions, attitudes or previous experiences by asking them questions and tabulating answers. The goal is to learn about a large population by surveying a sample of that population which is called descriptive survey.

Researchers are required to collect data from a large group of people using surveys. Thus, they are suitable for collecting data that are representative of populations that are too large to deal with by other methods of data collection (Monette, Sullivan & DeJong, 2011). With survey research design, the researcher can be able to collect data from the participants to assess the frequency and distribution of natural variables. Survey research design is divided into three methods, namely, descriptive, explanatory and exploratory survey.

Pickard (2013:112) argues that, “the descriptive survey research design pronounces a situation and/or look at trends and patterns within the sample population group that can be generalised to the defined population for the study”. Furthermore, the data gathered in descriptive survey are usually a mixture of measurement, amounts, and brief narratives, which are then analysed using descriptive statistics such as measures of central tendency and standard deviations.

Exploratory survey research design, on the other hand, seeks to establish cause and effect relationship between the variables. With exploratory survey design, the researcher usually examines a new subject of study. The study is done to satisfy the researchers’ curiosity and desire for better understanding the subject understudy. Kumar (2014) says that, exploratory research is undertaken with the intention to discover an area, which is not well known. Exploratory research design can be useful where there is limited knowledge or information about a certain subject. Thus, the researchers are able to gain a broad understanding of a situation being studied (Bless, Higson-Smith & Sithole, 2013). The aim of exploratory research is to collect new information that has not been researched before. Researchers may use exploratory

research to gain familiarity with the new phenomenon and acquire more information on the existing one. The intention of exploratory research is not to offer conclusive solutions to the existing problems but to assist the researcher to have a better understanding of the problem.

On the other hand, explanatory research design seeks to clarify a relationship between two aspects of a situation (Kumar, 2014). When using explanatory research design, researchers acquire a deeper understanding of the relationship between two variables than they do when using descriptive methods (Higson-Smith & Sithole, 2013). Explanatory research is conducted to discover and report relationships among different aspects of the phenomenon in the study. It increases the understanding of research on a particular subject. Similarly, to exploratory research, explanatory research also does not provide conclusive results but assist the researchers to determine why things happen.

Quantitative research designs can either be in experimental research design and non-experimental research design. Experimental research is conducted with a scientific approach using two variables and allows the researcher to test their idea in an organised setting before it goes to the public (Creswell & Creswell, 2018). It is generally conducted in environments and laboratories controlled by the researcher with the purpose of determining whether an independent variable, manipulated by the researcher influences dependent variable.

Non-experimental research designs are used in descriptive studies in which the units that have been selected to take part in the study are measured on all relevant variables at a specific time. In experimental research, variables are measured as they naturally occur without any further manipulation. Therefore, there is no manipulation of independent variables. Most of the non-experimental research design are surveys that are done to obtain quantitative information that can be used to describe or explore certain research topics (Maree, 2016).

The researcher opted to use survey research design because it can be conducted faster and cheaper as compared to other methods such as experimental designs and

observations. Thus, the researcher would be able to save a lot of time and money to conduct the research. The other advantage for using the survey research design is that data collected are relatively easy to analyse and can obtain views from a large group of people.

The study used a quantitative research methodology through a survey research design. Postgraduate students in the Faculty of Humanities of the University of Limpopo were asked questions about their awareness, the extent of usage and their perceptions towards RMS programmes. Quantitative research requires that the data collected can be expressed in numbers so that it can be quantified.

3.5. DATA COLLECTION METHOD

Data collection is one of the most important aspects of any research study. Each research orientation has its own data collection methods. In this section, data collection methods in qualitative and quantitative research approaches are discussed and a choice of data collection method to be used in this study is made. Data collection methods in qualitative research orientation include observation and interviews, while data collection in quantitative research approach include questionnaires.

3.5.1. Observation

Observation as one of the qualitative data collection method involves recording of events as observed by an outsider. Researchers can observe the social behaviour of people interactions by recording the number of times those people interact with participants (Bless, Higson-Smith & Sithole, 2013). Observation is applicable in cases where the researcher is not able to collect full and accurate information by directly questioning the respondents. The respondents might not be cooperative as it will be difficult for them to separate themselves from their interaction. The researcher can look directly at what is taking place rather than relying on second-hand information. Observation is the best approach if the researcher is not interested in the perceptions and attitudes of the respondents. It is ideal for the researcher who is collecting

information on the behaviour. One of the shortcomings of observation as a method of data collection is very demanding way of gathering data and may involve a lot of time as a researcher has to wait for an incident to happen in order to study that particular incident.

3.5.2. Interviews

On the other hand, interview, as a data collection method in qualitative research, encompasses direct personal contact with a participant who is asked to answer questions relating to the research problem (Bless, Higson-Smith & Sithole, 2013). An interview is an important data collection tool that involves verbal communication between the researcher and the respondent. They are very good in exploratory and descriptive studies. As a result, respondents can discuss their interpretations of their situations they come across and express how they see things from their own point of view. In qualitative research, there are different kinds of interviews, which are the unstructured, semi-structured and structured interviews

Unstructured interviews are often called the open-ended interviews, which take a form of a conversation the researcher uses to explore the participants' views, ideas, beliefs, and attitudes about certain events or phenomena. These kinds of interviews are normally spread over a period of time and consist of events, but the focus is mainly on their own perceptions of the event or the phenomenon being studied.

> In structured interviews, the researcher asks predetermined set of questions using the same wording and the order of questions as specified in the interview schedule. The structured interview provides uniform information, which assures the comparability of data (Kumar, 2014: 145).

Interviews are also time consuming and financially costly as a process, especially when prospective participants are spread over a wide geographical area. Time allocated for an interview must allow for arranging, travelling to the location. There are limitations to the anonymity of the respondents and the responses given by the interviewees may be biased due to the presence of the interviewer. Thus, the interviewees may respond in a more socially acceptable manner than they would if they provided their responses in a written form where there is a little possibility of them

being identified (Wagner, & Kawulich & Gamer, 2012). In research, the consistency of information collected from the interview can be obstructed by the nature of interaction between the interviewer and interviewee (Kumar, 2014). Creswell & Creswell (2018) argues that, in structured interviews, the answers from the respondents may be biased if the researcher is present during data collection. Thus, the respondents may give the answers they think may please the interviewer. Respondents may be afraid to give the correct responses thinking that the information might be used against them because there is no anonymity.

3.5.3. Questionnaires

A questionnaire is a compilation of list of questions, whereby the respondents should provide answers to. In a questionnaire, the respondents must first read the question, interpret what is expected of him or her, and then provide the answer. This entails that questionnaires can be administered by mail or handed to the participants personally by the researcher at any place such as work places, schools and homes and be returned to the researcher after completion. A questionnaire, as method of data collection, consists of closed and open-ended questions.

Babbie (2016) refer to closed-ended questions as questions in which the respondents are asked to choose answers from the list provided by the researcher. Closed ended questions in survey research, provide a greater uniformity of the responses and they are easily processed as compared to open-ended questions. Closed ended questions are very useful for collecting factual information. They assist the researcher to ensure that the information needed is collected and the answers are often easier to analyse because they include ready-made type of questions

Open-ended questions, according to Leedy and Ormrod (2015) require the respondents to respond to the questions with lengthy answers. They are very good in obtaining opinions, attitudes and perceptions on a certain subject. With open-ended questions respondents are free to give the answers in their own words and they can give clarification where its due. Open-ended questions enable respondents to write in their own terms, to explain and qualify their responses and avoid the limitations of pre-

set categories of responses. On the other hand, they can lead to irrelevant and redundant information. Open-ended questions may require much more time from the respondents to enter responses thereby leading to refusal to complete the item.

Questionnaires are instruments usually used for collecting data in survey research. Using self-administered questionnaire allows the researcher to organise the questions and receive responses without having to talk to respondents. Questionnaire studies are aimed at receiving comparable answers from all participants. Through questionnaires, the researcher should set questions that collect directly or indirectly the respondents' reasons for a specific behaviour or attitude and show their state of information concerning the issue under examination (Flick, 2011).

3.5.4. Choice of data collection method

The researcher used the survey research design whereby data were collected by means of self-administered questionnaires consisting of open-ended and closed-ended questions (Appendix A). The reason for choosing the use of questionnaire as a data collection tool or instrument was that, the researcher was able to distribute and gather data from a large population in a short space of time. The selected postgraduate students were asked to complete the questionnaires on their own and those who needed clarity were given a chance to ask questions. At times, the researcher was able to ask for permission from the lecturers or the trainers to collect data at the end of lessons and training sessions.

Other reasons for choosing this type of data collection tool or instrument is that questionnaires can be sent to many people at the same time, which may save time and energy for the researcher (Maree, 2016). Leedy and Ormrod (2015) maintains that the advantage of the questionnaire is that if the respondents are far from the researcher, they can respond to questions with the assurance that their responses will be anonymous thus they may be more truthful than they would be in a personal interview. The researcher used a self-administered questionnaire with structured questions. The questionnaire consisted of mainly the closed-ended questions, as well as few open-ended questions to allow the respondents to express themselves on

some of the questions. The questionnaire consisted of 18 questions. Each section had multiple answers and the respondents indicated their answers with a mark (X) in the appropriate blocks provided next to the possible response.

3.5.5. Development of a questionnaire

The questionnaire used for collecting data in this study consisted of five sections based on the research objectives.

Section A of the questionnaire was entitled the biographical information. This section consisted of four questions on age, gender, level of study and number of years in postgraduate study. This section gave the researcher an insight into biographical information of the respondents. Biographical information about the respondents is important because it can serve as a variable that may influence them on their usage of RMS tools.

Section B referred to as awareness of reference management software consisted of three questions focusing on how the respondents became aware of the RMS and mentioning the RMS, they are familiar with. The awareness section allowed the researcher to explore the awareness of RMS.

Section C was entitled usage of RMS and focused on the RMS that was used and the period the respondents have been using these RMS.

Section D was labelled purpose of using RMS. This section comprised of a table where the respondents could tick all the reasons that led them choosing certain RMS. It also explored the reasons for using the chosen RMS and the features they normally utilise from the chosen RMS.

Section E referred to as attitudes towards using RMS that investigated the perceptions of the respondents about using the RMS.

The use of the Likert scale was also employed to measure the attitudes of the respondents towards the RMS. According to Maree (2016) Likert scaling can be used when a researcher wants to measure a certain construct. The Likert scale is a method through which respondents are requested to indicate their degree of agreement or disagreement with a given statement. It is used to measure either positive or negative response to a statement. Respondents can be able to answer Likert scale formulated questions easily. A 4-point Likert scale was used in the study with the statements; strongly agree, agree, strongly disagree or disagree, to measure the perceptions and attitudes of the respondents.

3.6. POPULATION AND SAMPLING

According to Brynard, Hanekom and Brynard (2014) population refers to a group of people who has the specific characteristics. A target population is a group of people about whom the researcher wants to draw conclusion from because the researcher cannot study the whole population. The sample is then selected among the population to be studied (Babbie, 2016). In large populations, it is usually not possible to study the entire population; hence the need to draw a sample from the population. The results obtained from the sample can then be generalised to represent the entire population.

3.6.1 Population

The population of this study consisted of the postgraduate students from Faculty of Humanities at the UL. The researchers' focus was on the postgraduate students in the Honours, Master's and Doctoral levels. The reason for selecting this as population of the study was that, it was going to be difficult to study 1 060 postgraduate students. According to the UL registration statistics as of 2018, a total of 1 060 students registered for postgraduate degrees in Honours, Master's and Doctoral in the Faculty of Humanities. The researcher decided to use sampling method because it was not possible to study the whole population of 1 060 students as it was overwhelming, therefore sampling was necessary.

Table 3.1: Number of postgraduate students per school per level of study

School	Honours	Masters	Doctoral	Total
Education	178	131	46	355
Languages & Communication Studies	136	175	12	323
Social Sciences	121	179	82	382
Total	435	485	140	1060

3.6.2 Sampling

Sampling is the process of selecting a few individuals from a bigger group of participants in a particular study. Sampling the population to participate in a study serves as the basis for estimating or predicting the prevalence of the unknown piece of information, situation or outcome regarding the bigger group (Kumar, 2014). With Sampling researchers are allowed to study a practical number of cases from the large group of people to derive findings that are relevant to the whole population In this study, sampling was necessary because the researcher was not able to reach every postgraduate student in the Faculty of Humanities, which might be costly and time consuming. Kumar (2014) defines sampling as the process of drawing a few individuals who act as the representatives of a larger population, thereby allowing effective description of the population. The advantage of selecting a sample from the total population is that it saves time as well as financial and human resources.

3.6.3. Types of sampling methods

Literature review maintains that there are two major sampling techniques, which are probability and non-probability sampling.

3.6.3.1 Probability sampling methods

Probability sampling methods are based on the principle of randomness while the non-probability is not. In Probability sampling, elements of a population are selected randomly. Thus, every element of the population has an equal chance to be included in the study. With non-probability sampling, people are included in a sample because they are available and willing to participate in the study (Wagner, Kawulich & Garner,

2012). The researcher selects individuals from the population to serve as representatives of that population.

Probability samples can be drawn randomly from a wider population. They are very useful if the researcher wishes to be able to make generalisation and representativeness of wider populations. The advantage of probability sample has less risk of biasness than non-probability sampling by contrast. Simple random, systematic, stratified and cluster sampling are considered as techniques of probability sampling. All these methods have a measure of randomness built to them and therefore they have a degree of generalisation.

3.6.3.2 Non Probability sampling

Non-probability sampling is used when the probability of including each element of a population is unknown or cannot be individually identified. Leedy & Ormrod (2015) states that, in non-probability sampling, the researcher cannot predict the guarantee that every element of the population will be represented in the sample. Therefore, some of the members of the population will have little or no chance of being included in the study. The advantage of non-probability sampling is seen where lack of resources, time and money and difficulty in finding the respondents is a challenge.

3.6.4. Choice of sampling method

Quota sampling method was adopted in the current study. The researcher adopted this sampling method because of the unavailability of the list of Postgraduate students with their names and contact details. The researcher was able to get only postgraduate enrolment statistics for the Faculty of Humanities. Therefore, the population was categorised according to their schools and level of their studies, which made it easy for the researcher to select the sample. Bless, Higson-Smith and Sithole, (2013) sustains that, the advantage of using quota sampling is that, the researcher does not need any sampling frame.

Bless, Higson-Smith and Sithole, (2013) claims that, quota sampling is the type of non-probability method equivalent to stratified sampling even though the sampling method

relies on convenience rather than random selection. With quota sampling the researcher identifies the categories of people that needs to be sampled and the required number (quotas) in these categories. Thus, sampling is then done by means of convenience until the quotas have been reached. The purpose of quota sampling is to draw a sample that has the same proportions of characteristics as the population. With quota sampling, the researcher can easily access the population. The sample is selected from the location, which is convenient to the researcher, and whenever a person with the relevant characteristics from the target population is seen would therefore be asked to take part in the study. Therefore, the researcher continues to study respondents that are available until the required number is reached. However, the researcher made sure that the respondents comply with the criteria before they qualify to be included in the sample.

The researcher further used a non-proportional quota sampling. Maree (2016) argues that in non-proportional quota sampling, the researcher first has to identify categories of people that need to be in a sample and the required number in these categories. Thus sampling is conveniently done until a particular ideal number of units in subpopulations have been reached.

3.6.5. Sample Size

A sample is a subgroup of the target population that the researcher plans to study for generalising the findings about the target population. The researcher can select a sample of individuals who are representative of the entire population (Creswell & Creswell, 2018). In quantitative research, it is important to select a sample that will best approximate the characteristics of the population for which conclusions will be made. Quantitative research usually requires researchers to draw a representative sample, which shares the characteristics of a larger population (Maree, 2016). The responses to the research should therefore be very closely related to what the responses would have been if the entire population were involved. As quantitative research involves a large population, it is almost not possible to study the whole population as in the case of this study, where population of 1 060 students was

considered. Therefore, it was necessary for the researcher to select a sample from the whole population.

Table 3.1 shows the number of postgraduate students in each school at the time of collecting data. A sample size of 320 was required for the study, which was calculated based on N=1 060 (total population) of all students, i.e., Doctoral, Masters and Honours, at a sampling error of 5%.

Table 3.2: Sample size per department and level of studies

School	Honours		Master's		Doctoral	
	Population	Sample Size	Population	Sample Size	Population	Sample Size
Education	178	54	131	40	46	14
Languages & Communication Studies	136	41	175	52	12	4
Social Sciences	121	37	179	54	82	25
Totals	435	131	485	146	140	43

The sample size for postgraduate students was calculated using Yamane formula (Yamane, 1967). The Yamane sample calculation is a way to determine the sample size for study. It is the ideal method to use when the researcher only knows about the size of the underlying population, the researcher is sampling from. The advantage of Yamane formula is its power of accuracy in generalisation (Yamane, 1967).

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

Where

n= denotes the sample size

N= denotes the population sizes of students

e= denotes the sampling error (5%).

The sample size was distributed proportionally to the size of the population: 131 Honours, 146 Master's and 43 Doctoral, as shown in Table 3.2 of which the sum is equals to three-hundred and twenty (320) respondents. The sample size of 320

respondents was arrived at. This entails that the target population for this study was 320 respondents.

3.6.6. Data collection process

The respondents were conveniently selected during the time of data collection. Most of the respondents were found in the Library postgraduate electronic laboratory room; a place wherein most of postgraduate students gather to do their research work. Some of the students were given the self-administered questionnaires when they were attending library user education or instruction programmes. The researcher also visited the postgraduate students, especially the honours students, whilst they were attending classes, whereby, a slot was requested from some lecturers to administer questionnaires. Questionnaires were also given to some of the Lecturers found in the university premises who were registered as doctoral students during time of data collection. The postgraduate students who visited the library for information during the time of data collection were also requested to complete the questionnaire.

Though there was a reasonable participation, the researcher faced some challenges such as respondents not returning the questionnaires and some of the students were not interested in participation in the study. The researcher made sure that the respondents do not complete the questionnaire twice by emphasising it to them and making sure that they sign the consent form.

3.7 QUALITY CRITERIA

Different criteria are being used to evaluate the quality of data collected to be analysed, which are, reliability, validity and objectivity (Bless, Higson-Smith & Sithole, 2013). Establishing the trustworthiness of the study depends on the research orientation and design that is being adopted. This study adopts quantitative research orientation and, as such, trustworthiness was ensured by conducting a pilot study to establish the reliability and validity of the instrument being used, namely, the questionnaire.

According to Bless, Higson-Smith & Sithole (2013) reliability is the extent to which the observable measures that represent a theoretical concept are accurate and stable over repeated observation. It is concerned with the stability of research findings using the same research instrument more than once. Bless, Higson-Smith & Sithole (2013) further argue that validity is concerned with how accurately the observable measures represent the concept in question, or even whether in fact they represent things. Validity simply refers to the extent to which the findings of the research can be generalised to a wider context. Therefore, the researcher ensured that the research instrument was used more than once to test the validity and the findings of the piloted questionnaire were found to be similar (Pickard, 2013).

A pilot study was conducted using a group of postgraduate students who did not form part of the main study, primarily to ensure the clarity of the questions and to draw some comments about content validity. Consequently, the researcher was able to identify potential challenges, such as the phrasing of some of the questions not clear to respondents, some questions were duplicated; and errors in numbering. The questionnaire was subsequently refined and thus some of the questions had to be restructured to avoid ambiguity. Babbie (2016) maintain that the result of questionnaire pre-testing can assist to avoid errors and identify ambiguous questions. Furthermore, the researcher conducted an in-depth literature review and developed a questionnaire from the existing ones that have been used in previous and similar studies. According to Case (2012), one of the methods for ensuring validity and reliability of the instrument used is by using measures or instruments that were developed and used successfully by other researchers.

3.8 ETHICAL CONSIDERATIONS

Bless, Higson-Smith and Sithole (2013:28) proclaim that, “research ethics helps to prevent research abuses and assist researchers in understanding their responsibilities as ethical scholars. It places an emphasis on the compassionate and sensitive treatment of respondents who may be placed at varying degrees of risk by research procedures. Researchers are directed by moral standards to conduct and report

research without the intention to harm the respondents. Therefore, the need to practice ethical standards when conducing and reporting research in order to determine the validity of their research is very important. It is also important that the researcher make sure that the research plan goes through the ethical evaluation before the respondents are contacted.

3.8.1 Informed consent

Research respondents have the right to know what the research is about, if there are risks, benefits of participation and how it will affect them. Respondents has the right to decline to participate or to discontinue participation at any time during the process (Bless, Smith & Sithole, 2013). In this study, ethical issues were observed and adhered to. The researcher informed the participants about the purpose of the study at the beginning of the questionnaire in a form of a covering letter (Appendix A). The participants were requested to sign a consent form (Appendix B) before answering the questionnaire and the participants were assured that the consent form will not be made public and will only be accessed by the researcher and the supervisor. The researcher also assured the participants that their involvement in the study is voluntary, the information they provide would be used anonymously and their personal details will not be disclosed and that they could withdraw from the study any time they wish.

3.8.2 Anonymity and confidentiality

Anonymity applies to all aspects of the research process from the first time that the researcher makes contact with potential research participants to the publication of reports and findings. The principles of anonymity are linked with confidentiality. Respondents' data should never be associated immediately with his or her name or any other identifier. "Confidentiality is an ethical requirement in most research. Information provided by participants particularly sensitive and personal information should be protected and not made available to anyone other than the researchers" (Bless, Higson-Smith & Sithole, 2013: 32). The respondents were assured that the information obtained for the study would be treated as confidential and be used for academic purposes only. Confidentiality and respect were observed by informing the respondents not to provide their names to the researcher and on the questionnaire.

3.8.3. Ethical clearance certificate

Permission to conduct the research was requested from the Turfloop Ethics Research Committee (TREC) after the proposal was accepted at the faculty level. The proposal was submitted to the TREC for application of ethical clearance certificate. The ethical clearance certificate is attached as Appendix E. The researcher also requested permission form the university management to obtain access to postgraduate students' statistics (Appendix C).

3.9. SUMMARY

Chapter Three focused on the description of research methodology that was adopted in conducting the study. The quantitative research orientation and survey research design were adopted by the study. Self-administered questionnaires were used to collect data from the respondents. Data collection methods, procedures and the instruments used for data collection were also discussed in this chapter. The chapter also covered the population and the sampling methods used by the researcher for data collection. A pilot study was also conducted to ensure the validity and reliability of the instrument used, followed by a discussion of ethical issues that were taken into consideration before, during and after the study was conducted.

CHAPTER FOUR
DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1. INTRODUCTION

In the previous chapter, the research methodology used for the purpose of collecting data in this study was discussed. It was mentioned that, out of the three research approaches known in research, that is, quantitative, qualitative and mixed-methods methodologies, this study adopted the quantitative research orientation through the administration of a questionnaire containing closed-ended and some open-ended questions. The reasons behind the adoption of quantitative approach and the use of a questionnaire as the data collection instrument were also advanced in the previous chapter. In this chapter, the findings of the study solicited from the quantitative research and the questionnaire are presented, analysed and interpreted.

Therefore, this chapter is arranged in accordance with the research objectives as set out in Chapter One. This means that the current chapter is divided into the following headings, namely: (a) demographic information of the respondents; (b) respondents' awareness of RMS; (c) respondents' usage of RMS and their reasons behind such usage; (d) the purpose for which the participants use RMS when writing academic papers and (e) the respondents' attitudes and perceptions regarding the use of RMS.

In this chapter, the findings were presented in the form of tables and bar graphs. Subsequently, such findings are descriptively analysed and interpreted compared to the previous findings related to the current topic. However, before looking into the

findings of the study in accordance with the stated objectives, it is important to look into the number of respondents who responded to the questionnaire.

4.2 RESPONSE RATE

A survey research design was conducted through the structured questionnaire distributed personally among three hundred and twenty (320) respondents. Out of 320, two hundred and forty-four (244) questionnaires, that is, 76 percent were returned, whilst (24%) were not returned. This entails that a total number of 244 (76%) students in the Faculty of Humanities participated in this study. This gives the overall response rate of 76%. The findings are illustrated on table 4.1.

	Sample Size	No. of Respondents	Response Rate (%)
Hon	131	82	62
Master	146	128	87
PhD	43	34	79
Total	**320**	**244**	**76**

Table 4.1: Response rate

In most survey research, the overall response rate is the one to provide guidance to the decision regarding the representativeness of the population. If the high response rate is achieved, then there is less chance of significant non-response bias than if a low rate is achieved. A considerable number of researchers agree with the notion that a response rate of 50% is usually considered adequate for analysis and reporting (Babbie & Mouton, 2010). Further that a response rate of 60% is a good response rate, whereas the response rate of 70% is more acceptable for the research to solicit findings and draw conclusions (Rubin & Babbie, 2014; and Morton, Bandara, Robinson & Carre, 2012). Therefore, the overall response rate for the current study is very good as it has reached more than 70%.

4.3 DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

Data relating to gender and level of study have been sought from the respondents are presented in Figures 4.1, 4.2 and 4.3.

4.3.1. Gender Distribution

When requested to indicate their gender, Figure 4.1 presents the findings.

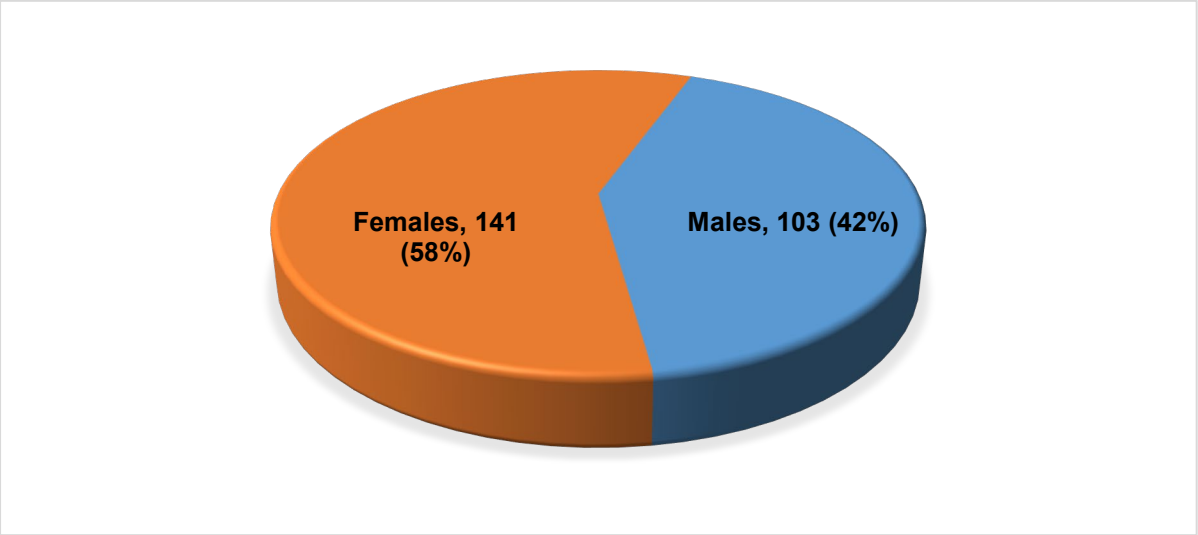

Figure 4.1: Gender distribution

Most of the respondents, that is, 141 (58%) respondents were females, while only 103 (42%) respondents were males. The figure shows that female respondents are more than the male respondents. This is also confirmed by the Public Higher Education Vital Statistics (2016:6) that females are more in number than males in higher education institutions in South Africa between 2011 and 2016.

4.3.2. Age Distribution

When respondents were asked to indicate their age, the responses were indicated on figure 4.2 as follows:

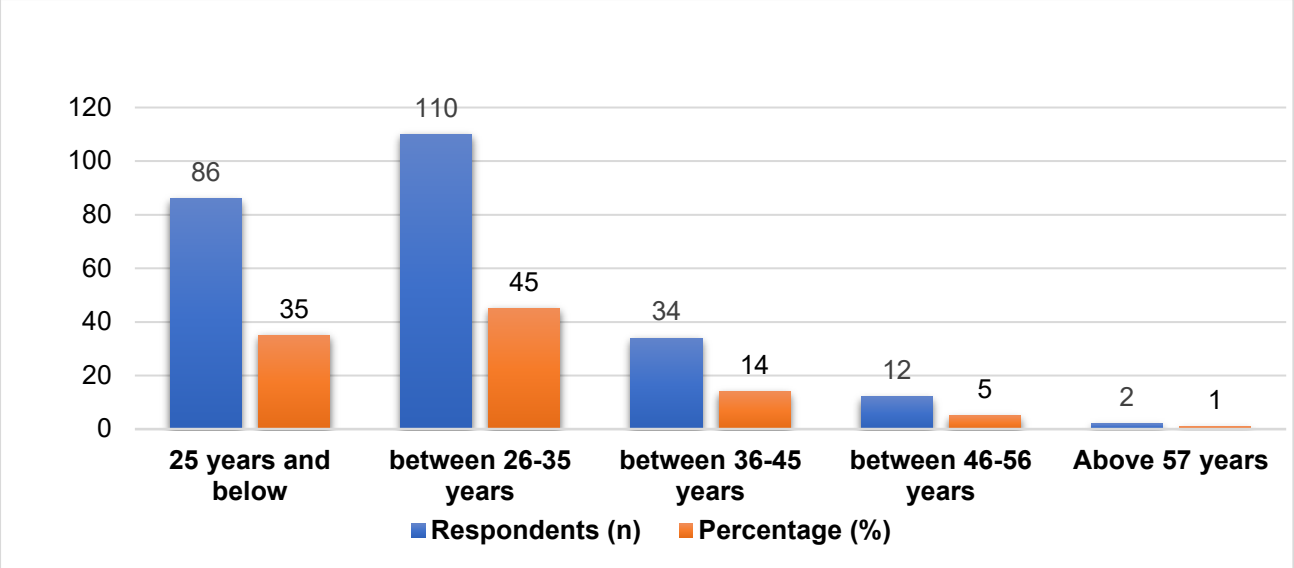

Figure 4.2: Age distribution

The findings show that a greater proportion (at 110, 45%) of the respondents who participated in the study was in the age group between 26-35 years, followed by 86 (35%) of those aged between 25 years and below. The figure also reflects that 34 (14%) respondents between the ages of 36-45 have also participated in the study. There were few 12 (5%) respondents aged between the ages 46-56 years and 2 (1%) were 57 years old and above. The findings show that this research revolves around young adults as most of the respondents are at the ages below 25 to 35 years. This can also be established by the Council on Higher Education (CHE) report that, nowadays people register for postgraduate degrees at a younger age. The Public Higher Education Vital Stats (2016:6) report shows that the high number of enrolments in terms of age is between the ages of 24-35 years.

4.3.3. Level of study

The respondents were asked to indicate their level of study. Figure 4.3 illustrate the findings.

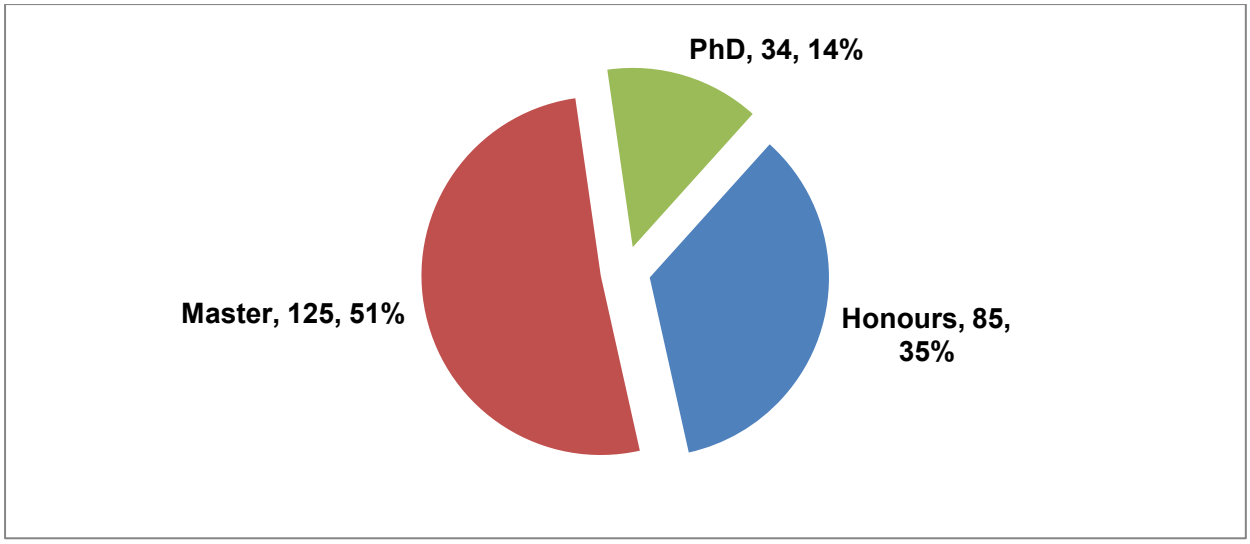

Figure 4.3: Distribution by level of study

Slightly more than half 125 (51%) of the respondents were Master's students, followed by 85 (35%) Honours students, and 34 (14%) Doctoral students. The findings show that most of the students registered for postgraduate studies in the Faculty of Humanities are doing Master's degree, followed by those who enrolled for Honours degree. Few students are registered for PhDs.

Hoffman and Julie (2012) indicate that the number of Master's students' enrolment in South African universities is increasing year in and year out. The fact that Master's and Honours statistics in most universities in South Africa is high, UL included, is because the university graduation numbers are on the rise as indicated in the report released by Statistics South Africa (StatsSA) (Mkhize, 2017). Therefore, due to scarcity of work opportunities, new graduates may opt to enrol for either Honours or Master's programmes upon completion of their degrees.

4.3. 4. Number of years in a postgraduate degree

In this question, the respondents were asked to indicate the number of years in their postgraduate degrees. The findings are presented in Table 4.2.

Table 4.2: Years by levels of study

	N	Level of Study (%)						
		%	Honours	%	Master's	%	PhD	%
First year	132	56	69	84	50	41	13	40
Second year	49	21	3	4	39	32	7	21
Third year	22	9	2	3	15	12	5	15
Fourth year	25	11	6	7	16	13	3	9
Fifth or more years	9	4	2	2	2	2	5	15

Table 4.2 shows that overall, to some extent, more than half (132, 56%) of the respondents were in their first year as postgraduate students. It is indicated in the table that, 69 (84%) Honours students are in their 1st level of study followed by 50 (41%) Master's and 13 (40%) PhD. The table shows that overall Forty-nine (21%) of respondents are in their second year of their postgraduate studies. The table further shows that, 3(4%) are the Honours students followed by 39 (32%) Master's and 7 (21%) PhD. Twenty-two (9%) respondents indicated that they are in their third level of postgraduate studies, whereby a small number of 2 (3%) respondents were Honours, followed by 15 (12%) Masters and 5 (15%) PhD students. It was also indicated in the table that, Twenty-five (11%) of respondents are in the fourth year of study as shown on Table 4.2. The table further shows that 6 (7%) Honours, 16(13%) Masters and 3(9%) PhD students are in their 4th year of study. The table also shows that, few (9, 4%) respondents are in their 5th level or more years of study from which 2(2%) are the Honours students followed by 2(2%) Master and 5 (15%) PhD. This shows that, most of the postgraduate students who took part in the study are in their 1st year of study and are in the Honours and Master's level.

4.4 RESPONDENTS AWARENESS OF RMS

In this question, the respondents were asked if they are aware of RMS.

Figure 4.5 illustrates the findings.

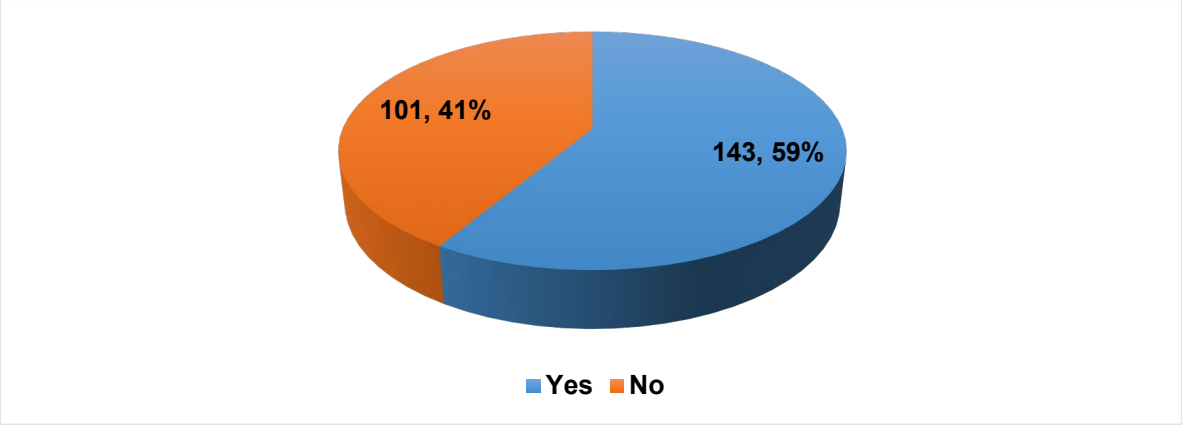

Figure: 4.4 Respondents awareness of RMS

Out of two-hundred and forty-four (244) respondents who responded to this question, more than half 143 (59%) of the respondents were aware of the existence of RMS on the UL library website, whereas 101 (41%) of the respondents stated that, they were not aware. Almost similar findings were reported in the two studies conducted by Francese (2012; 2013) where the researcher investigated faculty awareness and the usage of RMS in two universities, viz., Tallin University in Estonia and Torino University in Italy. Francese (2012) observed a general awareness among the scholars from Tallin University, but the rate of non-RMS users was very low as (24%) declared not using the software. The second study conducted at Torino University also showed that awareness was high, but with low usage.

Similarly, Ram and Anbu (2014) surveyed LIS professional in India to assess their awareness and use of RMS. They found that 50% of the respondents was aware of RMS, whereas 45% used them. Furthermore, another similar finding, that of Bugyei, Kavi, Obeng-Koranteng (2019), found that the overwhelming majority 80% of the researchers in the Council for Scientific and Industrial Research (CSIR), Ghana, are aware and has knowledge of RMS, but their adoption and usage of these tools was low.

4.4.1. Familiarity with RMS

In order to establish the popular RMS package, the respondents were first asked about the RMS that they were familiar with. RMS were tabulated so that the respondents should tick the ones that they were familiar with. Table 4.2 depicts the findings:

Table 4.3 Familiarity with RMS

RMS Program	Frequency	%
RefWorks	125	75
Endnote	39	38
Mendeley	38	37
Zotero	21	24
CiteULike	10	13
RefME	8	6

Table 4.2 indicates that most of the respondents are familiar with RefWorks 125 (75%), EndNote with 39 (38%) and Mendeley with 38 (37%) respondents. This shows that RefWorks is the most popular RMS that the respondents are familiar with; probably because it is the RMS tool that UL have subscribed to. The software that appears to be less popular from the respondents are Zotero 21(24%), CiteULike 10 (13%) and RefME 8(6%). Kern and Hensley (2011) and Charan (2018) named “RefWorks, Endnote and Zotero and Mendeley as the most popular citation managers promoted and supported by academic library websites”. Sarrafzadeh and Hazeri (2014) also conducted a similar study where they investigated the familiarity with the usage of RMS by Library and Information Sciences (LIS) faculty in Iran. They found that, approximately 90% of the participants were familiar with RMS and 60% use them. The findings from Sarrafzadeh and Hazeri (2014) study conclude that, even though most scholars are aware of the software, they do not use them. When asked to indicate or give programmes that they were familiar with which were not listed on the questionnaire, the respondents have also mentioned Reference Manager, Wikindix, JabRef, BibMe, and MS Word as the other RMS that they are familiar with in the open-ended question.

4.4.2. Sources of Awareness

The respondents were further requested to indicate how they became aware of the RMS. The findings are indicated in Figure 4.5.

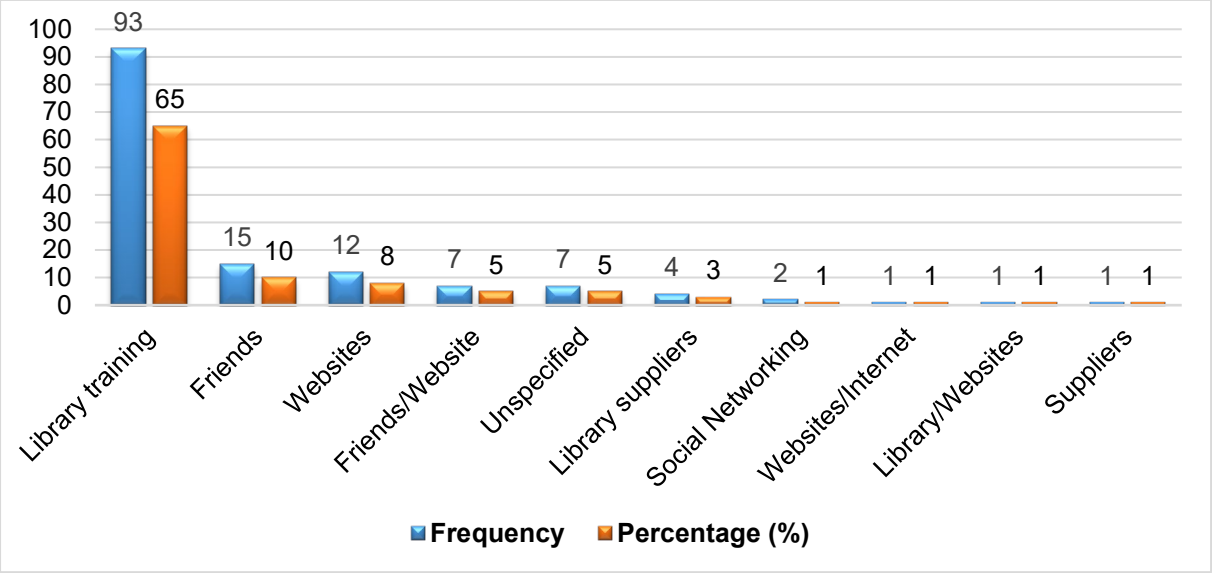

Figure 4.5: Sources of Information about RMS

The findings indicated that most 93 (65%) respondents were aware of the RMS by attending the library training. Therefore, formal library training plays a critical role in making users aware of new services and products available for use at their disposal (Chulukya 2015; Moyane, Dube & Hoskins 2015). In a study by Sarrafzadeh and Hazeri (2015), it was found that LIS faculties in Iran have learned how to use RMS packages through formal education. However, in the current study, there are some respondents who were also made aware of the RMS through friends 15 (10%) and followed by websites with 12 (8%) respondents. This shows that informal channels of communication also play a role in disseminating information to the users about library products and services. On the other hand, the findings also show the importance of library website in dissemination of information to library users (Margam, 2016; Edewor; Okite-Amughoro, Osuchukwu, & Egreajena, 2016).

It was also found that only 7 (5%) respondents mentioned that the became aware of the RMS both through friends and websites. Few 4 (3%) respondents specified their

source of awareness as library or suppliers, while 2(1%) respondents pointed social networking as their source of awareness. Contrary to this study, Ram and Anbu (2014) indicated that 200 (30%) of the respondents' awareness of RMS came through social networking websites. Hundred and fifty-six (24%) respondents mentioned that they became aware through promotional materials such as pamphlets, flyers, and 92 (14%) became aware by attending formal education on RMS whereby they were taught this through LIS programmes; whilst the 88(13%) mentioned awareness through friends, company promotions and colleagues.

4.5. RESPONDENTS' USAGE OF RMS

The use of RMS program is very essential for academic research and writing. RMS programs saves time, increases the researcher's effectiveness in using references and the accuracy of citations.

4.5.1. General usage of RMS

The respondents were asked if ever they have used an RMS before. Fig 4.6 presents the findings:

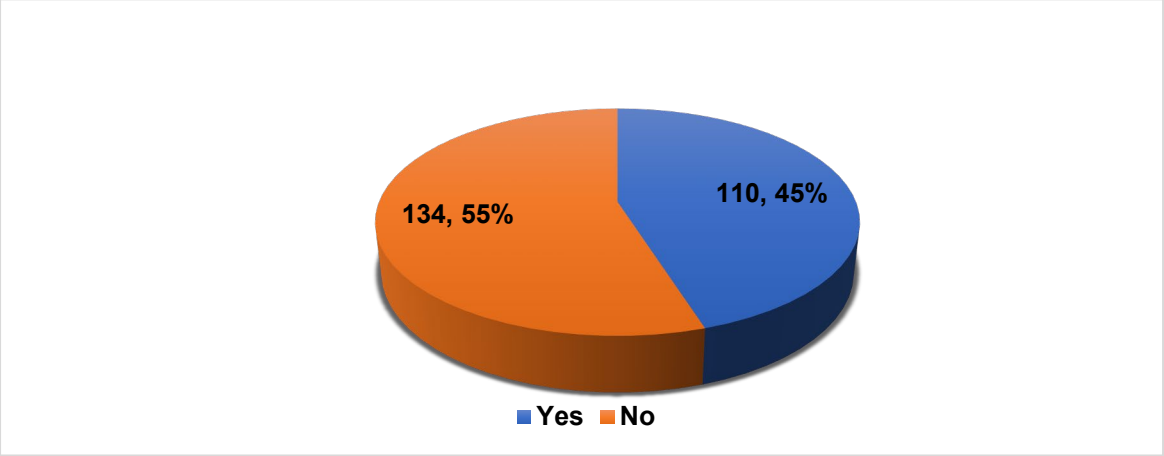

Fig: 4.6 RMS usage

Out of 244 respondents who have participated in the study, 134 (55%) indicated that they have never used RMS, whereas 110 (45%) respondents revealed that they have used the RMS before. Francese (2011) study also witnessed non-usage of RMS by

44%. Seventy-five percent of respondents are fully aware of the RMS but the usage is very low.

4.5.2. RMS used by postgraduate students

The respondents were asked to indicate the RMS they have used Fig 4.7 presents the findings: The question consisted of six RMS programs and multiple responses regarding the usage of the software, which are, namely: RefWorks, Endnote, Mendeley, Zotero, CiteULike and RefME.

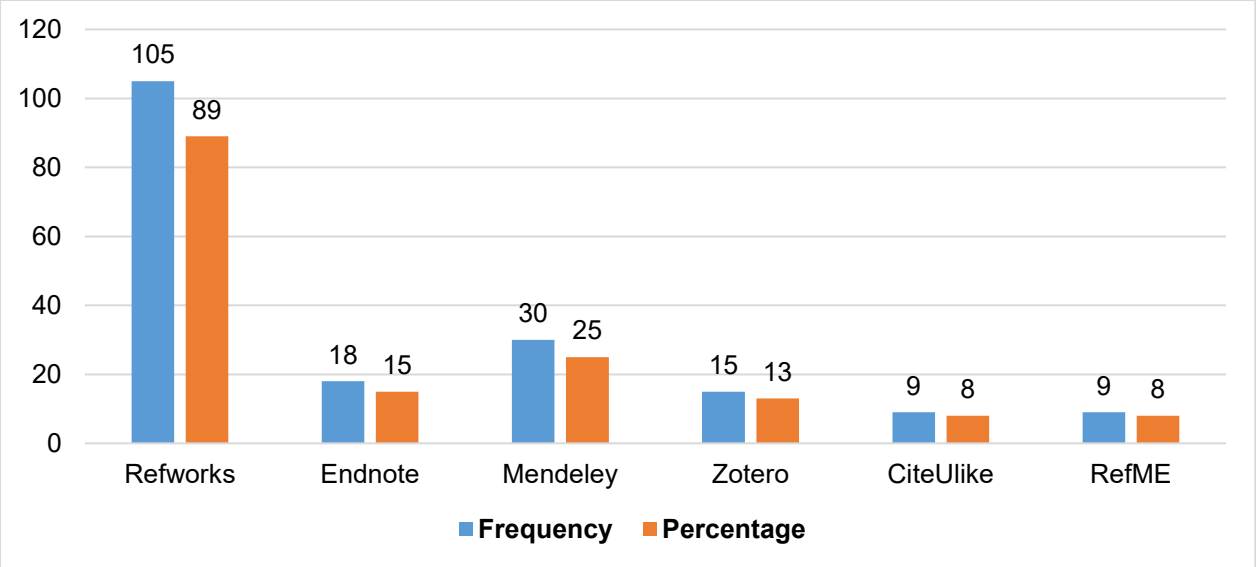

Figure 4.7: RMS used by postgraduate students

It was found that there are two RMS, which are generally used by respondents. Of all the respondents who said they have used RMS before, 105 (89%) of respondents have used RefWorks. Mendeley was the second ever used RMS with 30 (25%) of respondents, followed by Endnote with 18 (15%) and Zotero with 15 (13%) respondents. CiteULike and RefME were the less used RMS with 9 (8%) respondents. The high usage of RefWorks might be credited to the subscription and training offered through the university library. Gilmour and Cobus-Kou (2011) compared four RMS such as Mendeley, CiteULike, Zotero and RefWorks in terms of features offered by the software and the accuracy of bibliographies that they generate, and found that RefWorks generates the most accurate citations, while Mendeley was found to be

reliable in Portable Document Format (PDF) management. RefWorks was again the RMS of choice for more than 98% of authors who used this software (Lorenzetti & Ghali, 2013).

4.5.3. Number of years using RMS

Respondents were asked to indicate the number of years they have been using the RMS. Figure 4.8 indicates the findings:

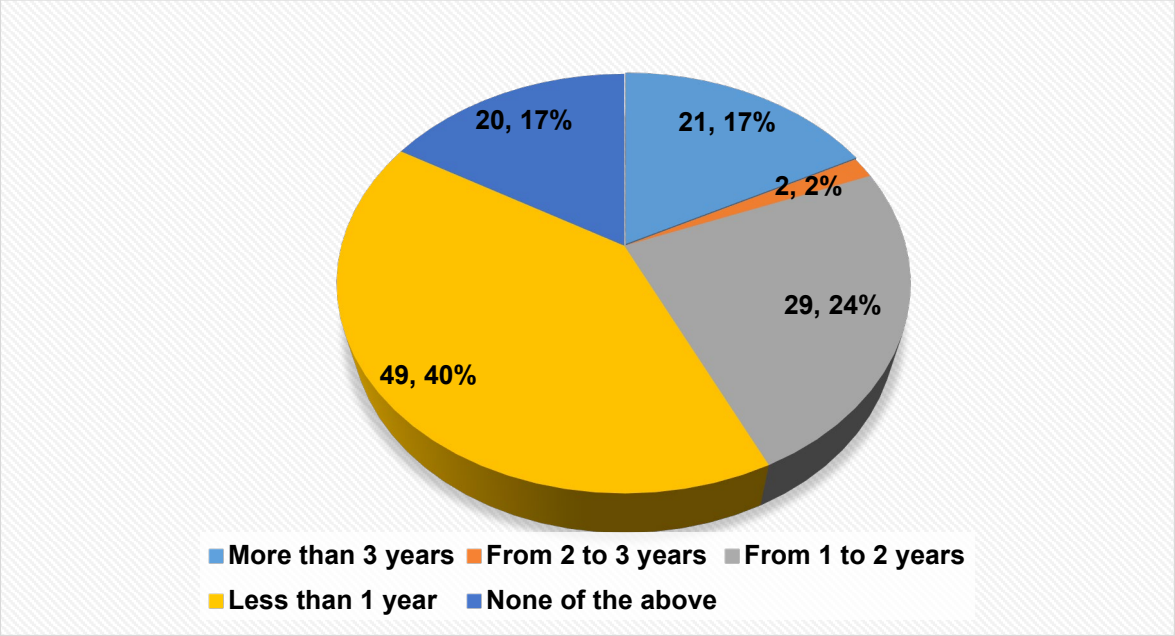

Figure 4.8. Number of years using RMS

It is clearly indicated that nearly half (49, 40%) of the respondents have been using RMS for less than a year, whereas 29 (24%) respondents fall within 1 to 2 years. Twenty-one (17%) respondents stated that they have been using the software for more than 3 years, whilst the other 20 (17%) respondents did not indicate the number of years they have been using the software. Only 2 (2%) respondents showed that their use falls within 2 to 3 years.

4.6. PURPOSES FOR USING RMS

The purpose of using RMS differs from one respondent to another. In order to understand the usage of RMS programs, it is necessary to also understand the

reasons for choosing and using RMS. The respondents use RMS program for various purposes.

4.6.1. Choice of RMS

In this question, the respondents were asked to provide the reason they choose a certain RMS program amongst others. The findings are depicted in figure 4.9.

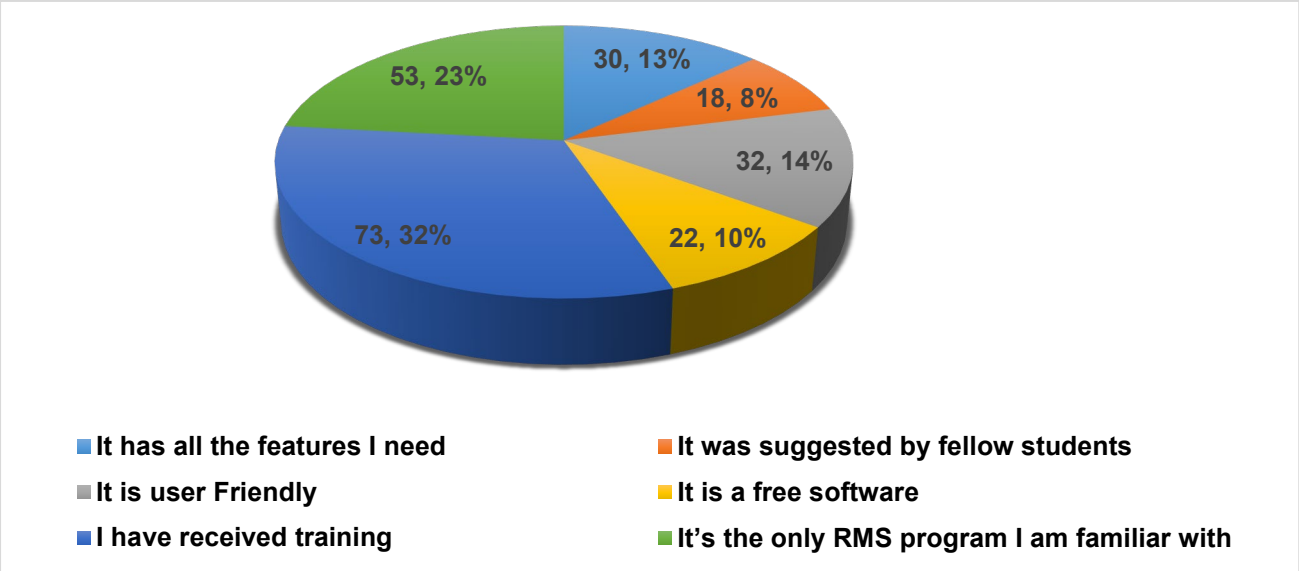

Figure 4.9: Choice of RMS amongst others

According to the findings, most 73 (32%), respondents indicated that they chose to use a certain RMS amongst others because they have received training on their chosen RMS, followed by, 53 (23%) respondents who mentioned that they chose to use the RMS because is the only RMS they are familiar with. Thirty-two (14%) of respondents stated that they use the RMS of their choice because it is user friendly, 30 (13%) respondents indicated that they have all the features they need, whilst the other 22 (10%) respondents specified that they use them because of being a free software, and 18% (8%) chose the software as it was suggested by fellow students.

4.6.2. Reasons for using RMS

Respondents were asked to mention their reasons for choosing an RMS. The findings are depicted in Figure 4.10

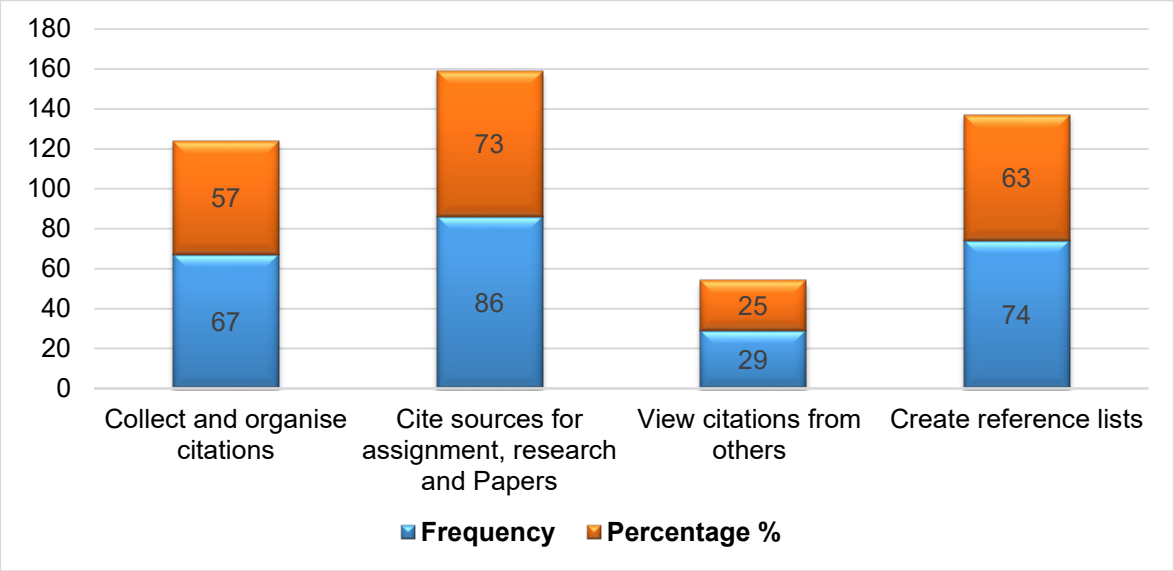

Figure 4.10: Reasons for using RMS

Figure 4.10 illustrates that the majority 86 (73%) of respondents use RMS amongst others to cite sources from assignments, research and articles which is followed by 74 (63%) respondents who indicated that they normally use the RMS of their choice to create reference lists. It is further specified in the figure that, 67 (57%) respondents use RMS to collect and organise citations, whereas a few 29 (25%) respondents indicated that they use their chosen software to view citations from other researchers. These findings can be compared to Emmanuel (2013), who surveyed the postgraduate students and academics at the University of Illinois about the types of RMS and the reason to use them. According to Emanuel's (2013) findings, besides ease of use and inserting references in writing, they identified the most common uses of their chosen software as to create reference lists and organise citations or references.

4.6.3 RMS features used

In this question, the respondents were asked which features of the RMS they normally use, and they were given the chance to choose up to five most important features listed in the questionnaire. Table 4.3 depicts the findings which indicate that 85 (72%) respondents acknowledged creating reference list with their preferred referencing style, followed by 82 (69%) respondents indicating Saving and Organising Citations

for Easy Retrieval. Sixty-eight (58%) indicating Exporting Citations from Subject Databases, 67 (57%) has shown that Cite While You Write as the most important features, they normally use on RMS. Fifty-three (45%) respondents recognised the editing of citations according to their preferred style as the feature they use.

Table 4.4: RMS features used

	Frequency	%
Saving and Organizing Citations for Easy Retrieval	82	(69)
Sharing Citations with Other Students	16	(14)
Exporting Citations from Subject Databases	68	(58)
Searching Databases	34	(29)
Cite While You Write	67	(57)
Creating Reference List with Preferred Referencing Style	85	(72)
Editing of Citations According to Preferred Style	53	(45)

The less used features of RMS are Searching Databases with 34 (29%) respondents, followed by 16 (14%) respondents who indicated that they normally use the RMS for 'Sharing Citations with Other Students'. In the same way, Emmanuel (2013) in his study found that, 84% of respondents were using RMS for the creation of reference lists for publications, whilst 82% respondents indicated that they used the software for storage and organisation of references.

The findings in Table 4.4 are also almost identical to those of Francese (2013) who found that the core features of RMS, managing references and insertion of references were the most frequently used features of RMS with a small number of researchers using the software to share references. Francese (2013) also found that, a few 13% respondents used the software for sharing research with their fellow researchers and none reported using the software for collaborating with other researchers. Additionally, Melles and Unsworth (2015) indicate that respondents were asked to rate the importance of features of RMS programs. It was discovered that, the most 91% important feature identified was Creating Reference Lists.

The study conducted by Speare (2018) also found that the features that were frequently used from RMS included creating reference list for articles, theses,

dissertations and manuscripts. Eighty-one percent of the respondents indicated that they used the software to create folders and organise citations, while 73% respondents used it to add in-text citations to articles, and 59% respondents were saving citations from databases such as EBSCOhost, Google scholar and Web of Science. Speare (2018) further discovered that features such as Sharing Citations with Others and Creating Public or Private Groups for Projects Collaboration were minimally used.

4.7. ATTITUDES TOWARDS RMS

The respondents were asked to indicate their attitude towards RMS. Table 4.5 shows the findings.

Table 4.5 Attitude towards RMS

Statement	**Strongly Agree**		**Agree**		**Disagree**		**Strongly Disagree**	
	Frequency	%	Frequency	%	Frequency	%	Frequency	%
RMS are easy to use	20	19	66	63	15	14	3	3
RMS assist with referencing problems	44	41	60	56	3	3	1	1
Improves referencing	49	46	55	51	3	3	0	0
Minimise citation and referencing errors	38	37	58	56	6	6	2	2
Saves time	52	48	46	43	5	5	5	5
Feeling confident when using RMS	21	20	66	62	17	16	3	3
Choice of referencing style	44	44	47	47	5	5	5	5
Collaboration with other researchers	16	16	34	34	42	42	8	8
Improve in-text referencing	32	30	64	60	8	7	3	3
Creating reference list	67	61	39	36	3	3	0	0
Download or sharing citations	33	32	60	58	7	7	4	4

4.7.1 RMS are easy to use

Table 4.5 shows that the majority 66 (63%) respondents agree that RMS are easy to use, whilst 20 (19%) respondents indicated strongly agree on the ease of use. Similarly, in the study of Sarrafzadeh and Hazeri (2014), 98% respondents indicated that, the most important reason why they choose to use a certain RMS is its “ease of use”. The study by Emanuel (2013) also found that ease of use was the number one response, with 69% of users agreeing to the statement. Furthermore, 15 (14%)

respondents disagreed that RMS are easy to use, which showed a negative attitude towards RMS. Only 3 (3%) respondents strongly disagreed that RMS are easy to use.

4.7.2 RMS assist with referencing problems

A total of 60 (56%) respondents agreed that, RMS assists them with referencing problems. Forty-four (44) (41%) respondents further indicated that they strongly agree while 3 (3%) disagree and that the programs assist with referencing problems, whereas 1 (1%) strongly disagreed.

4.7.3 Improves referencing

Table 4.4. Indicates that 55(51%) respondents agree followed by 49 (46%) respondents who strongly agreed that the software are improving their referencing. Only 3 (3%) respondents disagreed on the statement. Using RMS can lead to the occurrence of less citation error. RMS has helpful functions for researchers such as ensuring that citation information is accurate and therefore allowing researchers to save time when complying to the demanding referencing style.

4.7.4 Minimises citation and referencing errors

More than half (58%) of the respondents agreed that RMS minimise citation and referencing errors, whilst 38 (37%) respondents strongly agreed. Only 6 (6%) respondents disagree that the programs minimise referencing and citation errors.

4.7.5 Saves time

According to Table 4.4, 52 (48%) respondents strongly agreed that RMS saves time, whereas 46 (43%) respondents agreed. The table further shows that only 5 (5%) respondents disagreed and another 5 (5%) strongly disagreed on the statement.

4.7.6 Feeling confident when using RMS

Participants were also asked about their confidence in using RMS. Sixty-six (62%) respondents agreed that they like RMS because they feel confident when using them. Whereas 21 (20%) respondents strongly agreed with the statement. Seventeen (16%)

respondents disagreed, that they feel confident when using RMS, followed by only 3 (3%) respondents who strongly disagreed that they felt confident to use RMS.

4.7.7 Ability to choose referencing style

Table 4.4 further indicates that 47 (47%) respondents agreed and 44 (44%) respondents strongly agreed that they like RMS because they can choose their referencing Style. Only 5 (5%) respondents disagreed.

4.7.8 Collaboration with other researchers

The findings presented in Table 4.4 indicates that most (42 (42%) of the respondents do not collaborate with other researchers and 8 (8%) respondents strongly disagreed, while 34 (34%) respondents agreed that they collaborate with other researchers through RMS. Only 16 (16%) respondents strongly agreed that they collaborate with other researchers with RMS. Like Melles and Unsworth's (2015) study, respondents reported sharing research and networking with other researchers received little attention according to their findings.

4.7.9 Improve in-text referencing

RMS assist researchers to improve in-text referencing. Most 64 (60%) respondents agreed, followed by 32 (30%) respondents who strongly agreed that the software assisted them in improving in-text referencing. Only a few 8 (7%) respondents disagreed while 3 (3%) strongly disagreed with the statement.

4.7.10 Creating reference lists

Table 4.4 shows that most (67, 61%) respondents strongly agreed that RMS helps them to create a reference lists. This shows that creating reference list is the most used feature on RMS as compared to the other features. The table further shows that 39 (36%) respondents also agreed, however only 3 (3%) respondents disagreed with the statement. Similarly, in the studies of in the studies of Melles and Unsworth (2015) and Spears (2018), creating reference lists is the most used features on RMS. Melles and Unsworth (2015) study discovered that, 91% of respondents used the software as they assist them to create reference lists for articles. Eighty-five percent of

respondents in Spears (2018) study indicated that they chose to the RMS because it assisted them to create reference lists for papers, manuscripts and theses and dissertations.

4.7.11 Downloading and storing citations

The findings further depict that 60 (58%) respondents indicated that they agreed followed by 33 (32%) respondents who strongly agree that RMS assist them with downloading and storing citations. Only 7 (7%) and 4 (4%) agreed and strongly disagreed respectively with the statement.

4.8. RESPONDENTS' PERCEPTIONS REGARDING THE USE OF RMS

Of the respondents who answered the questions on the perceptions regarding the use of RMS. Out of 137 respondents, 120 (88%) indicated that they had a positive perceptions and only 17 (12%) respondents had a negative perception towards RMS.

Table 4.6: Respondents' perceptions of RMS

	Frequency	%
Positive (score ≥22)	120	88
Negative (score ≤22)	17	12
Total	137	100

The study also contained a question designed to capture respondents 'perceptions towards recommending RMS to other students. The question was, "*Can you recommend RMS to other students?*" Of the respondents who answered this question (N=125), a large proportion (88, 70%) indicated that they were likely and 33 (26%) very likely to recommend RMS to other students. There were a few (2,2%) respondents who indicated that they are unlikely and (2,2%) very unlikely to recommend RMS to other students.

The respondents were also asked an open-ended question, namely: "Is there any other thing that would like to say about RMS. The following are some of the responses that were given:

"RMS should be introduced to students at the beginning of the year."

"University should train students on RMS as it will make the students life easier when writing assignments and research projects."

"Library should train students on all the available RMS including the free ones as they can be used off-campus."

"Trainings should be organised for Mendeley and Zotero in order to have a greater choice."

"Students should be trained at first year level and trainings should also be given twice in a year."

"RMS are convenient to use but I find it difficult to use at times because I don't know how to use them properly."

"Students should be made aware of RMS earlier in their studies and library should provide compulsory training so that academic work could be easier and of good quality."

4.9 SUMMARY

In this chapter, the findings of the study were presented, analysed and interpreted. The discussion on various findings of the study was carried out in relation to the relevant literature. Demographic information of the respondents was also analysed. The findings indicated that, most (59%) of the respondents are aware of the RMS but the usage is low (45%). It is shown in the findings that, most (65%) of the respondents became familiar with the RMS by attending library training. The study also revealed that the most (89%) popular RMS is RefWorks followed by Mendeley and Endnote. Most (88%) of the respondents showed a positive attitude towards the RMS as they indicated that they are likely to recommend RMS use to other students. The next chapter focuses on the summary of the major findings, conclusions and recommendations.

CHAPTER FIVE
SUMMARY OF THE MAJOR FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

In the previous chapter, the findings of the study were presented, analysed in the form of tables, bar graphs and pie charts and then interpreted descriptively in relation to the studies that were conducted previously on the related topics. This chapter gives the summary of the major findings of the study and provides a general conclusion of the study in accordance with its aim and objectives and the recommendations.

5.2 RE-STATING THE AIM AND OBJECTIVES OF THE STUDY

As shown in chapter one of this study, the purpose (aim and the objectives) of this study are as follows:

5.2.1 Aim and objectives of the study

The aim of the study was to examine the awareness and usage of RMS among postgraduate students in the Faculty of Humanities at the UL. In order to accomplish this aim of goal, the following research objectives were formulated to guide the study:

- To describe the types of RMS available for use in UL library
- To determine awareness of RMS by postgraduate students in the Faculty of Humanities at the UL;
- To measure the extent to which postgraduate students in this faculty use RMS when writing academic papers;
- To identify the purposes for which the postgraduate students use RMS; and
- To determine postgraduate students' perceptions regarding the use of RMS programs.

5.3 MAJOR FINDINGS OF THE STUDY

This section presents the major findings that were derived out of this study in terms of the demographic characteristics of the respondents, their level of awareness towards RMS, as well as their attitudes and the factors that influence their usage of RMS.

5.3.1 Demographics of the respondents

- Most (58%) respondents were female postgraduate students rather than males in as far as gender distribution is concerned.
- The majority (45%) of respondents were in the age group of between 26-35 years followed by those who were in the age range of 25 years and below.
- More than half (51%) of respondents have registered for Master's degree followed by Honours students.
- Only a few (14%) postgraduate students were registered for Doctoral degree.
- More than half (56%) of the respondents were in their first level of study especially the honours students.
- Most (32%) of the respondents use their chosen RMS tools precisely because they have received training
- Majority (73%) of respondents uses the chosen RMS programs, amongst others to cite sources for assignment and research papers
- Most (72%) respondents acknowledged Creating Reference List with Preferred Reference Style as an important feature on RMS.

5.3.2 Awareness and familiarity with RMS

- Most (59%) postgraduate students from the Faculty of Humanities are aware of the existence of RMS.
- Most (65%) of postgraduate students became aware of RMS by attending the library trainings and instruction.
- Majority (75%) of the postgraduate students are familiar with RefWorks.

5.3.3. Usage of RMS

- Most (55 %) of the respondents have never used the RMS before
- Less than half (45%) of the respondents have used the RMS before.
- Majority (89%) of respondents have used RefWorks to write their academic work
- Most (40%) of the respondents have been using RMS programs for less than a year.

5.3.4. Purpose of RMS

- Most (32%) of the respondents use their chosen RMS tools precisely because they have received training
- Majority (73%) of respondents uses the chosen RMS programs, amongst others to cite sources for assignment and research papers
- Most (72%) respondents acknowledged Creating Reference List with Preferred Reference Style as an important feature on RMS

5.3.5. Attitudes and perceptions towards RMS

The study found that:

- Majority (63%) of respondents found RMS easy to use
- (56%) respondents consider that RMS programs minimises citation and referencing errors
- (51%) of the respondents believe that RMS improves referencing
- More than half (58%) respondents believe RMS minimises citation and referencing errors
- Most (48%) of the respondents believes that RMS programs saves time.
- Most (62%) of the respondents feel confident when using RMS
- Most (42%) respondents do not use RMS to collaborate with other researchers
- Majority (62%) of the respondents feel confident when using RMS programs and they are able to choose the referencing style of their choice.

- The majority (64%) of respondents consider that RMS helps them to improve in-text referencing
- The majority (88%) of the respondents who use these products have positive attitude towards them, because they are more likely to recommend to other users to utilize them.

5.4. CONCLUSIONS.

The study has been conducted to establish the awareness and the usage of RMS programs among postgraduate students in the Faculty of Humanities at the University of Limpopo. Postgraduate students are aware of the RMS. However, the usage level of the software is very low. This is in line with what most of the studies across the world discovered. Researchers from different institutions and diverse areas of the world share similar tendencies in their awareness and usage of RMS.

Postgraduate students are largely aware of the existence of the RMS although the actual usage is slightly lower. Generally, the postgraduate students in the Faculty of Humanities are familiar with are RefWorks, Mendeley and Endnote. However, RefWorks is the most popular software that the postgraduate students know and use. The reason RefWorks is very popular is that, the library has a cite license for RefWorks and they have also received training on the software. Looking at the TAM model, which this study is based on, the usage of a particular information technology system depends on the organisational support that one gets from the institution. If organisation support in the form of training is not provided, the intended users of the system are unlikely to use the system optimally. To emphasise on the above statement the majority of Postgraduate students are familiar with RMS because of library training and library websites.

It was evident that most postgraduate students do not use RMS for collaborating with other researchers. This may be attributed to the fact that postgraduate students are novice in terms of collaboration. Perhaps when they become expert researchers, they may use these tools for collaboration purposes. The respondents largely use RMS

tools to cite sources for assignments, research and papers, as well as to create a reference list and to collect and organise citations. This is irrespective of the fact that there are other plenty of functionalities and features that can be used from the RMS tools.

Respondents derived some benefits from the usage of RMS and the most notable ones were creating reference list with the preferred referencing style, saving and organising citations for easy retrieval, exporting citations from Subject Databases and cite while you write. Other features that were indicated by respondents included editing of citations according to the preferred style, searching databases and sharing citation with other students.

The fact that most of the respondents indicated that they are more likely to recommend RMS tools to other users, shows a positive attitude towards the tools.

5.5. RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

- This study recommends that intensive training on RMS tools be conducted, not only by the UL Library, but also by suppliers and vendors; make people or institutions accountable and take responsibility.
- Product suppliers and vendors should be invited regularly by the Library to provide training to Library users; make people or institutions accountable and take responsibility.
- Postgraduate students should also be encouraged by the Librarians and their Supervisors to continuously utilise manuals linked to RMS front pages so that they should not forget what they have been taught;
- The Library should also extend that RMS training to the research supervisors of these students.
- Librarians should also intensify marketing and promotion of RMS.
- The study recommends that the UL library should use the Subject Lib-Guides to market and promote the RMS.

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APPENDIXES
Appendix A: Questionnaire

Questionnaire on the Utilisation of Reference Management Software by Postgraduate students in the Faculty of Humanities at the University of Limpopo

Dear Student

This Questionnaire serves to investigate the usage of Reference Management Software (RMS) by postgraduate students in the Faculty of Humanities at the University of Limpopo. You are therefore requested to fill all the questions asked as openly as possible. You do not have to write your name on the questionnaire for confidentiality. You are also assured that the results of the study will only be used for that purpose.

The findings from this study will assist me in my Master's in information Studies.
Please put a tick or cross (X) inside the box that describes your response.

SECTION A: BIOGRAPHICAL INFORMATION
Please tick (√) or make a cross (X) in the appropriate column

1. Gender

Male	
Female	

2. Age range

25 years and below	
Between 26 – 35 years	
Between 36 – 45 years	
Between 46 – 56 years	
Above 57 years old	

3. Which school are you registered with?
   Education
   Social Sciences
   Languages and Communication

4. What is your level of study?

Honours Degree	
Master's degree	
PhD	

5. Number of years in a postgraduate degree

First year	
Second year	
Third year	
Fourth year	
Fifth year	
More than five years	

SECTION B: AWARENESS OF RMS

6. Are you aware of the existence of Reference Management programs on our library website?

Yes	
No	

7. If no, please skip to question 9

8. If yes, how did you become aware with RMS?

Library training	
Friends	
Websites/ internet	
Suppliers/Company promotion	
Social networking	
Other Please specify)	

9. Which of the following RMS are you familiar with? (Please tick as many as it may apply)

RMS	
RefWorks	

Endnote	
Mendeley	
Zotero	
CiteULike	
RefME	

Any other RMS that you are familiar with but not mentioned above, please specify here:

_____

_____

SECTION C: USAGE OF RMS

10. Have you ever used any RMS?

Yes	
No	

11. Which of the following RMS have you ever used?

	Never	**Seldom**	**Sometimes**	**Always**
RefWorks				
Mendeley				
CiteULike				
Zotero				
EndNote				
RefME				
Other				

12. Indicate the number of years that you have been using your chosen RMS.

More than 3 years	
From 2 to 3 years	
From 1 to 2 years	
Less than 1 year	
None of the above	

SECTION D: PURPOSES FOR USING RMS

13. Why did you choose this RMS among others?

It has all the features that I need	
It was suggested by fellow students	
It is user friendly	
It is a free software	
I have received training	
It's the only RMS I am familiar with	
Other (Please specify below)	

_____
_____
_____

14. For what purpose do you use the chosen RMS? (Choose as many as it may apply).

Collect and organise citations	
Cite sources for assignment, research and Papers	
View citations from others	
Create Reference Lists	
Other (Please specify below)	

_____
_____
_____
_____

15. Which features of RMS do you normally use? Please choose only the first five RMS features that you frequently use.

Saving and Organising Citations for Easy Retrieval	
Sharing Citations with Other Students	
Exporting Citations from Subject Databases	
Searching Databases	
Cite While You Write	
Creating Reference List with Preferred Referencing Style	
Editing of Citations According to Preferred Style	
Other (Please specify below)	

_____
_____
_____

SECTION E: YOUR ATTITUDE TOWARDS RMS

16. What do you like about RMS program?

	Strongly disagree	Disagree	Agree	Strongly agree
RMS are easy to use				
RMS assist with referencing problems				
Improves referencing				
Minimises citation and referencing errors				
Saves Time				
I feel confident when I use RMS				
I am able to choose referencing style				
Collaboration with other researchers				
Helps to improve in-text Referencing				
Helps in creating reference list				
Downloading and storing citations				

17. Can you recommend RMS to other students?

Very unlikely	
Unlikely	
Likely	
Very likely	

18. Is there any other thing that you would like to say about RMS?

_____
_____
_____
_____
_____

Appendix B: Consent Form

UNIVERSITY OF LIMPOPO
ETHICS COMMITTEE

PROJECT TITLE: The Utilisation of Reference Management Software by Postgraduate Students in the Faculty of Humanities at the University of Limpopo

PROJECT LEADER: Ms TMJ Motlhake and Prof S.T. Bopape (Supervisor)

CONSENT FORM

I, _____ hereby voluntarily consent to participate in the following project: (*it is compulsory for the researcher to complete this field before submission to the Ethics Committee*)

I realise that:

1. The study deals with _____ (e.g., effect of certain medication on the human body) (*it is compulsory for the researcher to complete this field before submission to the Ethics Committee*)
2. The procedure or treatment envisaged may hold some risk for me that cannot be foreseen at this stage;
3. The Ethics Committee has approved that individuals may be approached to participate in the study.
4. The experimental protocol, i.e., the extent, aims and methods of the research, has been explained to me;
5. The protocol sets out the risks that can be reasonably expected, as well as possible discomfort for persons participating in the research, an explanation of the anticipated advantages for myself or others that are reasonably expected from the research and alternative procedures that may be to my advantage;
6. I will be informed of any new information that may become available during the research that may influence my willingness to continue my participation;
7. Access to the records that pertain to my participation in the study will be restricted to persons directly involved in the research;
8. Any questions that I may have regarding the research or related matters will be answered by the researchers;
9. If I have any questions about, or problems regarding the study, or experience any undesirable effects, I may contact a member of the research team;
10. Participation in this research is voluntary and I can withdraw my participation at any stage;

11. If any medical problem is identified at any stage during the research, or when I am vetted for participation, such condition will be discussed with me in confidence by a qualified person and/or I will be referred to my doctor;
12. I indemnify the University of Limpopo and all persons involved with the above project from any liability that may arise from my participation in the above project or that may be related to it, for whatever reasons, including negligence on the part of the mentioned persons.

_____ _____

Signature of Researched Person Signature of Witness

_____ _____

Signature of Person that Informed the Researched Person Signature of Parent/Guardian

Signed at _____ this ____ day of _____ 2019

Appendix C: Letter to the Respondents

Dear Respondent

Research Topic: The Utilisation of Reference Management Software (RMS) by Postgraduate Students in the Faculty of Humanities at the University of Limpopo

My name is **Thondo Morotola Johanna Motlhake**. I am conducting a research on the above- mentioned study in the fulfilment of MA Degree in Information Studies. The aim of the study is to investigate awareness and usage of RMS among postgraduate students in the Faculty of Humanities at the University of Limpopo. The study will measure the extent to which postgraduate students use RMS when writing academic papers. Therefore, I am requesting you to be part of this study by completing the questionnaire.

For your participation in the study, please note the following:

- The information that you will provide will be treated as confidential and your name should not be written anywhere in the questionnaire.
- The results of the study will only be used for research purpose.

Thanking you in anticipation for your co-operation

Yours Sincerely

TMJ Motlhake (9634161)

_____

Appendix D: Letter to University Management

P O Box 2282
Mahwelereng
0626
Tel: 0152682497
Thondo.motlhake@ul.ac.za

08 November 2018

The University Registrar
University of Limpopo
P/Bag x 1106
Sovenga
0727

Dear Sir

Re: Request to conduct research at University of Limpopo

I, Thondo Motorola Johanna Motlhake, under the supervision of Prof. ST Bopape, currently enrolled for Master's Degree in the Faculty of Humanities at the School of Languages and Communication Studies request permission to conduct research at your institution. The title of the study is Utilisation of Reference Management Tools by postgraduate students at the University of Limpopo.

The aim of this research is to investigate awareness and usage of Reference Management Tools among postgraduate students at the University of Limpopo. The research will be undertaken from students available on campus during different events such as trainings, classes, etc. The data to be collected by means of questionnaires. The identity of the students who voluntarily consent to participate will be treated with complete confidentiality.

The participation and cooperation of your institution is important so that the results of the research are accurately portrayed. Your approval to conduct this study will be greatly appreciated. I would be happy to answer any questions or concerns that you may have about this study.

Yours Faithfully,

TMJ Motlhake
Research Student
9634161

Prof ST Bopape
Supervisor

Appendix E: Ethical Clearance Certificate

University of Limpopo
Department of Research Administration and Development
Private Bag X1106, Sovenga, 0727, South Africa
Tel: (015) 268 3935, Fax: (015) 268 2306, Email: anastasia.ngobe@ul.ac.za

TURFLOOP RESEARCH ETHICS COMMITTEE

ETHICS CLEARANCE CERTIFICATE

MEETING: 06 March 2019

PROJECT NUMBER: TREC/34/2019: PG

PROJECT:

Title:	The utilisation of Reference Management Software programs by postgraduate students in the Faculty of Humanities at the University of Limpopo.
Researcher:	TMJ Motlhake
Supervisor:	Dr S Bopape
Co-Supervisor/s:	N/A
School:	Language and Communication Studies
Degree:	Master of Information Studies

PROF P MASOKO
CHAIRPERSON: TURFLOOP RESEARCH ETHICS COMMITTEE

The Turfloop Research Ethics Committee (TREC) is registered with the National Health Research Ethics Council, Registration Number: **REC-0310111-031**

Note:

i) **This Ethics Clearance Certificate will be valid for one (1) year, as from the abovementioned date. Application for annual renewal (or annual review) need to be received by TREC one month before lapse of this period.**

ii) **Should any departure be contemplated from the research procedure as approved, the researcher(s) must re-submit the protocol to the committee, together with the Application for Amendment form.**

iii) **PLEASE QUOTE THE PROTOCOL NUMBER IN ALL ENQUIRIES.**

Finding solutions for Africa

Appendix F: Editor's Letter

Mr MM Mohlake
University of Limpopo
Turfloop Campus
Private Bag x 1106
Sovenga
0727

15 June 2020

To Whom It May Concern

EDITING CONFIRMATION: Ms TMJ MOTLHAKE's DISSERTATION

This letter is meant to acknowledge that I, MM Mohlake, as a professional editor, have meticulously edited the main dissertation of Ms Thondo Morotola Johanna Motlhake (Student # 9634161) entitled "The Utilisation of Reference Management Software Programs by Postgraduate Students in the Faculty of Humanities at the University of Limpopo".

Thus I confirm that the readability of the work in question is of a high standard.

For any enquiries please contact me.

Regards

Mosimaneotsile M Mohlake
Freelance Professional Editor
072 1944 452
<mosimaneotsile.mohlake@ul.ac.za>