The Knowledge and Use of Reference Management Systems (RMS): A Survey Among University Students in Ghana

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Abstract

Purpose: The purpose of this study was to investigate the knowledge and use of Reference Management Software (RMS) among university students pursuing various degrees in health and related programmes in Ghana. It further sought to find out respondents' motives for choosing a particular RMS and also the various sources of support for users of such programmes.

Design/methodology/approach: This descriptive cross-sectional study used a questionnaire to solicit for data from third year, fourth year and postgraduate students of the University of Health Allied Sciences, Ho, Ghana, on their knowledge and use of RMS in their academic and scientific writings.

Findings: This study found out that more males use RMS than females. It was also confirmed that Mendeley was the most known and used RMS and that training organised by the library contributed to the increased knowledge and utilisation of the RMS. Lack of knowledge about RMS and institutions not requiring students to use RMS contributed to their non-usage. The primary use of RMS among the respondents was for insertion of citations and generation of bibliographies for their assignments and theses.

Originality/value: In Ghana, institutes of higher learning have witnessed the use of RMS among their constituents. However, apart from a recent study conducted among researchers at CSIR, no scientific study had been conducted among students on the purpose of this study. Thus, the findings of this study will inform librarians and policymakers to appreciate what their students require as far as the management of their bibliographic needs is concerned.

Keywords: Reference Management Systems, Citation Management Software, Bibliographic Management Systems, Mendeley, EndNote, Zotero, Microsoft Word, Ghana.

Introduction

A primary convention in scholarly communication requires that writers should desist from the habit of arrogating ideas, words, and graphics adopted from other published or unpublished sources to themselves. According to Gasparyan et al. (2015), authors should always endeavour to credit each adopted statement, known scientific facts and methods by citing related publications, giving preference to sources visible in reputed databases, libraries, or archiving platforms. Properly selected references do not only give credibility to scholarly publications and also credit previous contributions of others working in the same field (Foote, 2007), but they also enable "hypothesis formulation and sourcing of the original works in this rapidly developing digital age of publishing" (Barroga, 2014; Sarrafzadeh & Hazeri, 2014). Furthermore, references serve as building bricks for multidisciplinary science communication (Gasparyan et al., 2015). More so, appropriate referencing and citation help to preserve the integrity of authors as it helps authors to avoid committing basic ethical issues like plagiarism (Parabhoi et al., 2018).

The management of references has always been a daunting task in reporting research results and producing academic writings. Whereas some studies have reported that manually managing references is time-consuming (Fenner et al., 2014; Melles & Unsworth, 2015; Sarrafzadeh & Hazeri, 2014), and usually results in the production of error-ridden references (Hernandez et al., 2008; Smith & Baker, 2007), others have asserted that manually formatting references means that authors will always have to readjust their manuscripts to the various referencing styles as and when it is demanded (Nilashi et al., 2019; Sarrafzadeh & Hazeri, 2014). Producing manuscripts that have faulty reference lists or citations have also led to the rejection of research findings submitted for publications (Khadilkar, 2018; Sullivan, 2015).

The challenges enumerated above notwithstanding, the advent of technology, has however, led to the introduction of computer-aided applications that help authors in the management of large sets of references, and the production of citations and references in a consistent style (Hensley, 2011; Lorenzetti & Ghali, 2013; Sarrafzadeh & Hazeri, 2014). These helpful tools, called Reference Management Systems (RMS) (Chen et al., 2018), have also been referred to as Citation Management Software, Reference Management Software, Bibliographic Management Software, and Computer-Generated Citation Software (Fenner et al., 2014). These tools enable authors to create a library of references by recording the details of each reference in a structured format with the long-term focus of generating references, citations or bibliographies in a range of referencing styles (Glassman & Sorensen, 2012; Osmani et al., 2016).

As indicated earlier, the scholarly communication system has seen a tremendous transformation over the years, especially, with the introduction of the digital age, Web 2.0 applications, and open scholarship initiatives (Chen et al., 2018; Gilmour & Cobus-Kuo, 2011). Currently, there exists numerous and different reference management software with the popular ones being EndNote, RefWorks, CiteULike, Mendeley, ProCite, Zotero among others (Lorenzetti & Ghali, 2013; Sarrafzadeh & Khaleghi, 2017). These programmes, whose primary aim is to help with the capturing, organisation, and elimination of duplicate records from electronic database searching, vary in terms of cost, overall functionality, and networking capabilities (Lorenzetti & Ghali, 2013). In terms of cost, products such as RefWorks, Papers, and EndNote are licensed or sold outright, while others (Zotero and Mendeley) are open-source applications with little or no cost to the user (Sarrafzadeh & Hazeri, 2014; Sarrafzadeh & Khaleghi, 2017). Also, some of the RMS have Web 2.0 capabilities to enhance the sharing of citations (Sarrafzadeh & Hazeri, 2014), some provide either web-based platform, desktop-based platform or both media (Chen et al., 2018; Sarrafzadeh & Khaleghi, 2017).

The knowledge, adoption and ultimate use of these referencing tools in most academic institutions, have largely been the influence of the libraries in these institutions. According to Childress (2011); Lonergan (2017); Osmani et al. (2016); Sarrafzadeh and Khaleghi (2017), academic libraries are renowned for their role in introducing their users to reference management tools. These libraries do not just introduce their users to these applications, but also teach them to exploit their benefits (Sarrafzadeh & Khaleghi, 2017). Academic libraries have always taken the lead in the subscription or licensing of software that enhances the research productivity of their patrons. Ram and Anbu (2014) have averred that one major role libraries play is the purchasing of usage rights of research resources, including RMS for their users. Also, libraries pride themselves with the training of researchers and scholars in using RMS to organise, export and import various data formats from a variety of bibliographic database sources (Emanuel, 2013; Lonergan, 2017;

Melles & Unsworth, 2015). Librarians normally use their library orientation sessions, information literacy classes and other training and workshop periods to instil ethical writing skills in their users.

Whereas the literature and evidence of the knowledge and utilisation of reference management systems abound in the western world, there is a dearth of recorded knowledge on this practice in Ghana. Even though most libraries in Ghana introduce their patrons to these reference management systems, the available literature does not commensurate with this. A search through the literature reveals that, currently, it is only (Bugyei, Kavi, & Obeng-Koranteng, 2019) whose study on "assessing the awareness and usage of Reference Management Software (RMS) among researchers of the Council for Scientific and Industrial Research (CSIR) Ghana" is closer to the objectives of this extant study. Their study revealed that even though most of the scientists are aware of RMS, only a few were using these tools. To help bridge the gap in the literature, and also help understand the concept of reference management practices among health students in Ghana, this study sought to explore and appreciate the awareness of RMS, the motivation for using RMS and the sources of help to users of RMS.

Methods

This study utilised the descriptive cross-sectional research design to investigate students' knowledge and awareness of RMS, their motivations for using RMS and the various sources of help for users of RMS. This study further used questionnaires as the sole data collection instrument to gather data from the respondents, students who were pursuing various programmes in health and related sciences at the University of Health and Allied Sciences, Ho. The questionnaires were administered among regular undergraduate students (who were in their third and final years) and postgraduate students. These categories of students were purposively selected because, most of them, at the time of the study, were engaged in various forms of scientific write-ups (proposal writings, thesis/dissertations). Moreover, per the curriculum of the University of Health and Allied Sciences, students at these levels of studies are expected to understand academic writing or skills development on the ethical use of information. Equally, the various levels were purposively selected to help ensure that the right information was obtained. Individual respondents who were ready and willing to answer the questionnaires were conveniently selected. A sample size of 368 was obtained from a population of about 8946 students of the university, with a confidence level and confidence interval of 95% and 5% respectively. In all, a total of 326(88.59%) out of the 368 distributed questionnaires were deemed fit for analysis. The data were collected during the first semester of the 2022/2023 academic year. The data were analysed with the use of Microsoft Excel 2016 and GraphPad Prism 6. Predominantly, the data were descriptively analysed. Where possible, all continuous data were presented as means with their standard deviations, while categorical data were presented as frequencies and percentages. Furthermore, the continuous data were compared using unpaired t-test, while the categorical data were compared with chi-square tests or Fisher exact tests where appropriate.

Results

This section of the study narrates the results from the data gathered from the respondents.

Demographic characteristics of the respondents

As indicated earlier, this study saw the participation of 326 respondents. In all, the study established that 164(50.31%) of the respondents were using various forms of RMS for the collection and organisation of their bibliographic activities. Also, it was recorded that there was a significant difference ($p=0.0004$) between the male and female respondents as far as their usage or otherwise of RMS was concerned. Correspondingly, the study revealed that there was a significant difference ($p< 0.0001$) between training on RMS and respondents use or otherwise of RMS. As far as respondents' use or otherwise of RMS is concerned, this study observed a significant difference ($p=0.0092$) between respondents who had their RMS training organised by the university library and those whose training was part of a course requirement. Refer to Table 1 for the demographic characteristics of respondents.

Impact of training on knowledge and usage of RMS

One important discovery of this study was the impact of RMS training on respondents' knowledge and use of RMS tools. It was realised that significantly ($p< 0.0001$), training on RMS influenced respondents' knowledge, choice and use of these referencing applications. It was observed that even though the majority of the respondents 97(65.10%) were not aware of RMS before having trainings on RMS, the study

recorded an increase in respondents' knowledge after the respondents had gone through a training programme on RMS. Consistently, the study established a significant difference ($p< 0.0001$) between training and the type of RMS used by respondents. It was found out that whereas the majority of the respondents 115(77.18%) were not using any RMS tool for their bibliographic needs before undergoing any training on RMS, it came to light that after the training, majority 93(62.42%) of them started using Mendeley for the management of their referencing needs. (See Table 2 for detailed information).

Table 1: Demographic characteristics of respondents stratified by the usage of RMS

Parameter	Users N=164	Non-users N=162	*P-value*
Age	24.95±4.21	25.61±5.07	0.1979
Gender			
Male	97(59.15)	64(39.51)	0.0004
Female	67(40.85)	98(60.49)	
Category of students			
Allied health sciences	34(20.73)	25(15.43)	
Basic sciences	7(4.27)	7(4.32)	
Medicine	14(8.54)	11(6.79)	0.3284
Nursing and midwifery	69(42.07)	88(54.32)	
Pharmacy	5(3.05)	6(3.71)	
Public health	35(21.34)	25(15.43)	
Level of study			
Level 300	74(45.12)	80(49.38)	
Level 400	81(49.39)	71(43.83)	0.5829
Postgraduate	9(5.49)	11(6.79)	
Training session on RMS	115(70.12)	34(20.99)	< 0.0001
Organisers of RMS training session			
The University Library	95(82.61)	20(58.82)	0.0092
A course requirement	20(17.39)	14(41.18)	

RMS stands for Reference Management Systems. Continuous data are presented as means ± standard deviation of the mean, with categorical data presented as a figure with the percentage in parenthesis. Continuous data were compared using unpaired t-test and categorical data were compared with chi-square tests or Fisher exact tests where appropriate. P is significant at <0.05

Respondents' reasons for not using RMS

As it is the case for many rational individuals, people who do not use reference management systems have various reasons for their actions. This study reported that even though there was no significant difference between gender and respondents' reasons assigned for not using RMS, it was evident that "lack of knowledge about RMS" and "institutions not requiring their students to use RMS" dominated respondents' reasons for not using RMS. As far as efforts by the non-RMS users and the management of their referencing needs are concerned, findings from the study revealed that majority of the respondents typed their bibliographic information in Microsoft Word. (See Table 3 for details).

Table 2: Knowledge and usage of RMS among respondents who had RMS training

Parameter	Before training N=149	After training N=149	*P-value*
Knowledge of RMS			
None	97(65.10)	0(0.00)	
EndNote	13(8.72)	25(16.78)	
Mendeley	17(11.41)	96(64.43)	
MWR tool	8(5.37)	9(6.04)	< 0.0001
EndNote & Mendeley	7(4.70)	11(7.38)	
Mendeley & MWR tool	2(1.34)	3(2.01)	
EndNote, Mendeley & MWR tool	5(3.36)	5(3.36)	
Use of RMS			
None	115(77.18)	34(22.81)	
EndNote	12(8.05)	8(5.37)	< 0.0001
Mendeley	18(12.08)	93(62.42)	
MWR tool	4(2.69)	14(9.40)	

RMS stands for Reference Management Systems, and MWR stands for Microsoft Word Referencing.
Data are presented as a figure with the percentage in parenthesis. Data were compared with chi-square tests.
P is significant at <0.05

Table 3: Non-RMS users' reasons for non-usage and methods of reference management

Parameter	Male N=64	Females N=98	*P-value*
Reasons for not using RSM			
No knowledge	25(39.06)	38(38.78)	
Not a requirement	25(39.06)	48(48.98)	0.3122
Difficult to use	11(17.19)	8(8.16)	
Expensive to acquire	3(4.69)	4(4.08)	
Reference management without RMS			
I do nothing about it	13(20.31)	12(12.24)	
I type them in MSW	42(65.63)	64(65.31)	0.2169
I write them in a book	9(14.06)	22(22.45)	

RMS stands for Reference Management Systems, and MSW stands for Microsoft Word. Data are presented as a figure with the percentage in parenthesis. Data were compared with chi-square tests. P is significant at <0.05

RMS preferred by respondents

The findings of the study revealed that Mendeley, EndNote and the use of the Microsoft Word Referencing tool were the popular RMS tools that respondents used. It was also established that there was a significant difference (p=0.0003) between gender and the various RMS tools used by the respondents with the majority of the male population 82(67.77%) using Mendeley to manage their citation needs. Equally, this study recorded a significant difference (p< 0.0001) between the category of respondents and the types of RMS tools used by the respondents. It is worth noting that, Mendeley 48(39.67%) and Microsoft Word Referencing tool 17(70.83%) were highly used by the respondents who were studying nursing and midwifery whiles majority of respondents who were pursuing a course in allied health sciences used EndNote 14(73.68%). Kindly refer to Table 4 for

details.

Table 4: Respondents' preference for RMS

Parameter	Mendeley N=121	EndNote N=19	MWR tool N=24	*P-value*
Gender				
Male	82(67.77)	9(47.37)	6(25.00)	0.0003
Female	39(32.23)	10(52.63)	18(75.00)	
Level of study				
Level 300	58(47.93)	9(47.37)	7(29.17)	
Level 400	55(45.45)	9(47.37)	17(70.83)	0.2135
Postgraduate	8(6.61)	1(5.26)	0(0.00)	
Category of respondents				
Allied health sciences	19(15.70)	14(73.68)	1(4.17)	
Basic sciences	7(5.79)	0(0.00)	0(0.00)	
Medicine	11(9.09)	0(0.00)	3(12.50)	< 0.0001
Nursing and midwifery	48(39.67)	4(21.05)	17(70.83)	
Pharmacy	4(3.31)	1(5.26)	0(0.00)	
Public health	32(26.45)	0(0.00)	3(12.50)	

RMS stands for Reference Management Systems and MSW stands for Microsoft Word. Data are presented as a figure with the percentage in parenthesis. Data were compared with chi-square tests.

P is significant at <0.05

Respondents' motivation for RMS preference

The study further sought to ascertain from respondents their motivation for choosing to use a particular referencing tool. To this end, it was clear that a recommendation from a lecturer or supervisor was the major deciding factor for the respondents in choosing a particular RMS. Interestingly, the survey revealed that whereas majority 36(29.75%) of Mendeley users tend to depend on library training and library guides on RMS, most of the EndNote users 7(36.84%) and MWR users 10(41.67%) resorted to their colleagues for support in using their respective tools. See Table 5.

Table 5: Respondents' motivation for RMS preference

Parameter	Mendeley N=121	EndNote N=19	MWR tool N=24	*P-value*
Deciding factors				
A friend recommended it	25(20.66)	3(15.79)	2(8.33)	
Integrates easily with my word processor	11(9.09)	3(15.79)	2(8.33)	0.9161
Ease of use	29(23.97)	5(26.32)	7(29.17)	
Recommendation by lecturer/supervisor	41(33.88)	6(31.58)	9(37.50)	
Availability of help/support	15(12.40)	2(10.53)	4(16.67)	

Available support				
Librarian/lecturer/supervisor	33(27.27)	6(31.58)	6(25.00)	
Colleagues	28(23.14)	7(36.84)	10(41.67)	0.1246
Library training/guide on RMS	36(29.75)	2(10.53)	3(12.50)	
The software's website	11(9.09)	2(10.53)	5(20.83)	
YouTube	13(10.74)	2(10.53)	0(0.00)	

RMS stands for Reference Management Systems and MSW stands for Microsoft Word. Data are presented as a figure with the percentage in parenthesis. Data were compared with chi-square tests. P is significant at <0.05

Functionalities of the RMS

Further to find out the characteristics of RMS users and their perceptions on RMS, this study also sought to find out how the respondents viewed the different functionalities of the various referencing tools. Congruently, it was discovered that there was a significant difference between the level of study and RMS functionalities (with level 300, 400 and postgraduate students presenting with p values of $p< 0.0001$, $p< 0.0001$ and $p=0.0018$ respectively). Importantly, it was also established that "creating a reference list or bibliography" and "inserting citations into a thesis" were the most perceived vital functions of RMS among the various levels of studies of the respondents. Table 6 details the functions of RMS as rated by respondents.

Table 6: Functions of RMS as rated by respondents

Parameters	**Level 300** **N=74**		**Level 400** **N=81**		**Postgraduates** **N=9**	
	Important	**Not important**	**Important**	**Not important**	**Important**	**Not important**
Storing and organising PDFs	57(77.03)	17(22.97)	66(81.48)	15(18.52)	7(77.78)	2(22.22)
Saving and organising citations	58(78.38)	16(21.62)	77(95.06)	4(4.94)	9(100.00)	0(0.00)
Creating a reference list	67(90.54)	7(9.46)	78(96.30)	3(3.70)	8(88.89)	1(11.11)
Inserting a citation into a thesis, assignments or manuscripts	63(85.14)	11(14.86)	77(95.06)	4(4.94)	8(88.89)	1(11.11)
Creating groups	38(51.35)	36(48.65)	31(38.27)	50(61.73)	7(77.78)	2(22.22)
Annotating and tagging PDFs	33(44.59)	41(55.41)	40(49.38)	41(50.62)	6(66.67)	3(33.33)
Sharing research	39(52.70)	35(47.30)	38(46.91)	43(53.09)	5(55.56)	4(44.44)
Searching databases or library catalogues	44(59.46)	30(40.54)	53(65.43)	28(34.57)	3(33.33)	6(66.67)
Networking with other researchers/students	40(54.05)	34(45.95)	43(53.09)	38(46.91)	1(11.11)	8(88.89)
Storing and managing research data	45(60.81)	29(39.19)	48(59.26)	33(40.74)	5(55.56)	4(44.44)
Publishing bibliographies and/or reading lists	36(48.65)	38(51.35)	43(53.09)	38(46.91)	7(77.78)	2(22.22)
P values	**< 0.0001**		**< 0.0001**		**0.0018**	

RMS stands for Reference Management Systems. Data are presented as a figure with the percentage in parenthesis. Data were compared with chi-square tests. P is significant at <0.05

Discussion

This section discusses the significant findings of the study based on existing literature and the objectives of the study.

Gender and RMS usage

The findings of this study indicated that the gender of respondents is a key determinant of their use of RMS. In tandem with the findings of a study by Chen et al. (2018), this study also realised that most female respondents had not, compared to the male respondents, adopted RMS in managing their references and citations. The unequal access to technology to males and females may be a reason why the males seem to be more users of RMS. For instance, in their appraisal of technology usage by males and females, Peterman, Behrman and Quisumbing (2014) established that males and females are comparably expected to adopt technology if they are evenly exposed to such technologies. Contrary, the findings of this study, does not agree with the findings of (Mazman & Usluel, 2011) who established that most women are likely to adopt social media tools (including RMS) for academic work than males. A possible explanation for the findings of (Mazman & Usluel, 2011) may be as a result of the focus of their study which primarily centred on social media usage.

Impact of training on knowledge and usage of RMS

Yusuf et al. (2004) have defined training in ICT as the process of providing individuals with the logic and overall concepts of technology. As indicated in the findings of this study, another significant outcome worth discussing is the positive relationship between training on RMS and their subsequent impact on respondents' adoption and usage. Most often, training abates individuals' anxiety and stress about the use of a technology (Lee et al., 2010) and this in effect boosts their confidence in using such a technology. Earlier, a study by Rajan and Baral (2015) averred that among other things, training, has a positive influence on technology usage and this concurs with the finding of this study. Also, this study revealed that most users of RMS were those who had trainings that were organised by the university library. This finding is appreciated in the fact that since the advent of (RMS), librarians have paid keen attention to its prospects and have constantly been communicating this potential to the academic community (Melles & Unsworth, 2015).

Respondents' reasons for not using RMS

As indicated under the result section, two major issues, "lack of knowledge of RMS" and "lack of institutional direction/requirements on RMS usage" were attributed for the non-usage of RMS among some of the respondents. Corroborating the findings of Ram and Anbu (2014), this study observed that the lack of knowledge/awareness had been a major contributing factor for the non-usage of technology. The lack of knowledge might have been influenced by the other factor of institutions having no clear policy on the use of RMS. Most people are not willing to explore until they are compelled. As such, if academic institutions will not make it a requirement for students and faculty to use RMS, it is highly predictable that such individuals will not make any effort in knowing about them. This study further inquired from such respondents who do not use RMS about how they manage their references. To this end, it came to light that, they used Microsoft Word to record the bibliographic details of materials they use in their scientific write-ups. It is important to indicate that the use of Microsoft here is not the same as RMS integration with Microsoft Word (through the use of plugins) nor is it same as using the "citations & bibliography" group under the "references" tab in Microsoft Word. Here, the respondents directly/manually typed the bibliographic records of the used materials in a Microsoft Word document and manually used it in their writings. This result from this study confirms the findings of (Salem & Fehrmann, 2013) who observed that most of the respondents to their study were manually typing out each citation and organising them with a word processor.

RMS preferred by respondents

On the type of RMS that respondents use often, the study revealed that Mendeley was popular among the students. Earlier studies on RMS have recorded low knowledge and usage of Mendeley (Emanuel, 2013; Francese, 2013; Hicks & Sinkinson, 2015; Melles & Unsworth, 2015). However, a study by Bugyei et al. (2019) on the awareness and use of RMS among researchers in Ghana confirmed that Mendeley is the most popular and widely used RMS. The disparity in the findings may be as a result of the geographical settings of these studies. Whereas in the developed world where most of these studies took place, there is the availability of institutional subscriptions to most of these utility software to assist researchers and students, in most African institutions, these are limited or not existing (Tijssen & Kraemer-Mbula, 2018). As a result,

the availability of free and open-source applications like Mendeley will resonate among students and researchers.

Respondents' motivation for RMS preference

Previous studies have outlined various reasons why individuals adopt a particular RMS. These reasons may be technical (Zaugg et al., 2011), ideological (Francese, 2013), or institutional and personal (Childress, 2011; Fourie & Bakker, 2013). The findings of this study were more of institutional and personal as most of the respondents viewed "a recommendation from lecturers/supervisors" as the major deciding factor. Even though the findings of (Melles & Unsworth, 2015) could be categorised under institutional and personal, it was different from that of this study. Melles and Unsworth (2015) observed that the two main deciding factors that respondents used in adopting RMS were "the adopted RMS being the only known system to them" and "the adopted RMS is their university supported system". The main reason why the respondents in this study might have resorted to recommendations from lecturers/supervisors is the lack of policy on the use of systems in the setting of this study. The institution does not have any policy in place to direct the choice of software particularly for scholarly write-ups.

Existing support to RMS users

In tandem with existing literature, this study revealed that most users of RMS run to the library for help in managing their citation software. Equally, most academic libraries provide bibliographic management services to their users (McMinn, 2011; Rempel & Mellinger, 2015; Salem & Fehrmann, 2013). As corroborated by Childress (2011), librarians are required to be endowed with a range of knowledge set needed to sustain citation management at all levels. Thus, the findings of this study will serve as a reminder to librarians especially those in academic settings that the provision of bibliographic management support is a well-sought service that should be delivered with excellence.

Functionalities of the RMS

Finally, this study, established that the "creation of reference lists or bibliographies" and the "insertion of citations" into scientific write-ups were the most perceived vital functions of RMS among the various levels of studies of the respondents. This result is similar to Bugyei et al. (2019) and Melles and Unsworth (2015) who also found from their studies that creating a reference list and its related function of inserting citations into thesis and assignment were the common functions of RMS that are popular more among users. Possibly, these respondents have not exploited the other functionalities of the various RMS they use except the few ones their lecturer/supervisors introduced to them. Also, it is possible that the various training on RMS that the respondents attended focused on these functions as they are the most basic and needed skills in ethically writing a scientific paper.

Conclusion

This study sought to find out the knowledge and level of use of Reference Management Software (RMS) among university students in Ghana. It also sought to find out the motivations of respondents for choosing a particular software and the various sources of support for using such software. Generally, the study found out that the use of RMS is gender skewed towards males. Also, it has been confirmed through this study that among the available RMS, Mendeley was the most known and used and that training, particularly those organised by the library was the reason for the increased knowledge and utilisation of the system. It was also gathered that people do not use RMS because they either lack the knowledge about them or that their institutions do not require them to use them. As a result, such people tend to manually type their bibliographic information in Microsoft Word. Ultimately, this study has established that most users primarily use RMS to insert citations and generate bibliographies for their assignments and theses. Evidence from this study suggests that academic libraries need to organise more training on RMS, giving more enrolment opportunities to females. Also, as could be seen from the study, to help overcome the challenge of underutilising the functions of RMS, librarians need to expand the scope of their teachings to expose users to more useful functions. University management should also give a distinct policy direction as far as the use of software for research is concerned as the benefits of using RMS for academic purposes cannot be underestimated.

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