# Attitude to PIM Behaviour of Research Scholars at the University of Kerala

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## Abstract

*This paper aims to understand the researchers' attitude towards personal information management (PIM) in University of Kerala, India. A structured questionnaire was designed for the data collection on the basis of objectives of the study. The questionnaire consists of both optional type questions and statements in five point Likert Scale. The study attempts to identify various factors such as faculty, age, gender and qualification of the research scholars in University of Kerala. Majority of the research scholars are from Faculty of Oriental Studies. Respondents in the age group of 26-30 are higher than younger aged researchers. Majority of the researchers have PG as higher qualification. Laptop' and 'USB' are the highly used PIM tools by the researchers. The study shows that, research scholars use PIM tools for managing their personal information. Findings of the study show that majority of the respondents are able to manage their personal digital information and most of the time use it 'update outdated personal information'. Study reveals that respondents possess skill in managing personal information. Majority of the research scholars agree that they know more about managing their personal information and apply it on research work.*

***Keywords:*** *Personal Information Management; University of Kerala; Research Scholars; PIM Tools; Attitude; Skills.*

## 1. Introduction

Information is at the heart of research. Every stage of the research cycle involves discovering, accessing, generating, manipulating, interpreting or presenting information, in order to advance knowledge. It is essential to use some techniques and tools to organize and keep this information in the right place to be retrieved later. Therefore they use various methods and tools such as personal information management (PIM) techniques to access and keep new and up to date information to improve their knowledge and research performance.

PIM is not a new concept and every individual handles a substantial amount of information for undertaking personal responsibilities and performing diverse tasks and activities. Personal Information Management (PIM) is an activity in which an individual stores personal information items to retrieve them later. PIM is performed in a physical environment (e.g., an office), with mobile devices (e.g., mobile phones and PDAs), and by using personal computers. The information items used in personal computers include documents, e-mail, Web Favorites, tasks, and contacts (Bergman, Beyth-Marom, & Nachmias, 2008).

The University of Kerala is the pioneer university in the state reaccredited by NAAC with A' grade, and winning the first Chancellor's Award for the best university in the state in 2015. The university consists of 42 teaching departments, including the School of Distance Education. All these departments conduct postgraduate, M. Phil, Ph. D.

and teaching activities. The research activities in the departments are started under university in the same year of establishment. The research programs in various disciplines are undertaken by centers of teaching and research departments recognized by the University (University of Kerala, 2016).

In this study attempt has been made to examine the level of attitude of personal information management among research scholars of various departments and University Library at University of Kerala..

## 2. Personal Information Management

The concept 'Personal Information Management' (PIM) was first used in the 1980s in the midst of general excitement over the potential of the personal computer to greatly enhance the human ability to process and manage information. The 1980s also witnessed the advent of so called PIM tools, with the basic support for the management of appointments, to- do-list and contact information (Jones & Teevan, 2007).

According to Jones and Teevan, (2007) PIM is both the practice and study of the activities people perform to acquire, organize, maintain, retrieve, use and control the distribution of information items such as documents (paper based and digital) Web pages, and e mail messages for everyday use to complete tasks (work-related and not) and to fulfill a person's various roles (as parent, employee, friend, member of a community, etc.).It is divided into several activities such as finding, keeping, organizing, maintaining, and managing information flow, measuring and evaluating and making sense. A wide range of tools and systems have been developed to facilitate personal information activities. For example personal digital assistants (PDAs) usually provide many PIM features such as organizer, calendar, to-do list, task management, notes, etc (Jones, 2008).

## 3. Review of Related Literature

Divya and Sudhier (2016) aims to understand the attitude and skills of Personal Information Management (PIM) among the full time research scholars of the Faculty of Applied Sciences in the University of Kerala. A structured questionnaire was designed for the data collection on the basis of objectives of the study. Out of the 59 respondents, 69.60% females and 30.40% male scholars are using their laptops for managing personal information. Majority of the respondents agreed that they know more about managing their personal information and apply it on research work and it helps to present papers. The study revealed that 49.15% research scholars agreed that PIM helps them to present papers and motivates research work. The findings of the study indicate that the respondents find difficulties in updating. Analysis also showed that most of the research scholars have above average skills on information searching and maintenance. The paper highlights the attitude of research scholars towards PIM.

Onuoha (2016) investigated attitude to plagiarism and the PIM behaviour of undergraduates in the Department of Information Resources Management, Babcock University. The descriptive research approach was used for the study. Questionnaire was used for data collection and the population was made up of 214 students. Stratified sampling technique was employed for sample selection. Data was analysed using percentage count, Pearson's Product-Moment Correlation and One-way ANOVA. Findings revealed that respondents have a positive attitude towards plagiarism. The most popular form of managing information was found to be the creation and tagging of related files in folders while the least used methods were the use of Cloud (e.g. Dropbox) and social bookmarking sites. A significant relationship was found to exist between attitude to plagiarism and personal information management behaviour. The study concluded that education is necessary for curbing the menace of plagiarism in higher institutions and therefore, recommended that faculty should keep educating students' on issues pertaining to plagiarism while students also endeavour to utilise Cloud and bookmarking applications as these would improve their management of personal information.

Kearns, Frey, Tomer and Alman (2014) suggested that personal information management is a serious challenge for many computer users. Online facilities are especially challenged because of the large number of electronic files necessitated by teaching online. Those who have experience in this environment may offer valuable insights regarding information management challenges and practices. Faculty who teach online courses as part of the WISE (Web-based Information Science Education) Consortium responded to a survey that questioned the ways they manage e-mail, computer desktops, web-based information, and learning management systems. The authors concluded that 'filter failure' rather than information overload is the key issue in information management. The study concluded with a list of recommendations for faculty to manage their personal information.

The purpose of the research by Amouzande et al. (2013) studied the effective factors on PIM and knows the strength and weakness in PIM of postgraduate students at Alzahra University. PIM of the postgraduate students has been studied under the factors of 'attitude, knowledge and skill.' The research results represented that among the effective factors on PIM, the attitude average is 3.95, knowledge's average is 3.29, and the skills set have the average of 3.17. Result indicated that the situation of PIM of postgraduate students at Alzahra University is at the up to the average level.

Abdolahi et al. (2012) tried to investigate the knowledge of Iranian faculty members and PhD candidates of Tehran University of Medical Sciences about PIM in order to present an instructional model to improve PIM skills. Results show that participants had little knowledge about how to manage their personal information. They also suggested an instructional model based on learning theories to educate and improve participants' knowledge and skills in PIM. Zhou, Mohammed and Zhang (2012) stated that managing personal information such as to-dos and contacts has become our daily routines, consuming more time than needed. Existing PIM tools require extensive involvement of human users. This becomes a problem in using mobile devices due to their physical constraints. To address the limitations of traditional PIM tools, they proposed a model of mobile PIM agent (PIMA) that aims to improve PIM on mobile devices through natural language interface and application integration. They conducted a user study to evaluate PIMA empirically with prototype systems. The results showed that mobile PIMA improved perceived usefulness, ease-of-use, and efficiency of PIM on mobile devices, which in turn accounted for positive attitude and intention to use the system. The findings of this study provided suggestions for designing and developing PIM applications on mobile devices.

According to Sinn, Syn and Kim (2011), the examination of how the general public uses commercially provided e-mail and blog services to keep their personal documents and history supports exploration into how information professionals can assist the general public in archiving their data, with a view to preservation for future generations and historians. An online survey was conducted to gather data on the current status of e-mail and blog usage, users' perceptions on archiving their contents in e-mail and blogs, and the expectations for and functionalities of archiving tools users find useful or necessary. A total of 345 e-mail and blog users participated in the survey. Participants were found to be well aware of the risk of losing their content in e-mail and blogs, and of the fact that most e-mail and blog services do not provide any method of backing up content. Participants valued the content related to their personal history highly and would have liked to have it preserved; however, they had not located many acceptable tools for preservation. Despite this, information professionals have not been actively engaged in meeting such users' needs.

The purpose of the study conducted by Majid et al. (2010)was to investigate perceptions of university students of internet services for managing their personal information; the type of

information stored by them; how they organize, manage, access and control information distribution; and their concerns regarding privacy and security of their personal information. It was found that 75% of the respondents were using internet services for storing and managing some of their personal information items. Only a small number of the students were using online storage for maintaining information about their appointments, telephone numbers, draft documents, audio and video recordings, and list of things to be done. The paper also suggested certain measures for the improvement of PIM skills of students and the general public.

Boardman (2004) in his study explained to understanding of personal information management behavior and was trying to design a personal information management system through the same methodology. In this research, the researcher studies personal information management tools at three areas: emails, stored internet addresses and stored files on the personal computer. He designed a system as workspace mirror based on data derived from persons' behaviors and at the end he studies the system. At the next step, he observed personal information management behavior of people during a particular period of time. The results represented that classification strategies of people in personal information management are changing over time and it's necessary to make some changes at the previous structures of personal information management models. At the end, some guides and new methodologies are represented for personal information management.

In general PIM has been studied and discussed in many papers. However, there seems to be a little researches that attitude and use of PIM among research scholars in developed countries. No comprehensive studies on PIM in India have been undertaken. This study provides an insight into the PIM attitude among research scholars of university of Kerala.

## 4. Objectives of the Study

The study has been undertaken to:

- identify the personal factors such as age, gender, faculty, and educational qualification of research scholars;
- identify use of PIM tools among research scholars;
- find out different types of personal information store;
- identify methods of managing personal information;
- evaluate the attitude towards PIM by research scholars; and
- assess the skills of research scholars in using PIM.

## 5. Methodology

The study is a questionnaire-based survey of research scholars of the University of Kerala. A structured questionnaire was designed for the data collection on the basis of objectives of the study. Questionnaire consists of both optional type questions and statements in five point Likert scale. The collected data was analyzed using open source statistical package like SPSS (Statistics Package for Social Science) and latest version of MS-Excel for appropriate statistical analysis and description.

The population of the study covers the full time doctoral research scholars of 11 Faculties in the University of Kerala. The Faculties such as homeopathy, ayurveda, dentistry, engineering & technology and medicine do not directly come under the teaching and research departments of the university and hence they are excluded from the study. Out of the 1185 full time research scholars in the university, the investigator could distribute 736 questionnaires (62.10%).Out of which 649 (88.17%) fully filled questionnaires were returned. Statistical technique such as arithmetic mean was used wherever needed.

## 6. ANALYSIS

### 6.1 Faculty wise Distribution

Faculty wise distribution of researchers shows

that most of the research scholars are from Faculty of oriental studies i. e.173 (26.7%) followed by 121(16.8%) from social science faculty. Science faculty has16.8% researchers compared with other faculties. Faculties such as physical education and performing arts have 1.7% researchers. Respondents from fine arts and law are less in numbers.

**Table 1**
**Faculty wise distribution of the respondents**

| Sl. No. | Faculty | Frequency | Percentage |
|---|---|---|---|
| 1 | Fine Arts | 5 | 0.8 |
| 2 | Law | 9 | 1.4 |
| 3 | Performing Arts | 11 | 1.7 |
| 4 | Physical Education | 11 | 1.7 |
| 5 | Management Studies | 19 | 2.9 |
| 6 | Education | 31 | 4.8 |
| 7 | Commerce | 44 | 6.8 |
| 8 | Arts | 55 | 8.5 |
| 9 | Applied Sciences & Technology | 61 | 9.4 |
| 10 | Science | 109 | 16.8 |
| 11 | Social Science | 121 | 18.6 |
| 12 | Oriental Studies | 173 | 26.7 |
| **Total** | | **649** | **100.00** |

## 6.2 Age wise Distribution

Age wise distributions of respondents are shown in Fig.1. It is evident that majority of the research scholars are in the age group of 26-30 (53.2%) and 31.6 are in the age group of 31-35. Only 15.3% are in the age group 20-25.
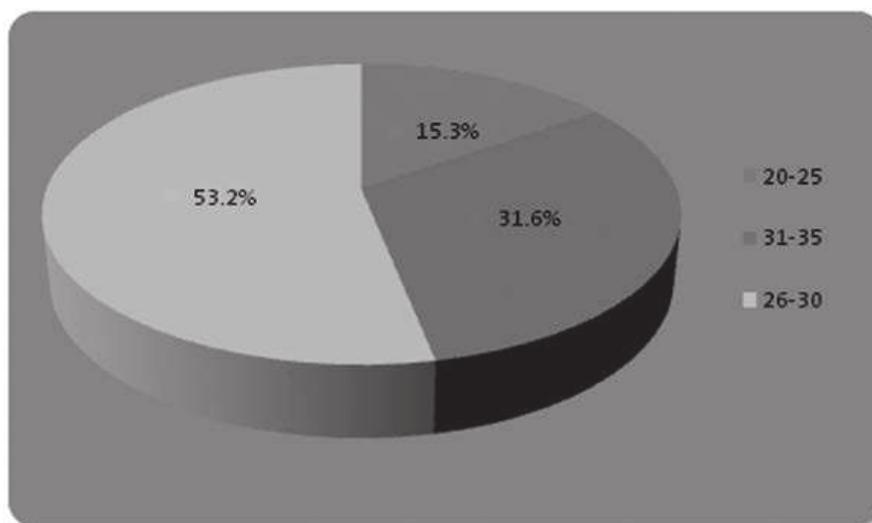


**Fig.1: Age-wise distribution**

## 6.3 Gender and Qualification

Fig.2 reveals that majority of the researchers 350(53.9%) have PG as higher qualification. More female scholars posses PG compared to male scholars. The Fig. also indicates that most of the researchers are female. M. Phil holders are higher in male respondents (48%).
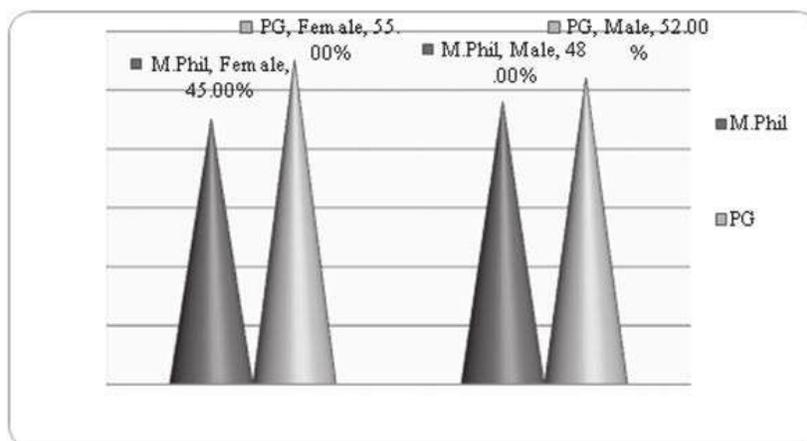


**Fig. 2: Gender & Qualification- Wise Responses**

## 6.4 Use of PIM Tools

Wide range of tools and technologies are now available for the management of personal information. Regarding the use of PIM tools, respondents were asked to indicate multiple choice options according to their preference of use of PIM tools.

It is evident from Table 2 that, 'laptop' and 'USB' are the two PIM tools highly used by researchers. It is followed by 'CD/DVD' and 'personal computers'. It can be concluded that research scholars are using PIM tools for managing their personal information.

**Table 2**
**Distribution of the use of  PIM tools**

| Sl. No. | PIM tools | Responses | Percentage |
|---------|-----------|-----------|------------|
| 1 | Lap top | 576 | 94.3 |
| 2 | Net book | 150 | 24.5 |
| 3 | PC | 441 | 72.2 |
| 4 | CD/DVD | 503 | 82.3 |
| 5 | USB | 576 | 94.3 |
| 6 | PDAs | 136 | 22.3 |
| 7 | Smartphone | 435 | 71.2 |
| 8 | Electronic organizers | 227 | 37.2 |
| 9 | PIM software | 231 | 37.8 |

## 6.5 Types of Personal Information Stored

Table 3 shows the types personal information stored through various internet services. It is clear that 207 (33.9%) research scholars use internet services for storing 'articles'. 'Text documents' are stored by 210 (34.4%) scholars. While ranking the types of personal information stored, it is found that 'article' is ranked first with mean value=3.9 followed by 'text documents' (mean value=3.8) and 'photos' (mean value=3.7). The last rank is given to 'remainders'. The study observed that above two- third of the respondents not interested in using 'tasks', 'to do list', 'memos' through internet services.

**Table 3**
**Types of personal information stored**

| Types of Personal Information | Always | Most of the time | Some times | Seldom | Never | Mean Score | Rank |
|---|---|---|---|---|---|---|---|
| Photos | 196 (32.1%) | 154 (25.2%) | 183 (30%) | 48 (7.9%) | 30 (4.9%) | 3.7 | 3 |
| Videos | 109 (17.8%) | 117 (19.1%) | 224 (36.7%) | 70 (11.5%) | 91 (14.9%) | 3.1 | 7 |
| Audio | 111 (18.2%) | 134 (21.9%) | 192 (31.4%) | 82 (13.4%) | 92 (15.1%) | 3.1 | 6 |
| Text documents | 210 (34.4%) | 201 (32.9%) | 112 (18.3%) | 52 (8.5%) | 36 (5.9%) | 3.8 | 2 |
| Presentations | 164 (26.8%) | 161 (26.4%) | 169 (27.7%) | 78 (12.8%) | 39 (6.4%) | 3.5 | 4 |
| Web links | 118 (19.3%) | 146 (23.9%) | 133 (21.8%) | 127 (20.8%) | 87 (14.2%) | 3.1 | 8 |
| Web pages | 136 (22.3%) | 127 (20.8%) | 129 (21.1%) | 137 (22.4%) | 82 (13.4%) | 3.2 | 5 |
| Contact | 108 (17.7%) | 147 (24.1%) | 146 (23.9%) | 135 (22.1%) | 75 (12.3%) | 3.1 | 9 |
| Appointments | 45 (7.4%) | 39 (6.4%) | 165 (27%) | 176 (28.8%) | 186 (30. 4%) | 2.3 | 12 |
| Tasks | 32 (5.2%) | 61 (10%) | 145 (23.7%) | 164 (26.8%) | 209 (34.2%) | 2.3 | 13 |
| To do list | 39 (6.4%) | 39 (6.4%) | 126 (20.6%) | 178 (29.1%) | 229 (37.5%) | 2.2 | 15 |
| Memos | 46 (7.5%) | 46 (7.5%) | 132 (21.6%) | 178 (29.1%) | 209 (34.2%) | 2.3 | 14 |
| Articles | 207 (33. %) | 206 (33.7%) | 131 (21.4%) | 35 (5.7%) | 32 (5.2%) | 3.9 | 1 |
| Reminders | 48 (7.9%) | 84 (13.7%) | 112 (18.3%) | 192 (31.4%) | 175 (28.6%) | 2.4 | 11 |
| Identification information | 68 (11.1%) | 67 (11%) | 130 (21.3%) | 141 (23.1%) | 205 (33.6%) | 2.4 | 10 |

## 6.6 Methods of Managing Personal Information

Information management is very vital for a researcher to perform. It is important that digital items stored via online storage should be properly managed for their fast, accurate and convenient retrieval and use. Various methods were provided to the respondents to understand their information management methods. The research scholars' information managing methods are shown in the Table 4.

The analysis shows that 227 (37.2%) respondents most of the time use to 'update out dated personal information'. The mean value shows that 'updating out-of-date items' is the top most method (mean value=3.8), followed by the 'deleting unimportant information items' (mean value=3.7) and 'archiving items' (mean value=3.6). The overall study shows that majority of the respondents manage their personal digital information.

**Table 4**
**Methods of managing personal digital information**

| Methods of Managing personal digital information | Always | Most of the time | Some times | Seldom | Never | Mean Score | Rank |
|---|---|---|---|---|---|---|---|
| Updating out-of-date items | 166 (27.2%) | 227 (37.2%) | 160 (26.2%) | 38 (6.2%) | 20 (3.3%) | 3.8 | 1 |
| Archiving items | 102 (16.7%) | 212 (34.7%) | 240 (39.3%) | 38 (6.2%) | 19 (3.1%) | 3.6 | 3 |
| Backing up the information space | 102 (16.7%) | 159 (26%) | 269 (44%) | 63 (10.3%) | 18 (2.9%) | 3.4 | 4 |
| Deleting unimportant information items | 163 (26.7%) | 209 (34.2%) | 168 (27.5%) | 48 (7.9%) | 23 (3.8%) | 3.7 | 2 |
| Find out duplication | 77 (12.6%) | 185 (30.3%) | 243 (39.8%) | 78 (12.8%) | 28 (4.6%) | 3.3 | 5 |

## 6.7 PIM Skills of Respondents

To determine the skill of the research scholars on personal information management, the respondents were asked to identify from the list those PIM skills that reveal their competence towards the use.

Analysis of Table 5 reveals that respondents possess higher level of skill in managing personal information. A consistent percentage of research scholars (35.5%) are having average skill on information 'storing'. 238 (39%) researchers are having above average skill in 'searching'. Respondents also have significant average level of skill in 'assessing and rating' information (44.8%). Few respondents are extremely poor in all PIM skills.

**Table 5**
**PIM skills ranking**

| PIM Skills | Excellent | Above average | Average | Below average | Extremely poor | Mean Score | Rank |
|---|---|---|---|---|---|---|---|
| Searching | 185 (30.3%) | 238 (39%) | 183 (30%) | 3 (0.5%) | 2 (0.3%) | 4.0 | 1 |
| Storing | 181 (29.6%) | 199 (32.6%) | 217 (35.5%) | 12 (2%) | 2 (0.3%) | 3.9 | 2 |
| Classification | 97 (15.9%) | 201 (32.9%) | 259 (42.4%) | 47 (7.7%) | 7 (1.1%) | 3.5 | 3 |
| Maintenance | 91 (14.9%) | 178 (29.1%) | 266 (43.5%) | 74 (12.1%) | 2 (0.3%) | 3.5 | 4 |
| Assessment & Rating | 49 (8%) | 124 (20.3%) | 306 (50.1%) | 128 (20.9%) | 4 (0.7%) | 3.1 | 6 |
| Information Flow Management | 69 (11.3%) | 128 (20.9%) | 274 (44.8%) | 134 (21.9%) | 6 (1%) | 3.2 | 5 |
| Conceptualization | 51 (8.3%) | 108 (17.7%) | 262 (42.9%) | 152 (24.9%) | 38 (6.2%) | 3.0 | 7 |

## 6.8 Attitude towards PIM

To determine the attitude of the research scholars on PIM, the respondents were asked to identify their attitude towards the use of PIM. The findings are presented in Table 6.

The majority of the respondents (48.4%) agree that they 'like to know more about managing personal information'. 319 (52.2%) agree that they can 'apply PIM on research work' and (51.4%) agree that PIM 'makes them more efficient'. The findings of the analysis revealed that majority of the research scholars have positive attitude towards the use of PIM.The mean score rank revealed that the researchers 'like to know more about managing their personal information' (mean value= 4.2) followed by the 'use it for research work' (mean value= 3.8) and 'makes it for more efficient '(mean value= 3.8).

**Table 6**
**PIM attitude ranking**

| Research scholars attitude towards PIM | Strongly agree | Agree | Neutral | Disagree | Strongly disagree | Mean Score | Rank |
|---|---|---|---|---|---|---|---|
| Like to know more about managing personal information | 228 (37.3%) | 296 (48.4%) | 71 (11.6%) | 16 (2.6%) | 0 (0%) | 4.2 | 1 |
| Apply PIM on research work | 108 (17.7%) | 319 (52.2%) | 151 (24.7%) | 29 (4.7%) | 4 (0.7%) | 3.8 | 2 |
| Makes more efficient | 114 (18.7%) | 314 (51.4%) | 138 (22.6%) | 40 (6.5%) | 5 (0.8%) | 3.8 | 3 |
| PIM helps to present papers | 102 (16.7%) | 315 (51.6%) | 162 (26.5%) | 23 (3.8%) | 9 (1.5%) | 3.8 | 4 |
| Effective utilization of time | 134 (21.9%) | 271 (44.4%) | 140 (22.9%) | 64 (10.5%) | 2 (0.3%) | 3.8 | 5 |
| Locate and retrieve required information | 126 (20.6%) | 268 (43.9v) | 174 (28.5%) | 32 (5.2%) | 11 (1.8%) | 3.8 | 6 |
| PIM motivate research work | 100 (16.4%) | 290 (47.5%) | 175 (28.6%) | 42 (6.9%) | 4 (0.7%) | 3.7 | 7 |
| Suffer information overload | 44 (7. 2%) | 252 (41.2%) | 224 (36.7%) | 80 (13.1%) | 11 (1.8%) | 3.4 | 8 |
| Find difficulties in updating my personal information | 73 (11.9%) | 177 (29%) | 217 (35.5%) | 123 (20.1%) | 21 (3.4%) | 3.3 | 9 |

## 7. Findings and Conclusion

The study investigates research scholars' attitude towards personal information management in the University of Kerala. Most of the research scholars under study are from Faculty of Oriental Studies i.e. 173 (26.7%) followed by 121(16.8%) from Social Science Faculty. The study reveals that majority of the researchers are in the age group 26-30. Laptop' and 'USB' are the highly used PIM tools by the researchers. It can be shown that, research scholars are using PIM tools for managing their personal information. The study observed that more than two- third of the respondents not interested in using 'tasks', 'to do list' and 'memos'. Majority of the respondents are able to manage their personal digital information. Research scholars have average skill in storing and maintaining personal information. It is evident that respondents possess skill in managing personal

information. The present study provides an idea about research scholar's personal information management attitudes.

The implication of new PIM technologies by researchers is largely depended on their attitude and skills on PIM. They are interested in using PIM tools for managing personal information. The paper highlights the attitude of research scholars towards personal information management.

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