

PERSONAL INFORMATION MANAGEMENT (PIM) PRACTICES AMONG UNIVERSITY LIBRARY PROFESSIONALS IN BALOCHISTAN

Abdullah Jan¹, Nasir Khan², Muhammad Saleem Kurdzada³, Muhammad Anwar^{*4}

¹Librarian, Government Boys Degree College Dera Allah Yar

²Librarian, Government Shaeed Mir Auranzaib Langau Boys Inter College Khaliqabad, Kalat

³Librarian; Govt: Boys Postgraduate College Sibi, Balochistan

^{*4}Assistant Professor, Department Of Library And Information Science, University Of Balochistan Quetta

¹abdullahchamp143@gmail.com, ²nasirkhanbaloch77@gmail.com, ³saleem.6546@gmail.com,

^{*4}muhammad_anwar7613@yahoo.com

Corresponding Author: *

Muhammad Anwar

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ABSTRACT

Purpose: Personal Information Management (PIM) plays a pivotal role in ensuring efficiency and productivity for professionals, particularly in knowledge-intensive domains such as university libraries. This study investigates the PIM practices among university library professionals in Balochistan. It aims to examine the current strategies employed for managing personal information, identify the tools and methods used, and highlight the challenges faced in this context

Design/Methodology: A quantitative approach was adopted, incorporating surveys with library professionals to gather comprehensive data. The proposed sample size of 12 university library professionals through an online form-based questionnaire was adopted according to the study's objectives and the research tool consisted of 22 questions, in two sections, in the first section 06 questions were about demographics, and the second section there were 16 questions about PIM, choice/ optional and close-ended questions. the research limitation was only the university library professionals of Balochistan (Pakistan). **Findings:** It was found that 50% of the respondents do not have a clear idea of how they arrange their personal information while 37.5% reassured that they do. Filing and document management systems (50 percent) and contact management systems (37.5 percent) were the most used tools for their personal information. However, some problems such as insufficient training on advanced PIM techniques and information overload were common among the professionals. This research addresses the urgency of applying and training current PIM methods in order to improve the quality of libraries' activities.

Keywords: Personal Information Management, PIM, Personal Information Management Balochistan, PIM Balochistan Universities. Personal Information Management Study Balochistan., Library Professionals, Balochistan, ICT Tools, Information Challenges.

INTRODUCTION

1.1 Personal Information Management (PIM)

Today's technological advancements have created a complex and strong information landscape that makes it more difficult than ever to manage personal information. The study of Personal Information Management (PIM) focuses on how people arrange their data so

they can locate objects when they need them. Managing our personal information space is the focus of PIM. As a result, PIM centres on the three closely connected tasks of locating and retrieving information, preserving it, and organizing & analyzing it.

We deal with a lot of information on a daily basis in the information age. People spend a lot of time searching for, classifying, organizing, and exchanging information because it is essential to both our personal and professional lives. Most people can easily capture, create, receive, and save information these days, but accessing, organizing, and using information appears to be a more difficult task. People never logically classify or organize their personal information; instead, they keep it in various formats, across various devices, and in various locations.

Alon, L., & Nachmias, R. (2023) expressed that an important task for the PIM research community is to define what PIM literacy should mean. Some PIM researchers in higher education have started to construct a definition of PIM literacy for librarians. PIM literacy can be broadly defined as the ability to reflect and assess one's own practice, understanding of tools to support those activities, and abilities connected to information management techniques. According to the concept of PIM literacy, people must also cultivate their own advanced tactics or competencies, which go beyond a simple set of abilities. Indeed, the larger PIM literature supports the significance of strategic, individual issue solving. According to research findings, information management is a difficult and complex process that requires a lot of mental capacity. Additionally, there are numerous factors that influence how people resolve information management issues.

Information that is collected, saved, and organized by an individual into digital or paper-based vehicles, such as address books, emails, web pages, etc., is referred to as personal information. Additionally, personal information collections include information that has been forgotten or left behind, with most people returning to the original location to locate the information (Sedghi Sh, et. al., 2015).

The role of effective PIM practices is particularly salient in the context of academic libraries, where the ability to efficiently retrieve information can enhance overall productivity and service delivery. (Fourie, 2011) argues that librarians must not only stay informed about developments in PIM but also actively engage in utilizing these advancements to improve their

own information management practices. By adopting innovative PIM tools and techniques, library professionals can better serve their users, ensuring that they provide relevant and timely information. This proactive approach to PIM not only benefits library staff but also fosters a culture of information literacy among users, equipping them with essential skills to navigate complex information landscapes.

Additionally, the challenges of managing personal information in digital environments have led to calls for more structured approaches to PIM. (Jones & Teevan, 2007) emphasize the necessity of developing frameworks that accommodate the diverse methods individuals use to organize their information. This is particularly relevant for library professionals, as highlighted by (Ameen, 2016), must navigate various digital tools while managing personal and institutional data. By understanding the different organizational strategies that users employ, librarians can better assist them in implementing effective PIM practices tailored to their specific needs.

By providing exploratory context for how university library professionals handle their information in their personal information spaces, this study offers something novel. This information is intended to help guide future studies on the PIM of library professionals and advance our understanding of how librarians function in their information-rich environments. Knowing how librarians handle their information will help PIM software developers and professional development models. This section describes the current understanding of librarians and their interaction with information by discussing research on university library professionals and their information needs, seeking, and use.

For university librarians who handle enormous amounts of data on a daily basis, Personal Information Management (PIM) is a crucial discipline. To guarantee smooth operation and efficiency, PIM entails arranging, preserving, retrieving, and keeping both personal and professional data. PIM for university librarians includes coordinating with students, professors, and institutional repositories while handling digital files, schedules, research queries, and bibliographic data. Librarians can efficiently manage user inquiries, curate resources, and

monitor resource utilization by utilizing specialized tools including citation managers, library management systems, and cloud storage. In addition, PIM helps librarians to balance their administrative and academic support duties, creating a more accessible and knowledge-sharing atmosphere. In addition to guaranteeing data security and compliance with privacy laws, effective PIM procedures help address the growing issues of fragmentation and information overload in academic contexts.

1.2 Purpose of Study

This study's goal is to investigate and assess university librarians' Personal Information Management (PIM) practices, with an emphasis on how these practices affect their effectiveness, productivity, and ability to make decisions in academic settings. The goal of this study is to determine the resources, approaches, and difficulties related to handling private and business data in university libraries. Furthermore, the study aims to comprehend how efficient PIM affects librarians' capacity to facilitate scholarly research, optimize library operations, and protect the privacy and security of data. The findings will aid in the creation of focused solutions and training initiatives by emphasizing best practices and pointing out shortcomings, ultimately strengthening the role of librarians in promoting organizational excellence and knowledge accessibility. It is crucial to explore PIM practices among university library professionals in Balochistan. This study addresses a significant gap in the literature on PIM behaviours within the local context, particularly in developing countries like Pakistan, where such research is currently lacking.

1.3 Significance of the Study

- This study is important because it clarifies how important Personal Information Management (PIM) is to improving university librarians' productivity and efficacy.
- Librarians are essential to academic research, resource curation, and knowledge sharing, and their performance and service quality are directly impacted by their capacity to handle both personal and professional information.

- Through an awareness of PIM's tools, methods, and difficulties, this study offers insightful information about how librarians might enhance time management, streamline processes, and deal with information overload in a quickly changing digital environment.
- The study also emphasizes how crucial it is to implement cutting-edge PIM procedures and tools in order to protect data privacy, optimize workflows, and promote creativity in library administration.

1.4 Research Objectives

1. To examine the current PIM practices of university library professionals in Balochistan,
2. To identify the tools and methods used by library professionals for effective personal information management.
3. To highlight the challenges faced by library professionals in managing personal information.

1.5 Research Questions

1. What are the common PIM practices among university library professionals in Balochistan?
2. Which tools and methods do library professionals primarily use for personal information management?
3. Which challenges do library professionals encounter in their PIM practices?

LITERATURE REVIEW

The rise of digital technologies has transformed the way library professionals engage with Personal Information Management (PIM), requiring new skills and strategies to manage the vast array of available tools. According to (Kelly, 2006) the digital age has increased the complexity of PIM, particularly in how individuals organize, store, and retrieve information in real time across various digital environments. This complexity demands a higher level of information literacy, as library professionals must not only categorize information effectively but also ensure its accessibility and usability when needed.

Moreover, the role of librarians in supporting PIM extends beyond their personal use of

information (Barreau, 1995) found that professionals frequently rely on familiar organizational structures and workflows, which can sometimes hinder innovation in how information is managed. This suggests that while traditional methods of categorization are still in use, there is a growing need for library professionals to adopt new, more flexible PIM systems to meet the demands of the digital era. As Personal Information Management (PIM) systems continue to evolve, the diversity in information storage methods among professionals has garnered attention. (Kwasnik, 1989) emphasized that individuals often organize their information based on personal context, with varied approaches depending on the tasks and environments they operate in. This personalization leads to unique PIM systems, where some may adopt broad organizational categories, while others prefer more granular classifications, reflecting the complexity of managing both personal and institutional information within libraries.

The importance of categorization and retrieval in PIM is also reflected in the work of (Jones & Teevan, 2007). They discuss how the increase in digital platforms has led to the fragmentation of information across multiple systems, making it harder to "keep things found." This issue underscores the need for library professionals to adopt strategies that ensure information, once categorized and stored, can be easily retrieved across platforms, especially when digital fragmentation poses significant retrieval challenges.

Librarians play a pivotal role in managing both personal and institutional information, and their practices often influence how information is organized and retrieved in academic settings. (KWAZacute & NIK, 1991) findings about personalized PIM systems highlight the necessity for librarians to adapt their strategies to meet both personal and organizational needs. This dynamic approach is critical in academic libraries where professionals need to ensure efficient access to information for themselves and for library users.

As the role of technology expands, there is a growing focus on how digital tools are reshaping PIM practices. According to (Jones, 2010), one of the significant challenges in digital PIM is overcoming the issue of

"information fragmentation," where information is scattered across different platforms and devices. This fragmentation poses a particular problem for library professionals, who must ensure that the information they manage is not only accessible but also organized in a way that minimizes the complexity of retrieval.

As library professionals adapt to the challenges posed by digital fragmentation, effective Personal Information Management (PIM) practices become crucial. (Osae Otopah & Dadzie, 2013) explored how university students and professionals manage their digital information and emphasized the importance of organizing information in ways that simplify retrieval. Their research revealed that users often employ diverse methods such as bookmarking, file tagging, and cloud storage to manage digital information, but many still struggle with developing consistent PIM practices that reduce the risk of information loss or mismanagement.

The role of librarians in fostering effective Personal Information Management (PIM) practices among users is vital. As noted by (Fourie, 2011) librarians need to stay alert to new developments in PIM and related areas, such as reference management and information literacy. By helping users adopt innovative tools and practices, librarians enhance the ability of individuals to organize, store, and retrieve personal and academic information efficiently. This highlights the expanding role of library professionals, not just as information managers but as educators in personal information management techniques.

The integration of technology into PIM practices among library professionals has significantly enhanced their ability to manage vast amounts of information. As (Lansdale, 1988) highlighted, the psychological aspects of information management—such as recall, recognition, and categorization—play a crucial role in how effectively individuals can retrieve information they have previously categorized. This suggests that library professionals must not only be adept at using technology but also understand the underlying psychological processes that affect information retrieval. Moreover, training in these areas is essential, as many professionals may struggle with the

cognitive demands associated with managing information in increasingly digital environments (Ameen, 2016).

METHODOLOGY

This chapter addresses the methodology used to investigate the **Personal Information Management (PIM) practices** among university library professionals in Balochistan.

3.1 Design of the study;

Keeping in view the requirements of time according to fulfil the objectives of this study was to explore the **Personal Information Management (PIM) practices** among university library professionals in Balochistan. Data were collected through a structured questionnaire.

3.2 Description of the population and sample;

The sample size of this study was 12 universities, 02 federal university campuses & 40 library professionals/respondents were given their views through a choice optional and close-ended questionnaire.

3.3 Arrangements;

The online form-based questionnaire was adopted according to the study's objectives and the research tool consisted of 22 questions, in two sections, in the first section 06 questions were about demographics, and second section there were 16 questions about PIM, choice/optional and close-ended questions.

3.4 Validity and Reliability;

The researchers and one professional research expert were consulted for the sake of the validity of the research instrument. The research experts evaluated the tool and suggested positive change and improvements in the questionnaire. For its reliability and validity,

the views of all researchers were also included in the questionnaire.

3.5 Data Collection;

The data collection started in November 2024 and was completed in November 2024 in just one month. The researchers conducted the target population and personally collected the data from the targeted sample of 40 library professionals after their positive consent.

3.6 Data analysis and interpretation;

After the data collection process, the collected data was analysed and interpreted using Microsoft Excel & SPSS to draw tables or figures, and percentages to meet the study goals.

RESULTS

In this chapter, the collected data is discussed after the analysis through basic statistical methods. This chapter consisted of data interpretation and discussion; however, collected data were analyzed in Ms. Excel & SPSS to draw figures, percentages, and tables to meet the objectives of the study.

Demographic information;

The demographic information of our research participants provides an exposure alpha of the characteristics of our sample. Where questionnaire was circulated by the researchers among university library professionals, and the data was collected from the respondents with a response rate of (n-40, 100%).

Frequencies across the gender;

The gender distribution of our 40 respondents is as follows, this indicates that 37 of the respondents were male, while 03 were female.



Figure1. Frequency of Male and Female Library Professionals

Position/Designation:

Table 01

Describe the Position/ designation of library professionals

Statement	Frequency	Means
Deputy Chief Librarian	02	0.05
Senior Librarian	05	0.125
Librarian	27	0.675
Lecturer	01	0.025
Cataloguer	01	0.025
Focal Person	03	0.075
Total	100	1.00

Table 1 illustrates the distribution of library professionals across various positions (N=40), with percentage means reflecting the proportion of each role.

The Librarian position dominates at 67.5% (mean = 0.675), followed by Senior Librarians at 12.5% (mean = 0.125) and Focal Persons at 7.5% (mean = 0.075). Deputy Chief Librarians, Lecturers, and Cataloguers each comprise 2.5% (mean = 0.025). The total mean of 1.0 confirms the accuracy of the distributions. The data suggests a concentration of lower-level librarian positions, with limited representation of senior or specialized roles, offering insights for workforce planning and professional development in university libraries.

Highest level of education completed

Table 02

Describes the educational level of library professionals

Statement	Frequency	Means
Doctoral Degree	00	0.00
MPhil Degree	05	0.125
MLIS/ Master's Degree	33	0.825
Bachelor's Degree	02	0.05
Total	40	1.00

Table 2 presents the highest academic qualifications of library professionals in the sample (N=40). The data shows that 82.5% (mean = 0.825) of respondents hold an MLIS/Master's degree, followed by 12.5% (mean = 0.125) with an MPhil. Only 5% have a Bachelor's degree as their highest qualification, and no respondents hold a Doctorate (mean = 0.0).

The low number of Doctorates and MPhils highlights the need for policies and initiatives to encourage advanced qualifications. This underscores the importance of continuing education and professional development programs to enhance the academic and research capabilities of library professionals in Balochistan.

What is the primary goal of PIM?

Table 03

What is the primary goal of PIM?

Statement	Frequency	%
Organization of Information	06	15
Efficient Retrieval	05	12
Information Maintenance	06	15
Privacy and Security	08	20
Integration with Daily Life	15	35

Total	40	100
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Table 3 examines the importance of Personal Information Management (PIM) among library professionals (N=40). The majority (35%) prioritize Work-Related Integration with Daily Life, followed by Privacy and Security (20%) due to concerns over confidentiality. Organization of Information and Information Maintenance each account for 15%, highlighting the importance of preventing disorganization. Efficient Retrieval is noted by 12% as crucial for quick access. These findings reflect the complex nature of PIM, balancing daily integration, security, organization, and retrieval, guiding the design of effective PIM tools for library professionals.

How do you primarily organize your personal information?

Table 04

Describes how Library Professionals organize their personal information.

Statement	Frequency	Mean
By Topic	04	0.1
By Date	09	0.225
By source (e.g., books, articles, websites)	25	0.625
Specific Organization	02	0.05
Total	40	1.00

Table 4 presents how library professionals organize their personal information (N=40). The most common method is by Source (e.g., books, articles, websites), with 62.5% (mean = 0.625). By Date follows at 22.5% (mean = 0.225), while 10% (mean = 0.1) is organized by Topic. A small percentage (5%, mean = 0.05) use Specific Organization. The total mean is 1.0, confirming accurate proportionate distribution. These findings suggest that organizing by source is the most preferred method among library professionals.

How do you primarily organize your personal information?

Table 05

Describes how Library Professionals organize their personal information.

Statement	Frequency	Mean
Yes	15	0.375
Not Sure	20	0.5
No	05	0.125
Total	40	1.00

Table 5 outlines the responses of library professionals regarding the organization of their personal information (N=40). The majority, 50% (mean = 0.5), were Not Sure about how they organize their personal information. 37.5% (mean = 0.375) affirmed that they do organize their information, while 12.5% (mean = 0.125) indicated they do not. The total mean is 1.0, confirming the accurate proportionate distribution. These results suggest uncertainty or inconsistency in the methods used by library professionals for organizing personal information.

Which tools or software do you use for managing your personal information, such as notes, contacts, or calendars?

Table 06

Describes how Library Professionals organize their personal information

Statement	Frequency	Mean
Note-Taking Tools (▪ Evernote ▪ Microsoft OneNote ▪ Notion ▪ Google Keep)	05	0.125

Contact Management Tools (▪ Google Contacts ▪ Microsoft15 Outlook Contacts ▪ HubSpot CRM ▪ Apple Contacts)	0.375
Calendar and Scheduling Tools (▪ Google Calendar ▪ Microsoft00 Outlook Calendar ▪ Apple Calendar ▪ Calendly)	0.00
File and Document Management (▪ Google Drive ▪ Dropbox ▪20 Microsoft OneDrive ▪ Box)	0.50
Total	40 1.00

Table 6 shows the tools library professionals use for managing personal information (N=40). The most popular tool is File and Document Management (e.g., Google Drive), used by 50% (mean = 0.5) of respondents. Contact Management Tools (e.g., Google Contacts) follow at 37.5% (mean = 0.375). Note-Taking Tools (e.g., Evernote) are used by 12.5% (mean = 0.125), while Calendar and Scheduling Tools are not used by any respondents (mean = 0.0). The total mean is 1.0, indicating accurate distribution of responses. These results highlight the preference for file management tools and suggest less reliance on calendars and note-taking apps among library professionals.

Which tools do you use for managing your personal information?

Table 07

Describes which tools Library Professionals use for manage their personal information.

Statement	Frequency	Mean
Microsoft Word	05	0.125
Excel	00	0.00
Google Docs/Sheets	04	0.10
Reference Management Software (e.g., 09 EndNote, Zotero)		0.225
Email	15	0.375
Notepad/Paper	07	0.175
Total	40	1.00

Table 7 illustrates the tools library professionals use for managing personal information (N=40). The most frequently used tool is Email, with 37.5% (mean = 0.375) of respondents relying on it. Reference Management Software (e.g., EndNote, Zotero) follows at 22.5% (mean = 0.225). Notepad/Paper is used by 17.5% (mean = 0.175), while Microsoft Word is used by 12.5% (mean = 0.125), and Google Docs/Sheets is used by 10% (mean = 0.1). Excel is not used by any respondents (mean = 0.0). The total mean is 1.0, indicating accurate proportionate distribution. These results suggest that email and reference management software are the most preferred tools for managing personal information among library professionals.

How do cloud-based services (e.g., Google Drive, iCloud, OneDrive) impact personal information management?

Table 08

Describes which cloud-based services, Library Professionals use about impact personal information management.

Statement	Frequency	Mean
Accessibility and Synchronization	03	0.075
Automation and Integration	05	0.125
Cost-Effectiveness	08	0.20
Data Security and Privacy	06	0.15
Challenges and Risks	11	0.275
Environmental and Sustainability Impacts	07	0.175

Total	40	1.00
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Table 8 explores the impact of cloud-based services on personal information management (N=40). The most significant impact is Challenges and Risks, with 27.5% (mean = 0.275) of respondents highlighting this concern. Cost-Effectiveness follows at 20% (mean = 0.2), and Data Security and Privacy is important for 15% (mean = 0.15). Automation and Integration is noted by 12.5% (mean = 0.125), while Environmental and Sustainability Impacts accounts for 17.5% (mean = 0.175). The least mentioned factor is Accessibility and Synchronization at 7.5% (mean = 0.075). The total mean is 1.0, confirming accurate distribution. These findings underscore the critical issues of security, cost, and challenges associated with using cloud-based services in personal information management.

What role does artificial intelligence (AI) play in Personal Information Management?

Table 09

Describes what role does AI play in personal information management.

Statement	Frequency	Mean
Intelligent Organization and Categorization	03	0.075
Enhanced Search and Retrieval	12	0.3
Personalized Recommendations	05	0.125
Automation of Routine Tasks	03	0.075
Future Innovations in PIM, Virtual Assistants & Fills Knowledge Graphs	17	0.425
Total	40	1.00

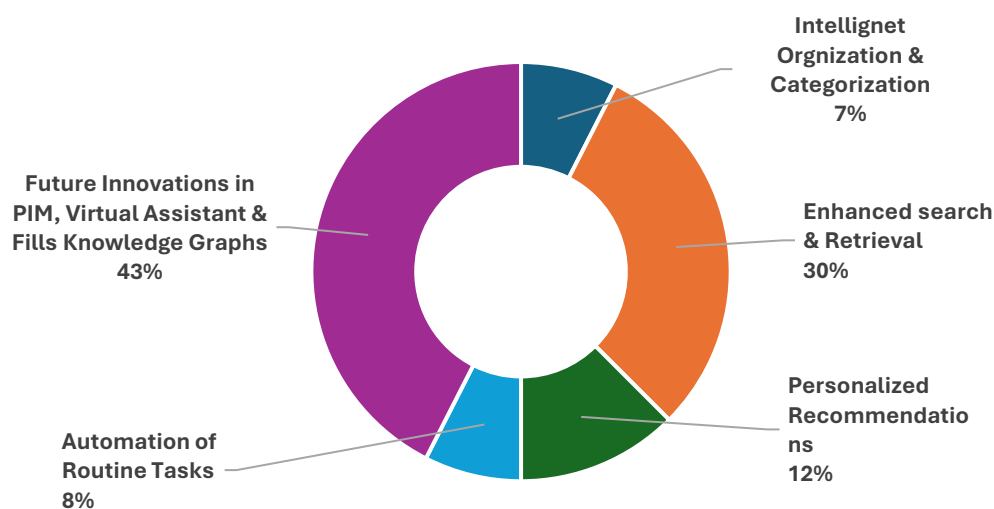


Figure 2. Respondents about what role does AI play in personal information management.

Table 9 and Figure 2 highlight the role of artificial intelligence (AI) in personal information management (N=40). The most prominent role identified is Future Innovations in PIM, Virtual Assistants & Knowledge Graphs, with 42.5% (mean = 0.425) of respondents indicating its importance. Enhanced Search and Retrieval follows at 30% (mean = 0.3), reflecting the relevance of AI in improving information search. Personalized Recommendations account for 12.5% (mean = 0.125), while Intelligent Organization and Categorization and Automation of Routine Tasks both stand at 7.5% (mean = 0.075). The total mean of 1.0 indicates a balanced distribution of responses, with a focus on AI's potential for innovation and improving efficiency in PIM.

Which techniques do you use for organizing digital files and folders?

Table 10

Describes which techniques do Library Professionals use for organizing digital files/ folders.

Statement	Frequency	Mean
Categorization (e.g., Work, Personal, Projects,20 Work, Projects & Client X).		0.50
Naming Conventions.	05	0.125
Folder Structure.	10	0.25
Tagging and Labeling.	05	0.125
Total	40	1.00

Table 10 highlights the techniques used by Library Professionals for organizing digital files and folders (N=40). The most commonly used method is Categorization (e.g., Work, Personal, Projects, Client X), adopted by 50% of professionals (mean = 0.50). Folder Structure is the second most utilized technique, applied by 25% of respondents (mean = 0.25). Naming Conventions and Tagging and Labeling are each employed by 12.5% of professionals (mean = 0.125). The total mean of 1.0 shows that professionals utilize a mix of strategies, with a preference for categorization and structured organization to enhance file management efficiency.

How do you use specialized library management tools for PIM?

Table 11

Describes which techniques Library Professionals use specialized library management tools for PIM.

Statement	Frequency	Mean
Zotero	05	0.125
Mendeley	00	0.00
EndNote	20	0.50
MARC	10	0.25
Dublin	03	0.075
Bibfram	02	0.05
Total	40	1.00

Table 11 illustrates the use of specialized library management tools by Library Professionals for Personal Information Management (PIM) (N=40). The most widely used tool is EndNote, utilized by 50% of professionals (mean = 0.50), followed by MARC, adopted by 25% (mean = 0.25). Zotero is employed by 12.5% of respondents (mean = 0.125). Dublin and Bibframe are used less frequently, with 7.5% (mean = 0.075) and 5% (mean = 0.05), respectively. Mendeley is not used at all (mean = 0.0). The total mean of 1.0 demonstrates a preference for tools like EndNote and MARC, reflecting their importance in managing information efficiently in library settings.

How do you synchronize information across multiple devices (e.g., phone, laptop, tablet)?

Table 12

Describes how Library Professionals use synchronize information across multiple devices.

Statement	Frequency	Mean
Cloud Storage Services (e.g.; Google Drive, iCloud, & Microsoft OneDrive).	05	0.375
Cross-Platform Apps (e.g.; Evernote, Trello, & Rescue Time).	00	0.00
Device-Specific Solutions (e.g.; Android, Apple Continuity, & Windows 10).	10	0.25
Browser Extensions and Add-Ons (e.g.; LastPass, Pocket, & Google Chrome00 Sync).		0.00
Manual Syncing Methods (e.g.; USB drives, Email, & File transfer services).	15	0.375
Cloud Storage Services (e.g.; Google Drive, iCloud, & Microsoft OneDrive).	10	0.25

Total 40 1.00

Table 12 describes how Library Professionals synchronize information across multiple devices (N=40). The most frequently used methods are Cloud Storage Services (e.g., Google Drive, iCloud, & Microsoft OneDrive) and Manual Syncing Methods (e.g., USB drives, Email, & File Transfer Services), each employed by 37.5% of professionals (mean = 0.375). Device-specific solutions (e.g., Android, Apple Continuity, & Windows 10) are used by 25% of respondents (mean = 0.25). Cross-platform apps (e.g., Evernote, Trello, & Rescue Time) and Browser Extensions and Add-Ons (e.g., Last Pass, Pocket, & Google Chrome Sync) are not utilized at all (mean = 0.0). The total mean of 1.0 indicates a balance in synchronization practices, with cloud storage and manual methods being the most popular.

How Effective Personal Information Management (PIM) Contributes to Improved Time Management and Productivity.

Table 13

Describes how effective PIM contributes to improved time management & productivity.

Statement	Frequency	Mean
Streamlined Access to Information	02	0.05
Prioritization of Tasks	05	0.125
Automation of Repetitive Tasks	06	0.15
Better Organization and Reduced Procrastination	05	0.125
Improved Focus and Reduced Distractions	05	0.125
Enhanced Planning and Forecasting	05	0.125
Collaboration and Delegation	03	0.075
Prevention of Errors and Redundancies	04	0.10
Long-Term Efficiency	05	0.125
Total	40	1.00

Table 13 highlights how effective Personal Information Management (PIM) contributes to improved time management and productivity (N=40). The most significant impact is through Automation of Repetitive Tasks (15%, mean = 0.15), followed by multiple equally rated factors, including Prioritization of Tasks, Better Organization and Reduced Procrastination, Improved Focus and Reduced Distractions, Enhanced Planning and Forecasting, and Long-Term Efficiency, each contributing 12.5% (mean = 0.125). Prevention of Errors and Redundancies accounts for 10% (mean = 0.10), while Collaboration and Delegation contributes 7.5% (mean = 0.075). The least cited benefit is Streamlined Access to Information, accounting for 5% (mean = 0.05). The total mean of 1.0 reflects a balanced view, with automation, task prioritization, and organizational efficiency emerging as key contributors to enhanced time management and productivity.

What are the most common obstacles you face when managing personal information?

Table 14

Describes the common obstacles Library Professionals face when managing personal information.

Statement	Frequency	Mean
Information Overload	09	0.225
Lack of Organization Systems	06	0.15
Fragmentation Across Platforms	00	0.00
Security and Privacy Concerns	07	0.175
Difficulty in Finding Relevant Information	03	0.075
Lack of Familiarity with PIM Tools	08	0.20
Regular Maintenance	07	0.175
Compatibility Issues	00	0.00
Total	40	1.00

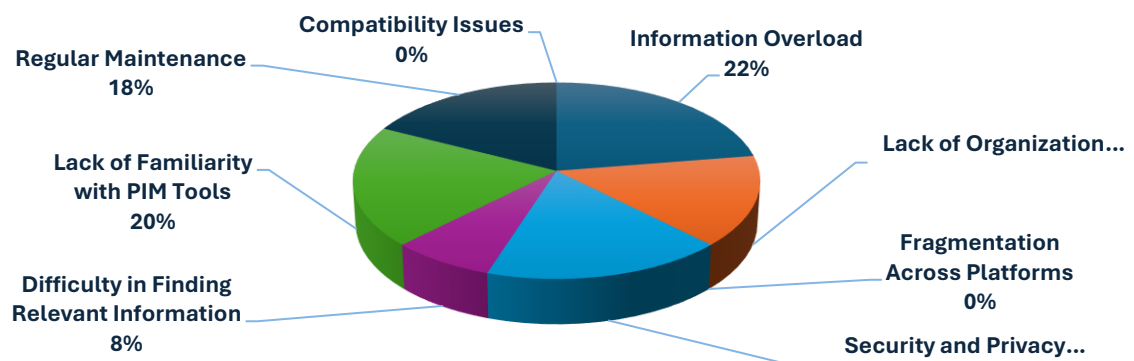


Figure 3. Respondents about the common obstacles Library Professionals face when managing personal information.

Table 14 and Figure 3 highlight the common obstacles Library Professionals face in managing personal information (N=40). The most frequently reported challenge is Information Overload, cited by 22.5% of respondents (mean = 0.225), followed by Lack of Familiarity with PIM Tools, at 20% (mean = 0.20). Security and Privacy Concerns and Regular Maintenance each account for 17.5% (mean = 0.175). Lack of Organization Systems is reported by 15% (mean = 0.15), while Difficulty in Finding Relevant Information contributes 7.5% (mean = 0.075). Fragmentation Across Platforms and Compatibility Issues are not cited at all (mean = 0.0). The total mean of 1.0 indicates that while several challenges exist, information overload and lack of familiarity with PIM tools are the most significant barriers to effective information management.

What are the key challenges in maintaining the privacy of personal information?

Table 15

Describes the challenges in maintaining the privacy of personal information.

Statement	Frequency	Mean
Weak Security Measures.	07	0.175
Overexposure to Social Media.	09	0.225
Lack of Control Over Data Sharing.	11	0.275
Increasing Use of Internet of Things (IoT) Devices.	08	0.20
Insufficient Privacy Education.	05	0.125
Total	40	1.00

Table 15 highlights the key challenges in maintaining the privacy of personal information (N=40). The most significant challenge identified is Lack of Control Over Data Sharing, accounting for 27.5% of responses (mean = 0.275). This is followed by Overexposure to Social Media (22.5%, mean = 0.225) and Increasing Use of Internet of Things (IoT) Devices (20%, mean = 0.20). Weak Security Measures account for 17.5% (mean = 0.175), while Insufficient Privacy Education is reported as the least significant challenge, contributing 12.5% (mean = 0.125). The total mean of 1.0 indicates a balanced distribution of responses, with a primary focus on data-sharing control and social media exposure as key privacy concerns.

What are your biggest challenges in managing personal and professional information in the Library?

Table 16

Describes the challenges in maintaining the privacy of personal information.

Statement	Frequency	Mean
Information Overload.	09	0.225
Lack of standardized systems.	11	0.275
Data breaches and cyber threats.	08	0.20
Inefficient sharing and collaboration.	08	0.20
Blurred lines between work and personal life.	04	0.10
Total	40	1.00

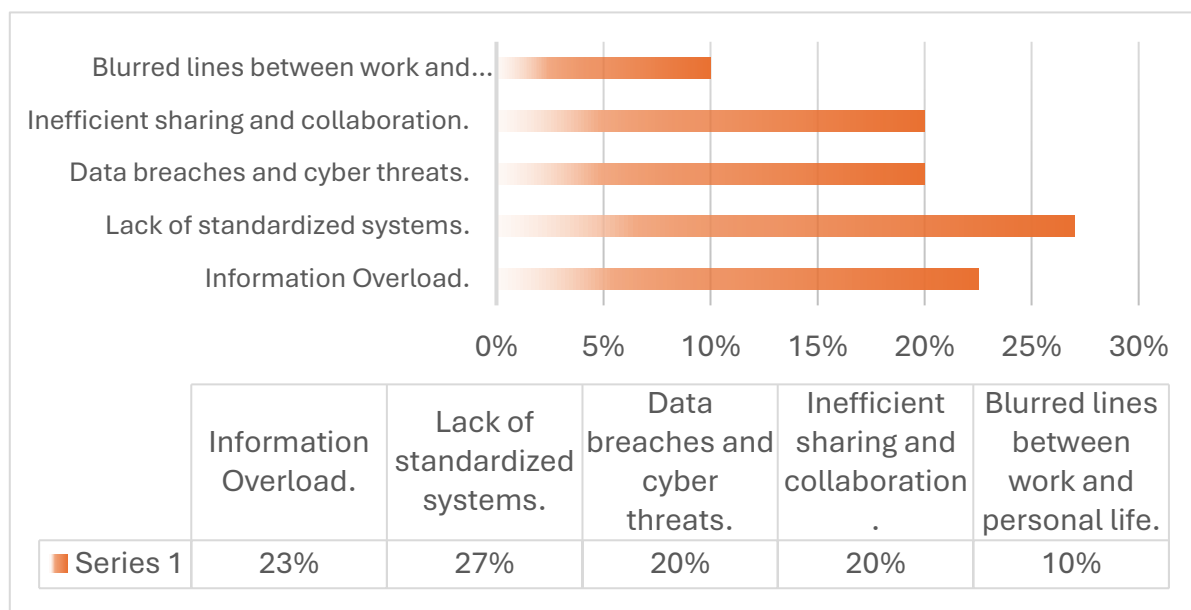


Figure 4. Respondents about the challenges in maintaining the privacy of personal information.

Table 16 and Figure 4 highlight key privacy challenges in libraries. The most significant issue, identified by 27.5% of respondents, is the lack of standardized systems. Information overload (22.5%) and data breaches/cyber threats (20%) are also major concerns. Inefficient sharing and collaboration and the blurred lines between work and personal life (10%) are less significant but still notable challenges. Overall, the main concerns are system standardization and managing large amounts of data.

How do you evaluate the effectiveness of your current PIM system?

Table 17

Describes the effectiveness evaluation of Library Professionals about the current PIM system.

Statement	Frequency	Mean
Advanced	04	0.10
Intermediate	16	0.40
Beginner	20	0.50
Total	40	1.00

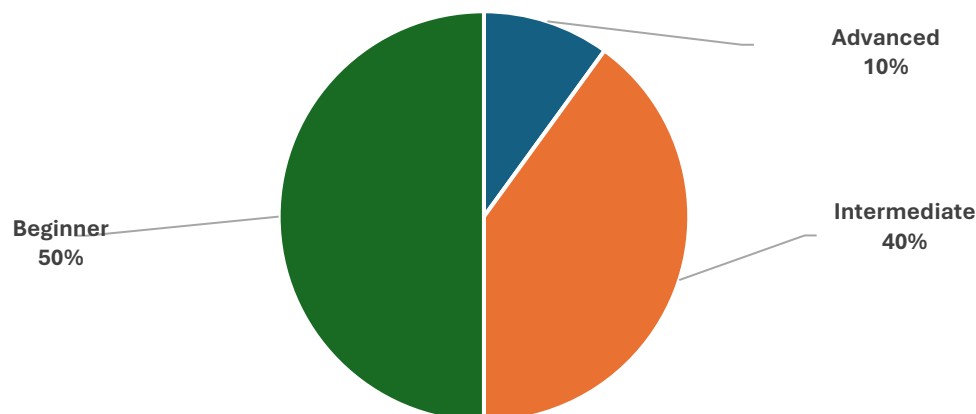


Figure 5. Respondents about the effectiveness evaluation of Library Professionals about current PIM system.

Table 17 and Figure 5 evaluate the effectiveness of the current Personal Information Management (PIM) system among library professionals. 50% of the respondents (20 out of 40) consider their PIM skills to be at a beginner level, indicating a significant gap in advanced PIM knowledge. 40% of respondents (16 out of 40) rate themselves at an intermediate level, suggesting some proficiency but room for improvement. Only 10% (4 out of 40) consider their PIM skills to be advanced, reflecting a need for more advanced tools or training. The total mean of 1.0 suggests a distribution across all levels of expertise, with a majority of professionals needing improvement in managing personal information effectively.

Which skills do you envision future PIM technologies impacting your work in academic libraries?

Table 18

Describes the skills Library Professionals envision future PIM technologies that impact their work at academic libraries.

Statement	Frequency	Mean
Online Courses and Tutorials (▪ Coursera ▪ Udemy ▪ LinkedIn Learning)	10	0.25
Workshops and Webinars (▪ Productivity workshops ▪ PIM conferences ▪ Webinars on PIM tools)	13	0.325
Coaching and Mentoring (▪ Productivity coaching ▪ Mentorship programs)	08	0.20
Self-Directed Learning (▪ PIM blogs ▪ YouTube channels ▪ PIM podcasts)	09	0.225
Total	40	1.00

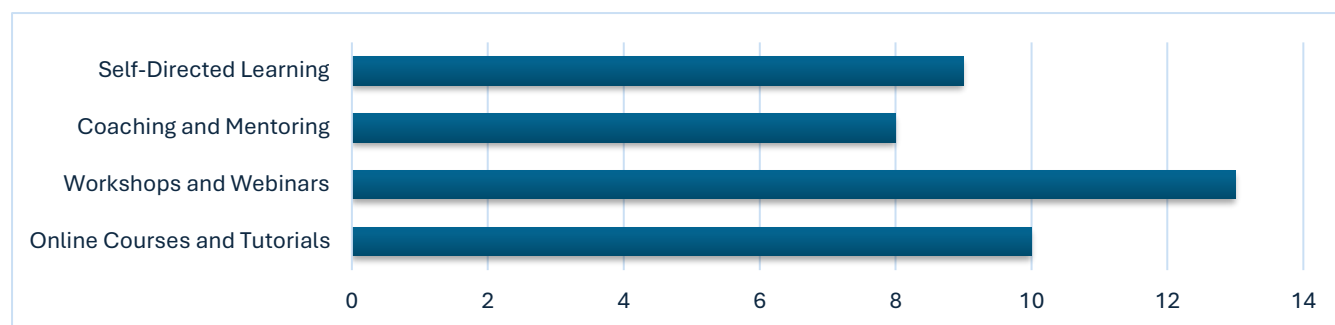


Figure 6. Respondents about the skills Library Professionals envision future PIM technologies that impact their work at academic libraries.

Table 18 Figure 6 describes the skills that library professionals believe will be impacted by future Personal Information Management (PIM) technologies in academic libraries. The

most commonly envisioned impact is from workshops and webinars (32.5%), such as productivity workshops and webinars on PIM tools, reflecting a desire for structured learning

opportunities. Online courses and tutorials (25%) also play a significant role, with professionals seeking access to platforms like Coursera and Udemy. Self-directed learning, such as following PIM blogs or listening to podcasts (22.5%), is another key area for development. Coaching and mentoring (20%), which includes productivity coaching and mentorship programs, is seen as the least impactful but still important for personal growth. The total mean of 1.0 shows that the responses are fairly distributed, with a focus on formal learning opportunities like workshops and online courses.

CONCLUSION

This research has revealed that the Personal Information Management (PIM) practices are very essential for the university librarians in the Balochistan region. With the changing times and librarians trying to cope with the technological revolution, having efficient PIM is greatly needed for enhancing one's productivity, decision making and service provision in general. The results show that while librarians do play a pivotal role in academic research and knowledge dissemination, they contend with several challenges including information overload and fragmentation- which Jone and Teevan (2007) aptly address regarding the management of personal and professional information.

The study points to the need for carefully planned training programs and the use of modern PIM techniques to enable library professionals to deal with the challenges posed by information management. Fourie (2011) maintains that librarians cannot sit back but have to use the advances in PIM in order to improve their practices and the services to their users. In addition, developing context-appropriate best-fit practices can improve processes and protect information in order to achieve an effective library.

Equally important, the cooperation of library staff and the inclusion of their PIM training in the curriculum will help to prepare the new generation of librarians adequately for the tasks ahead of them. This means, as Osaë Otopah and Dadzie (2013) note, that librarians need to know how their information has been managed by users in order to assist users as effectively as

possible. The provision of a complaints mechanism will enhance PIM activities to the end that librarians are able to cope with the increased complexity and more dynamic information environment.

To conclude, addressing the PIM practices of the university librarians in the province of Balochistan is necessary if the performance of the librarians is to be enhanced, and their place in the realization of excellence in the organization and in the access to knowledge is to be sustained. The incorporation of the suggestions made in this specific research can assist libraries improve their service delivery and management of their schools which ultimately will raise the level of knowledge in the region.

RECOMMENDATIONS

It is equally important to highlight the need of improving Personal Information Management practices among Balochistan's university library professionals so as to be more efficient in dealing with personal and professional information. The subsequent recommendations are intended to resolve the challenges that have been identified and to further the best practices in the area of PIM.

1. **Training Programs:** Create an adequate level of training programs on Personal Information Management (PIM) practices including new technologies and techniques on how to improve the working performance of library specialists.
2. **Acquisition of Sophisticated PIM Applications:** Emphasis should be placed on the purchase of sophisticated PIM software and applications that would assist in organizing, retrieving and sharing information in order to counter the problems of excessive information and fragmentation of information in academic environments.
3. **Documentation of Best Practices:** Develop best practices for university libraries located in Balochistan, which facilitate the appropriate handling of time, workflow and data protection as a PIM system.
4. **Use of Collaborative Strategies:** Encourage a collaborative atmosphere within librarians through knowledge-sharing meetings so as to share successful PIM

practices and improve library services in general.

5. **Recurrent Consideration of PIM Challenges:** Introduce systematic evaluations to detect new issues related to the management of personal information and new strategies for targeted improvement of PIM practice.
6. **Inclusion of PIM in the Educational Programs:** Include the PIM module in the curriculum of library science so that the would-be librarians will have enough skills in the management of information.
7. **Creation of a Feedback Mechanism:** Formulate a report where library experts are able to comment on PIM methods, enhancing the continuous development of PIM strategies and tools.

All of these recommendations would be the strongest factors for the development of PIM practices in the University libraries in Balochistan, which further upholds the important functions of the librarians in enhancing the effectiveness of the organizations and access to knowledge.

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