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CONTENTS

Adopting research data management: Perceptions and practices among researchers

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ABSTRACT

Research data management (RDM) is essential for ensuring compliance, integrity, accessibility, and the long-term preservation of research data. Many universities recognize its importance and encourage researchers to adopt best practices. However, despite growing awareness, researchers often struggle to implement RDM effectively. Using a quantitative approach, data is being collected through an online survey targeting researchers from various disciplines. The survey explores RDM perception, current data management behaviors, and barriers preventing full adoption of best practices among researchers at the International Islamic University Malaysia (IIUM), where an institutional RDM policy is still in development. Additionally, this study explores the connection between researchers' perceptions of RDM importance and their actual RDM practices. Respondents are asked to reflect on several thematic aspects of RDM, including data storage and preservation, principles and compliance, privacy and security, and data access and sharing. This paper focuses particularly on the findings related to data storage and preservation. The results offer valuable insights into the extent of alignment between perception and practice in this area and highlight where institutional improvements are needed, particularly where implementation falls short of perceived importance. By presenting emerging findings from the survey, this study aims to contribute to the development of an effective RDM strategy at the institutional level. The results will be particularly relevant for libraries, research offices, and university administrators looking to enhance RDM support services. The full findings of the study, covering all thematic areas, identified challenges, and proposed future interventions, are intended for publication in a peer-reviewed journal to contribute more broadly to the literature on RDM adoption in higher education.

Keywords: Research data management (RDM); Researcher perceptions; Research data management practices; Data storage and preservation; University libraries

1 INTRODUCTION

In the data-driven landscape of contemporary research, Research Data Management (RDM) plays a vital role in ensuring the quality, accessibility, and long-term value of research outputs. RDM involves the systematic organization, documentation, storage, sharing, and preservation of research data throughout the research lifecycle (Borghi & Van Gulick, 2022; Idika et. al., 2023; Tripathi et al., 2017; Xu, 2022). It is increasingly regarded as an essential practice for maintaining research integrity, enhancing transparency, and ensuring reproducibility (Lewis, 2010; Mayernik et al., 2012; Rantasaari, 2022; Whyte & Tedds, 2011). As defined by Willaert et al. (2019, p. 3), RDM is "the process through which a researcher progresses from developing a management strategy for the research data towards an implemented, sustainable business plan for working with active data, as well as storing, archiving and cataloguing data upon completion of a research project". These processes are now widely recognized as foundational to responsible and impactful research practices (Cox & Pinfield, 2014; Gunjal & Gaitanou, 2017).

Research data refer to any material collected, observed, or generated to validate research findings, spanning textual, numerical, visual, audio, qualitative, and coded formats (Drysdale, 2019; Vanderbilt University, 2021). Common formats include spreadsheets, image files, and text documents (Patterton et al., 2018), and the adoption of digital tools has exponentially increased the volume, diversity, and complexity of data produced in academic settings (Adika & Kwanya, 2020). Managing such data effectively supports not only reproducibility and data preservation but also fosters cross-disciplinary reuse and long-term impact (Bryant et al., 2017; Borghi et al., 2018; Parsons, 2013; Kanza & Knight, 2022). Well-structured RDM practices are shown to enhance research quality, increase citations, minimize data loss, and support collaborative innovation (Abduldayan et al., 2021; Leonelli, 2018; Austin et al., 2021; Wong et al., 2020; Donaldson & Koepke, 2022). At a broader level, sound RDM practices contribute to institutional and national goals by advancing open science, enabling transparent research practices, and informing evidence-based decision-making (European Commission, 2019; Academy of Finland, 2019). These imperatives have led to growing emphasis on policies and mandates that encourage or require data management planning, open sharing, and long-term data preservation (EPSRC, 2018).

Despite these global developments, substantial challenges persist in translating policy into practice. Researchers often face barriers such as limited time, lack of awareness, concerns about data misuse or intellectual property, and ethical or legal uncertainties, particularly regarding sensitive or human subject data (Borgman, 2012; Andreoli-Versbach & Mueller-Langerac, 2014; Vela & Shin, 2019). These challenges are even more acute in developing country contexts, where institutional infrastructure, policies, and researcher training are still maturing (Mosha & Ngulube, 2023; Ismail et al., 2022; Elsayed & Saleh, 2018).

Effective support is vital to advancing RDM practices in universities. Academic libraries and research support units are increasingly involved in bridging this gap by providing infrastructure, training, and consultation services (Chiware & Becker, 2018; Syn & Kim, 2019; Akers & Doty, 2013). However, their effectiveness is contingent on institutional commitment, researcher engagement, and alignment with national priorities. Technical dimensions of RDM, such as secure storage, metadata standards, preservation protocols, and trusted repositories, must be matched by behavioural and cultural shifts among researchers (Verbaan & Cox, 2014; Arthur & Van Der Walt, 2024). Without sufficient capacity building, researchers often struggle to internalize and operationalize these practices in their workflows (Fear, 2011; Buys & Shaw, 2015; Perrier et al., 2017).

In Malaysia, the government has articulated a strong commitment to advancing research and innovation. Strategic frameworks such as the Malaysia Education Blueprint 2015–2025 and the National Higher Education Plan: Beyond 2020 highlight the role of universities in knowledge creation and dissemination (Ministry of Education Malaysia, 2015). Substantial public investments, including an RM13.89 billion allocation to public universities in 2018 and a 28.5% return on research funding from 2007 to 2015 (Jusoh, 2018; Chik et al., 2018), underscore the importance of enhancing research quality and output. The 2020 launch of the Malaysia Open Science Platform (MOSP) reflects a national commitment to fostering data openness and aligning with international open science practices (Ibrahim & Wei, 2023).

At the International Islamic University Malaysia (IIUM), the IIUM Library established the Research Data Management Unit (RDMU) in August 2023 in line with global Open Science initiatives to promote awareness and encourage best practices in RDM across the university's research community. This initiative aligns with the growing institutional emphasis on research integrity and responsible research, grounded in the philosophy of Tawhidic Epistemology (Bakar, 2012; Hasan, 2025). Recognizing the strategic role of RDM in advancing both institutional priorities and national research agendas, it is essential to understand how researchers currently engage with RDM in practice. As part of its early efforts, the RDMU conducted a survey to gather baseline data on researchers' perceptions, current practices, challenges faced, and the types of support needed, contributing to the development of an institutional RDM policy. While the broader study explores multiple dimensions of RDM, this paper specifically seeks to explore how researchers at IIUM perceive the importance of data storage and preservation as a key area of RDM, and how these perceptions influence their actual implementation of related practices in their research workflows.

As a research-intensive university with a diverse and multidisciplinary academic community, IIUM provides a relevant context for examining the alignment (or misalignment) between perception and practice. The findings offer valuable insights to inform institutional planning, guide capacity-building initiatives, and support the development of a practical and context-sensitive RDM policy.

2 METHODOLOGY

This study employed a quantitative survey method to investigate RDM perceptions, practices, challenges, and support needs related to RDM at the IIUM. IIUM was selected as the research setting to gain insights from a diverse research population within a single institutional environment. An online survey was used as the primary data collection method due to its cost-effectiveness, timeliness, and ability to reach a broad population across various disciplines (Basil, 2017; Hurst & Bird, 2018; Kozłowski et al., 2021). The instrument was developed using Cognito Forms and was partially adapted from a previous study by Hazmi et al. (2023b). While the original version included governance-related tasks for multiple stakeholders, this study focused solely on tasks relevant to researchers to better align with the study objectives. Additional items were incorporated to broaden the scope of the study. The survey consisted of five sections:

- Section 1: Demographic information
- Section 2: Perception of the importance of RDM
- Section 3: Actual implementation of RDM practices
- Section 4: Barriers to RDM implementation
- Section 5: Recommendations and future directions

A 7-point Likert scale was used in Section 2 (ranging from 1 = Not important to 7 = Extremely important) and Section 3 (ranging from 1 = Never to 7 = Always). Previous studies have suggested that the 7-point Likert scale provides an optimal balance between reliability and validity (Irmak & Erdoğan,

2015; Lozano et al., 2008). In Section 3, an additional response option, "Never experienced", was included alongside the Likert scale to distinguish between tasks respondents had never performed and those they had never encountered. Beyond the Likert-scale items, the survey also incorporated multiple-choice, single-response, and open-ended questions to capture a broader range of insights.

To further strengthen the conceptual foundation of the survey, the study adapted thematic elements from the DAMA (2017) framework and Hazmi et al. (2023a). These frameworks provided a structured lens for understanding RDM-related domains. The thematic areas, such as data principles and governance, data security, compliance mechanisms, storage infrastructure, privacy safeguards, and data sharing protocols, guided the categorization of relevant survey items under Section 3. Accordingly, the survey captured insights on RDM practices among IIUM researchers across four key areas: i. data principles and compliance, ii. data storage and preservation, iii. data privacy and security, and iv. data access and sharing.

To ensure the reliability, validity, and ethical integrity of the data collection process, several preparatory steps were taken before administering the survey. The questionnaire began with a consent and introduction section to ensure that respondents understood the study's purpose, their voluntary participation, data anonymity, and the value of their contribution (Kazembe et al., 2024; Kristinsson & Árnason, 2007; McMillan, 2012; Merriam & Tisdell, 2015). Definitions of key terms were provided to promote a shared understanding of the main concepts (Peytchev et al., 2010). The survey was administered in English and underwent a vetting process by the Library Vetting Committee. This review aimed to ensure that the survey content was appropriate and aligned with the university's ethical standards and public image, thereby contributing to the content validity of the instrument.

To further ensure the clarity and technical reliability of the instrument, a pilot survey was conducted among a group of librarians consisting of data stewards and liaison librarians. This pilot tested the wording of questions, platform functionality, and the estimated completion time (Check & Schutt, 2012). Based on feedback, necessary adjustments were made to improve question clarity and flow (In, 2017). The final version of the survey was designed to be concise, with an estimated completion time of less than thirty minutes, to encourage participation and minimize respondent fatigue. The survey was launched in mid-May 2025 and remained open for three weeks, initially for one week, then extended for another two weeks, closing in mid-June 2025. To ensure broad participation across the university community, the survey was repeatedly promoted via IIUM's institutional email announcement system, library social media, and through personal outreach, targeting lecturers, staff, and student researchers.

Data were analysed using both descriptive and inferential statistics to identify trends and relationships among variables. Descriptive statistics summarized responses related to perceptions, practices, support, and challenges. Inferential statistics, like Spearman's correlation, were employed to explore relationships between researchers' perceptions and their actual RDM practices. All statistical analyses were conducted using IBM SPSS and Microsoft Excel. Additionally, ATLAS.ti was used to manage and analyse the literature reviewed for this study, allowing for thematic coding and the identification of key patterns and concepts relevant to the topic.

3   RESULTS AND DISCUSSION

This section presents the findings of the study in three parts. It begins with the demographic profile of the respondents to provide context about their background and research experience. This is followed by an analysis of their perceptions regarding the importance of RDM with a specific focus on data storage and preservation. Finally, the section examines the respondents' actual practices and levels of implementation in this key area.

3.1 Respondent Demographics

By the end of the data collection phase, the survey received 101 responses from respondents across various disciplines. According to **Table 1**, the vast majority of respondents, 98 individuals (97.03%) of the sample, are academic staff. Among them, some hold dual roles, with nearly half (n=46, 45.54%) as principal investigators and two of them (1.98%) currently pursuing postgraduate studies. In addition, there are three postgraduate students (2.97%) from the Humanities and Social Sciences (HSS) field.

In terms of experience, representation across fields is fairly balanced. There are 21 (20.79%) early-career researchers, defined as those with less than 5 years of experience, consisting of 10 from the HSS and 10 from the Science, Technology, Engineering, and Mathematics (STEM), and one with a multidisciplinary background. A total of 17 (16.83%) have between six to ten years of experience, are more commonly found in the STEM field (n=12) compared to HSS (n=5). Most respondents (n=63, 62.38%) have over 10 years of experience in their respective areas. Of these, 32 are from the HSS, 28 from the STEM, and 3 from multidisciplinary backgrounds.

Table 1: Demographic characteristics of the study participants

Characteristic	All (n=101) n (%)	HSS (n = 47) n (%)	STEM (n = 50) n (%)	Multidisc (n = 4) n (%)
Role				
1 Academic Staff	50 (49.51)	25 (53.19)	23 (46.00)	2 (50.00)
2 Academic Staff, Postgraduate students	2 (1.98)	1 (2.13)	1 (2.00)	-
3 Postgraduate students	3 (2.97)	3 (6.38)		-
4 Principal Investigator, Academic Staff	46 (45.54)	18 (38.30)	26 (52.00)	2 (50.00)
Year				
1 Less than 1 year	3 (2.97)	3 (6.38)	-	-
2 1-5 years	18 (17.82)	7 (14.89)	10 (20.00)	1 (25.00)
3 6-10 years	17 (16.83)	5 (10.64)	12 (24.00)	-
4 More than 10 years	63 (62.38)	32 (68.09)	28 (56.00)	3 (75.00)

3.2 Perceptions of RDM Importance

When it comes to perceptions of the importance of RDM in supporting overall research integrity, the findings in **Figure 1** reveal a distinctly positive outlook among respondents. A majority of 92 respondents (91.08%) rated RDM as "Important" to "Extremely important", with 35 (34.65%) selecting "Important", 29 (28.71%) "Very important", and 28 (27.72%) "Extremely important". Only one respondent (0.99%) considered it as "Slightly important", and none indicated that RDM is "Not important". This distribution demonstrates a strong positive skew, suggesting that most researchers conceptually acknowledge the essential role of RDM in upholding research quality, reproducibility, and ethical standards (Buys and Shaw, 2015; Chiarelli et al., 2021; Chigwada, 2022; Kanza & Knight, 2022; Rantasaari, 2022; Van Loen et al., 2024). A small minority of respondents (n = 8, 7.92%) rated RDM as only "Somewhat important" or "Moderately important", which may suggest a lack of awareness regarding its importance, or insufficient skills and resources to implement it effectively (Aydinoglu et al., 2017; Chigwada, 2022; Wilms et al., 2020).
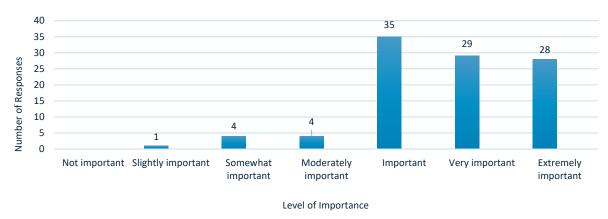
Figure 1: Perceived Importance of Research Data Management

The question further asked whether RDM adds extra workload without significant benefits, and respondents were provided an open-ended space to justify their responses. **Figure 2** shows that, out of the total, 70 respondents (69.31%) answered "No", indicating they believe that while RDM may involve additional work, its benefits outweigh the burden. Their justifications strongly affirmed the value of RDM in supporting organized, ethical, and impactful research. Several emphasized that RDM is "*beneficial, of course*", "*an integral part of the research process*", and "*extremely important*", while others acknowledged the effort required but highlighted the long-term advantages. One respondent stated, *"Although it can be tedious, it is important",* while another explained, *"Yes, it involves extra work, but this work is worth it as it safeguards research, supports collaboration, and fulfils ethical and legal requirements".* Many described RDM as a key to improving transparency, efficiency, and reusability in research, with one adding, *"Properly managed data supports open science and trust in research findings".* A few also noted that institutional systems or support could ease the workload, such as *"If the system and guide are in place, it becomes part of the research, not an extra task".* Overall, these responses reflect a strong consensus among "No" respondents that RDM is a necessary and valuable component of high-quality research.

For those who answered "Yes" to whether RDM adds extra workload without significant benefits (n = 31, 30.69%), their justifications highlighted a variety of concerns, particularly regarding time, system inefficiencies, and institutional expectations. Many viewed RDM as an additional clerical task that requires *"more data compiling, recording and reporting",* especially burdensome when existing systems are *"not user-friendly"* or *"not fully integrated",* requiring multiple data entries across platforms like HURIS, RMS, and IREP. Several respondents stressed that *"duplication of data must be avoided"* and advocated for automation and integration, noting that without these supports, *"better not to have it".* A few acknowledged the benefits but still found the process demanding, such as one saying: *"It did add extra workload but it pays off in efficiency, credibility, and compliance".* Others emphasized the disproportionate impact on already overloaded researchers, such as clinicians who juggle multiple roles, saying, *"As a clinician… RDM is quite demanding",* or that research is only a part of their Key Performance Indicators (KPIs). Furthermore, the lack of training and institutional support was a common theme, with respondents stating that *"it would be burdensome if no proper training is given"* and *"researchers should not be required to handle the aspects of RDM".* While some recognized the long-term value of RDM, they emphasized that these benefits are often institutional rather than individual, leading to perceptions of RDM as *"an obligation more than a strategic advantage".* Overall, this group's feedback suggests that unless RDM is supported by streamlined systems, automation, training, and recognition, it risks being perceived as an administrative burden.

Yes
31, 30.69%

No
70, 69.31%

■ No
■ Yes
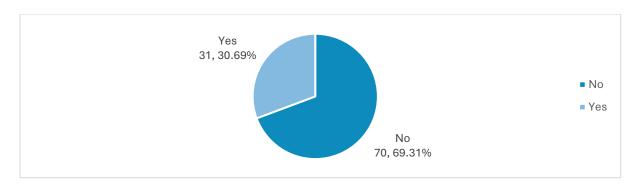
Figure 2: Perceptions on RDM Burden vs. Benefit

Additionally, the respondents were asked to rate the importance of key areas of RDM. The findings on the data storage and preservation, as illustrated in **Figure 3**, indicate that the majority of respondents rated it between "Important" and "Extremely important", reflecting an overall positive perception of RDM's role in supporting research integrity, as discussed earlier. Specifically, 37 respondents (36.63%) selected "Extremely important", while 35 respondents (34.65%) rated it as "Very important", and 22 respondents (21.78%) rated it as "Important". Notably, fewer than 1% of respondents rated this aspect as either "Slightly important" or "Somewhat important", and fewer than 5% selected "Moderately important". No respondents rated it as "Not important". These results underscore a strong recognition of the critical role that data storage and preservation play in ensuring the long-term accessibility and reuse of research data. This is particularly important given that data from publicly funded projects are considered public goods and should be accessible to the wider scientific community (Choi & Lee, 2020; Oliveira Lucas et al., 2025). Ultimately, effective data storage and preservation contribute to greater research transparency, support institutional memory, and deliver benefits to the broader academic community and society at large.
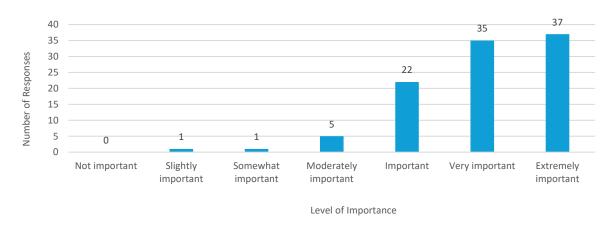
Figure 3: Perceived Importance of Data Storage and Preservation in RDM

3.3 RDM Practices and Implementation

To understand what kind of research data the respondents are dealing with, the question began by asking what types of data they typically manage. The survey findings (**Figure 4**) show that qualitative data is the most common, managed by 69 respondents (68.32%), closely followed by quantitative data, reported by 68 respondents (67.33%). This indicates the dominant role of both data types across various research disciplines. Audio-visual media is handled by 25 respondents (24.75%), and

experimental data by 24 respondents (23.76%), suggesting a growing engagement with digital, behavioural, and lab-based research. Sixteen respondents (15.84%) work with large datasets, while 15 respondents (14.85%) use computational models or algorithms, highlighting emerging practices in big data and data science. Sensitive patient or clinical data is managed by 19 respondents (18.81%), reflecting ongoing research activity in health-related fields that require careful handling of data. Archival or historical documents were cited by 8 respondents (7.92%). Additionally, 4 respondents (3.96%) each have reported managing other types of data such as x-ray images, reports, letters, and publications.
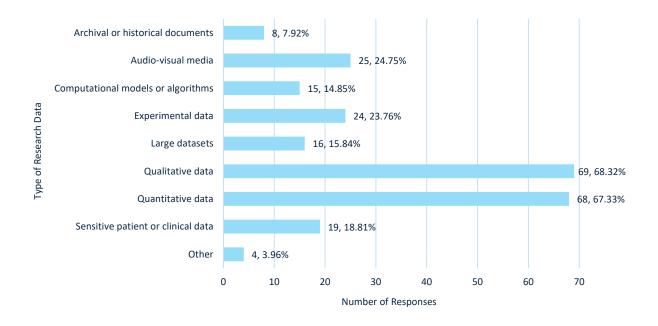
Figure 4: Categories of Research Data handled across Fields

The findings regarding the implementation of data storage and preservation practices suggest that respondents are involved in carrying out these activities, as illustrated in **Figure 5**. The practice of safely and securely storing research data is well established, with 79 respondents (78.22%) indicating "Frequently" or higher, including 42 (41.58%) who selected "Always". Only 2 respondents (1.98%) reported "Never Experienced", suggesting that almost all have had some exposure to this practice. Similarly, backing up research data to prevent loss is a strong practice area, with 79 respondents (78.22%) indicating regular engagement and just 1 (0.99%) indicating "Never Experienced". Secure data retention is another strength, with 79 respondents (78.22%) selecting "Frequently" or higher, and only 1 (0.99%) indicating "Never Experienced". Ensuring long-term accessibility of research data is also widely practiced, with 74 respondents (73.27%) selecting "Frequently" or higher, and only 2 (1.98%) reporting "Never Experienced".

Meanwhile, the use of open, recommended file formats for long-term storage exhibited a more moderate pattern. A total of 53 respondents (52.48%) reported frequent or consistent use (ranging from "Frequently" to "Always"), while 24 (23.76%) indicated infrequent engagement (ranging from "Never" to "Rarely"), and 7 respondents (6.93%) selected "Never Experienced", suggesting a need for targeted awareness or training in this area. As noted by Ferschweiler et al. (2022), adopting open file formats may require proficiency in specific programming languages or tools, which can be a barrier for some researchers.

On the other hand, practices related to the secure disposal of research data and ensuring its reuse after project completion appear to be less consistently implemented. For secure disposal, 43 respondents (42.57%) reported frequent or consistent engagement, while 36 (35.64%) indicated infrequent engagement ("Never" to "Rarely"), and 8 respondents (7.92%) selected "Never Experienced". Similarly, only 36 respondents (35.64%) regularly transfer and document data for future reuse, while 38 (37.62%) reported low frequency, and 8 (7.92%) had "Never Experienced" this practice. The inconsistencies in securing data disposal may be attributed to ethical concerns, particularly those involving privacy and confidentiality, which can complicate decisions, as noted in previous studies (Dahabiyeh & Taha, 2024; Xafis & Labude, 2019). However, effective research data documentation after the completion of a project is essential to ensure that data can be reused in an interoperable manner, using standardized formats and common vocabularies. This, in turn, helps maintain high levels of data quality and trustworthiness (Navale & McAuliffe, 2018). Overall, these findings highlight that while foundational RDM practices are well adopted across the institution, later-stage practices such as proper data disposal and post-research data documentation for reuse remain underdeveloped and may benefit from clearer institutional guidance, policy reinforcement, and training interventions (Mosha & Ngulube, 2023).

Figure 5: Level of Engagement in Data Storage and Preservation Practices

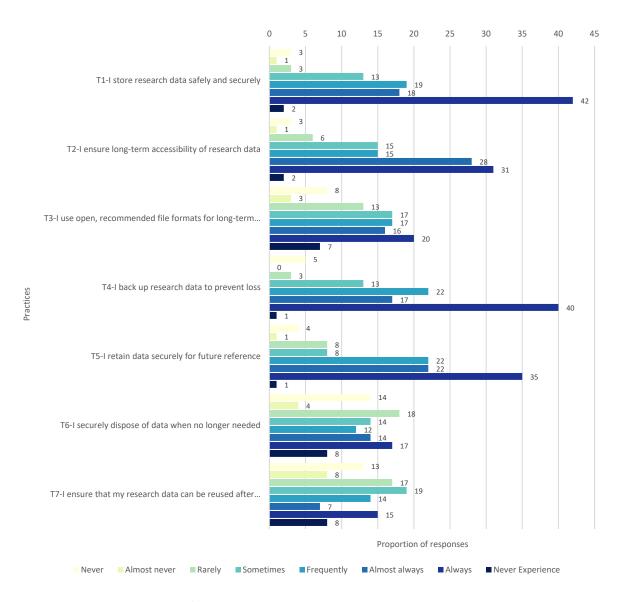### 3.4 Perceived Importance vs. Actual Implementation

This section presents findings from the Spearman correlation analysis between researchers' perceptions and their implementation of data storage and preservation practices at IIUM. The results are summarized and illustrated in **Table 2**.

Table 2: Correlation of RDM Perception with Implementation Tasks

Item	ρ	p-value	N	Sig.
T1 - I store research data safely and securely	0.262	0.009	99	**
T2 - I ensure long-term accessibility of research data	0.249	0.013	99	*
T3 - I use open, recommended file formats for long-term storage	0.062	0.551	94	ns
T4 - I back up research data to prevent loss	0.113	0.262	100	ns
T5 - I retain data securely for future reference	0.183	0.068	100	ns
T6 - I securely dispose of data when no longer needed	0.065	0.533	93	ns
T7 - I ensure that my research data can be reused after the project ends	0.022	0.832	93	ns
*Overall Mean	0.174	0.083	101	ns

Note:
Sample size (N) varies due to the exclusion of "Never Experienced" responses.
*Spearman's rho (ρ) values represent correlations between the mean perception score and the mean implementation score of all tasks.
ρ = Spearman's rho
p-value = 2-tailed significance
Significance:
** = p < 0.01
* = p < 0.05
ns = not significant (p ≥ 0.05)

The findings show that the correlations in the data storage and preservation area are generally weaker and less consistent. Only T1 and T2 reached statistical significance ($ρ = 0.262$, $p = 0.009$ and $ρ = 0.249$, $p = 0.013$, respectively), indicating a modest association between researchers' perceptions and their actions related to securely storing research data and ensuring its long-term accessibility. T3 through T7 did not show significant correlations, with low rho values and high *p-values*. For example, T6 (I securely dispose of data when no longer needed) ($ρ = 0.062$, $p = 0.551$) and T7 (I ensure that my research data can be reused after the project ends) ($ρ = 0.022$, $p = 0.832$).

The overall mean correlation for this area ($ρ = 0.174$, $p = 0.083$) is not statistically significant, suggesting that although researchers may recognize the importance of data storage and preservation, this awareness is not consistently reflected in practice. Contributing factors may include a lack of infrastructure (Amorim et al., 2017; Odebrecht, 2025), technical expertise (Aydinoglu et al., 2017; Mthembu & Ocholla, 2024; Thompson, 2018; Ziefle & Schaar, 2010), or clear institutional policies and support mechanisms (Arthur & Van Der Walt, 2024; Masinde et al., 2021; Yu, et al., 2017).

4 CONCLUSION

This study examined researchers' perceptions and practices of data storage and preservation in RDM, as well as the relationship between their perceived importance of RDM and its actual implementation at IIUM. The findings revealed that researchers generally held positive views about the importance of RDM, particularly in ensuring effective data storage and long-term preservation. However, this positive perception did not consistently translate into corresponding implementation. The weak association observed suggests the presence of uncertainty or practical barriers that may hinder practice. These findings underscore a perception–practice relationship and indicate that raising

awareness alone may be insufficient to foster meaningful adoption of RDM practices. Overall, this study underscores the importance of strengthening both RDM capacity and institutional commitment. To foster a culture of responsible data stewardship, universities must go beyond promoting awareness and invest in comprehensive strategies that include technical infrastructure, clear policies, and human-centred support mechanisms. By aligning institutional structures with researchers' perceptions and practical realities, IIUM and similar institutions can enhance research quality, integrity, and impact.

The limitations of this study must be acknowledged. First, the study relied on voluntary survey responses from a single institution, which may introduce self-selection bias and limit the generalizability of the findings to broader contexts. Second, the modest sample size could limit the representativeness of the findings. Nonetheless, despite the modest response rate, the consistency of emerging themes and the participation of experienced researchers enhance the credibility of the findings and support their relevance to similar academic settings. Third, the use of a purely quantitative approach may have limited the depth of insights into researchers' underlying motivations, challenges, and contextual factors. To address these limitations, future research should consider larger, multi-institutional samples and employ qualitative methods to gain richer, more nuanced understandings of RDM practices.

5   ACKNOWLEDGEMENT

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