



Central Repository System: A Quantitative Analysis of Its Feasibility and Applicability in MMSU

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Abstract

Philippine government entities are struggling to improve services to catch up with the demands of the contemporary times which is to embed technology. One case is the potential work output of a cloud-powered productivity platform that is beneficial for State Universities and Colleges (SUCs) to advance the process of their government services. This study analyzed the feasibility and applicability of a *central repository system* (CRS) using a platform, Microsoft 365, of the Mariano Marcos State University (MMSU), Philippines, to enhance knowledge and improve management practices to attain efficient, effective, and dynamic public services. The paper used *descriptive research design* with a particular context in educational institutes to assess employee awareness, current knowledge of product management, and user perceptions of a central repository. The paper uncovered that some of the employees demonstrated familiarity with Microsoft Office 365 and MS One Drive. However, several university units had best practices in knowledge product management. The challenge then is the optimization of an educational matrix with a full understanding of the platform, login issues, and consistency of data management. Further, integrating Microsoft SharePoint's advanced features for knowledge management and document collaboration, leveraging pre-built templates, enhanced search capabilities, and robust workflow management will create a well-organized, user-friendly, and collaborative CRS that will augment knowledge management and support the university's core functions.

Subject Areas

Applications of Communication Systems

Keywords

Central Repository System, Knowledge Product, Knowledge Portal

Awareness, Knowledge Portal Practices, Microsoft Office 365, University,
Philippines

1. Introduction

In a knowledge-driven economy, information is more than just data; it is the lifeblood that fuels informed decisions, sparks innovation, and maintains competitiveness. Organizations must undertake the systematic journey of creating, acquiring, organizing, sharing, and applying knowledge to thrive. However, capturing and sharing tacit knowledge remains a challenge, leading to duplicated efforts, missed opportunities, and reduced productivity (Lartey *et al.*, 2022) [1]. MMSU, a leading higher education institution in the Philippines, recognizes the importance of knowledge management in achieving its vision of holistic learning.

As a center of knowledge creation and dissemination, MMSU generates vast data through its academic, administration, research, and extension activities. These resources, including publications, datasets, and administrative documents are traditionally scattered across various departments, hindering access, management, and sharing. To address this challenge, the paper aimed to establish a repository system that could streamline and enhance institutional knowledge management and support the university's overall academic and administrative functions. Specifically, the study aimed to assess the employees' level of awareness, and perceptions of the knowledge portal in terms of accessibility, utility, applicability, and methods used to manage the storage along with data acquisition, refinement, storage, retrieval, distribution, and presentation. The paper likewise identified the challenges the employees encountered regarding knowledge portal accessibility, utility, and applicability. At the same time, it explored how the repository system could meet the challenges the employees encountered.

The study sought to answer the following questions: 1) What is the employees' level of awareness of the knowledge portal (storage system) in terms of a) accessibility, b) utility, and c) applicability? 2) What are the methods used to manage the storage of institutional knowledge products along with a) data acquisition, b) refinement c) storage and retrieval, d) distribution; and e) presentation? 3) What challenges do the employees encounter regarding knowledge portal accessibility, utility, and applicability? 4) How could the repository system meet the challenges encountered by the employees?

2. Literature Review

Universities are increasingly adopting cloud-based solutions for knowledge management due to their scalability, accessibility, and cost-effectiveness (Almehrzi, 2021) [2]. One such solution is Microsoft OneDrive, a cloud storage platform that offers features like file sharing, version control, and document collaboration. These features can potentially address the challenges of fragmented information

and limited accessibility within universities by providing a centralized platform for storing, organizing, and sharing knowledge products. However, implementing such a system requires careful consideration of legal and university policies including the Data Privacy Act of 2012 of the Philippines to ensure the appropriate storage, access, and use of institutional knowledge products. Additionally, determining appropriate access levels for different user groups (e.g., faculty, staff, students, alumni) is crucial for maintaining data integrity and ensuring authorized access to sensitive information (Aluvalu & Muddana, 2015) [3]. According to Digby (2021) [4], higher education is becoming more and more dependent on a range of technological systems that are essential to the institutions' mission. Based on further research, these systems could be learning management systems, student information systems, payroll and personnel systems, or academic library systems (Lang and Pirani, 2014) [5]. The cost of implementing, running, and maintaining these vital systems is similarly high. The process of replacing outdated legacy systems with more modern ones can be costly and time-consuming for employees as technology develops. These expenses cover not just the infrastructure of technology, but also the ongoing training of academics, staff, and students who use these systems regularly. For these reasons, it is critical to comprehend how leaders make these crucial and expensive judgments about the adoption of new technologies to both comprehend the decision-making process and maybe facilitate the development of better procedures and guidelines (Wong, K. Y., & Radcliffe, J., 2019) [6].

The emerging vital strategy for organizations to effectively harness their intellectual wealth is Knowledge Management (KM) (Robinson & Amsler, 2024) [7]. This fosters knowledge and expertise sharing, enabling collaboration towards common goals and efficient problem-solving. This transformation demands meticulous planning and resource allocation, but it offers organizations the potential to unlock their knowledge assets, driving innovation, boosting productivity, and achieving superior results (Abubakar *et al.*, 2019) [8]. Several academic institutions are implementing cloud-based programs, such as Microsoft Office 365. One of Malaysia's reputable professional universities has shown some interest in cloud computing services. This professional college has invested millions of dollars in dedicated storage servers for each of its branches to improve storage (Hussin and Mohamad, 2021) [9]. Thus, using Microsoft One Drive's, cloud computing services can save the running costs of maintaining storage servers. Users and organizations will gain much from the cloud computing subscription service when it is utilized as a regular tool, both directly and indirectly. As such, a CRS is a potential solution to address these limitations, create a more unified platform for knowledge management, investigate methods to improve user engagement and explore its potential to address the challenges of accessibility, utility, and applicability of knowledge products within the university. On the other hand, Pola (2024) [10] revealed the significant relationships between various variables, indicating the need for further policy development and implementation, and emphasized the importance of effective policy implementation and data-driven decision-making

to address challenges related to employment and environmental protection. A CRS can therefore contribute to these goals by providing a centralized platform to improve the mishandling of waste.

While cloud-based solutions like OneDrive, offer potential benefits for knowledge management, Microsoft Office 365 was chosen as the preferred platform for the university's knowledge repository system because of its comprehensive feature set, robust security, seamless integration with existing systems, and user-friendly interface. This decision was further supported by the university's present familiarity with Microsoft products and the potential for cost-effectiveness through bundled licensing.

3. Methodology

The paper followed the quantitative data collection procedures, then applied statistical methods, and the results were interpreted and further analyzed. It established the aspects that need to be further studied for the feasibility and acceptability of the university repository system.

3.1. Research Design

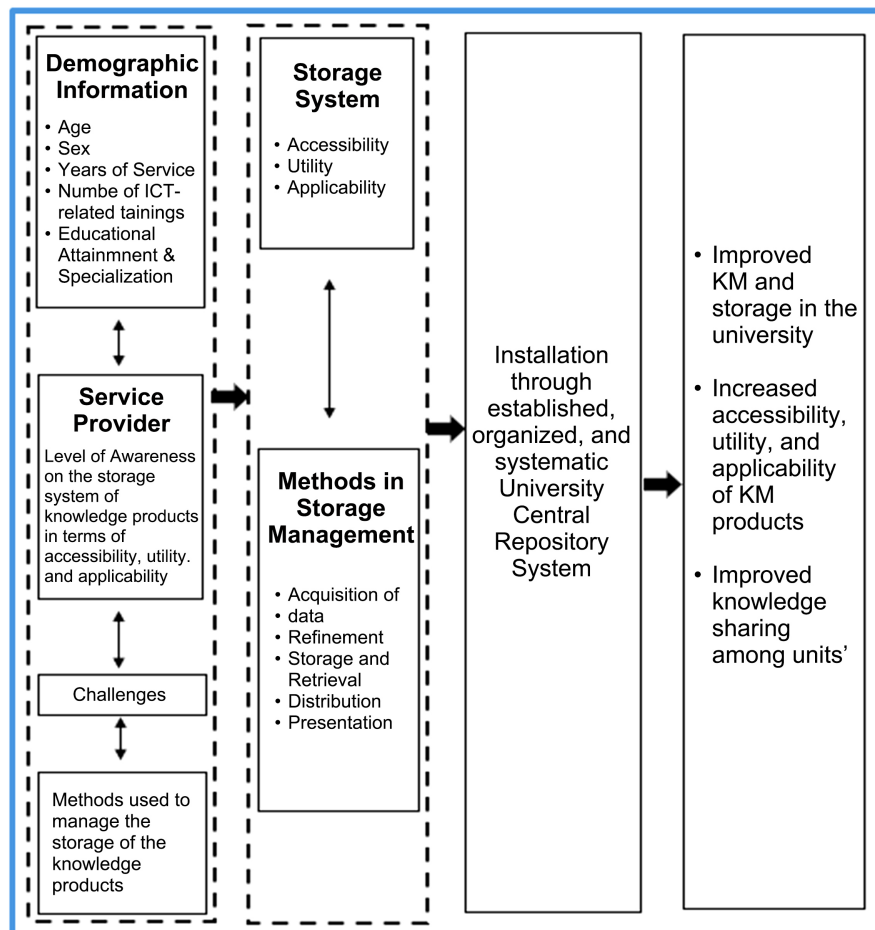


Figure 1. Research paradigm.

Using *descriptive research design* allowed the researcher to gather quantitative data through *surveys* to describe and analyze the current state of knowledge management and information sharing in the university. The survey questionnaire was focused on measuring the level of awareness within the university. The data collected provided detailed information on the current situation and identified factors potentially affecting the implementation of the repository system.

The framework shown in **Figure 1** (see above) is based on the Zack Model of KM. It facilitates the assessment, establishment, and management of a CRS to improve knowledge sharing and collaboration. Understanding user needs and current limitations is crucial for effective knowledge acquisition and repository design. The framework was influenced by the Zack Model's five stages, namely, 1) acquisition 2) refinement 3) storage/retrieval 4) distribution, and 5) presentation/use to evaluate MMSUs knowledge management practices. The framework ensures the installation through an established, organized, and systematic university CRS that aligns with existing methods that effectively address identified challenges.

3.2. Population and Sampling

Individuals responsible for managing and maintaining university records across various departments were chosen through *purposive sampling*, comprising 75 record focal persons. The selection criteria of respondents were focused on individuals with record experience of at least one (1) year of service in the university. This ensured that the respondents possessed specialized knowledge and skills in record-keeping, making them important contributors to the implementation and success of the CRS. University academic departments, administrative offices, the registrar's office, and libraries were further identified as respondents.

Applying the sampling method, the demographic profile revealed a relatively young workforce, with an age distribution of 27 - 31 years old. The high percentage were those with bachelor's degrees which indicates a qualified workforce. On the other hand, the distribution of years of experience suggests the need for training. The positive output is that a significant number have attended ICT-related training contributing to the implementation and operation of a CRS.

Individuals responsible for managing and maintaining university records across various departments were chosen through purposive sampling, comprising 75 record focal persons. The selection criteria were focused on individuals with at least one year of service in the university to ensure relevant experience. The survey was distributed to all relevant offices, including academic departments, administrative offices, the registrar's office, and libraries, to achieve a broad representation of perspectives. A 100% response rate was achieved, indicating high engagement and interest in the survey.

By distributing the survey to all relevant offices, the study aimed to minimize potential bias and ensure a comprehensive understanding of the current state of knowledge management practices within the university.

3.3. Data Gathering Instrument

To guarantee the protection of the respondents, after receiving approval of the research proposal from the University Research Ethics Review Board (URERB), the researcher started collecting data, and data gathering was forwarded to the Office of the President, Vice President for Academic Affairs (VPAA), Vice President for Research, Development and Innovation (VPRDI), Vice President for Administrative, Finance and Business (VPAFB), and Vice President for Planning & Strategic Foresight (VPPSF). The identified and selected respondents were informed of the study's goal and purpose. The survey's results were encoded, totaled, evaluated, and interpreted using *gap analysis* to produce a more structured and methodical presentation.

3.4. Interpretation and Analysis of Data

Frequency distributions, percentages, ranking, and mean were used to analyze the management of knowledge products. Frequency distributions showed how many respondents selected each response. Percentages were then calculated to show the proportion of respondents using each method. Ranking was employed to help identify the most common (or least common) challenges and limitations respondents encountered in accessing, utilizing, and applying the knowledge management system. The mean was calculated to determine the average level of agreement for each perceived benefit. Results were interpreted using the *Likert Scale*, 1) 3.50 - 4.00 Extremely Agree (EA) 2) 2.40 - 3.49 Moderately Agree (MA) 3) 1.50 - 2.49 Slightly Agree (SA) 4) 1.0 - 1.49 Disagree (D).

The anticipated outputs of the study were 1) MMSU employees lack awareness and utilization of knowledge, management systems, and practices. 2) A well-designed CRS will enhance the accessibility and usefulness of institutional knowledge. 3) Using CRS will lead to increased collaboration and knowledge sharing among the various units, resulting in a systematic record system.

3.5. Theoretical Framework

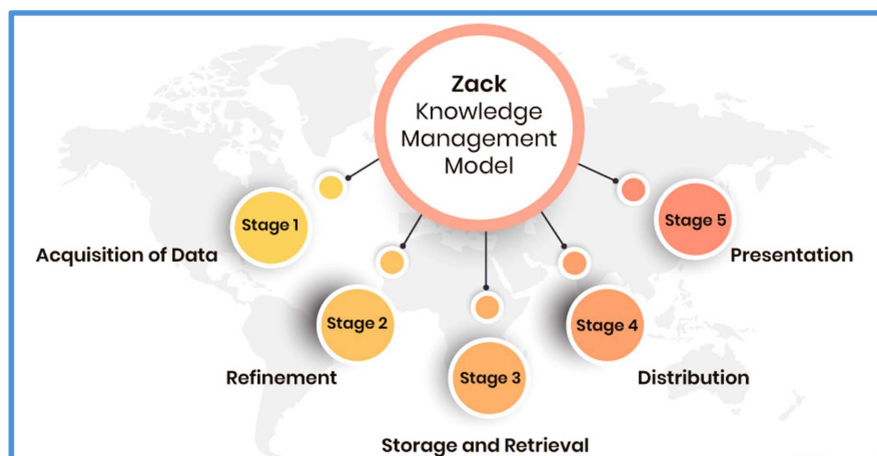


Figure 2. Meyer and Zack knowledge management model (Source: Patel, 2023) [12].

As shown in **Figure 2**, the Zack Model, emphasizes knowledge sharing and suggests applying the principles to the five-stage cycle, namely, acquisition, refinement, storage and retrieval, distribution, and presentation (Evans *et al.*, 2014; Bryson, 2017) [11].

In stage 1, acquisition involves creating or capturing new information through research, experimentation, or documentation. Ensuring the accuracy and reliability of this information is crucial, which may involve source verification, bias checks, and data validity.

Stage 2 includes editing, fact-checking, and data analysis to guarantee accuracy, completeness, and relevance. Challenges here involve managing large datasets, identifying patterns, and synthesizing information from various sources.

Stage 3 involves saving the refined information in a centralized repository system like databases, archives, or file systems for future use. This system should ensure data security, privacy, and accessibility for authorized users within the regulations to manage information effectively.

Stage 4 involves sharing data securely and storing information with users through email, intranet, or cloud platforms. Data sharing agreements, ownership, and integration pose challenges in this stage.

Stage 5 involves delivering information in a user-friendly format, like visualizations or reports. This stage can be challenging when communicating complex information to non-experts or ensuring accessibility for users with diverse needs.

4. Statistical Findings

4.1. Accessibility

Table 1 shows the level of awareness of the respondents on Microsoft Office 365 in terms of accessibility. There are 4% (3) unaware of Microsoft Office 365. These employees require foundational training. The 9% (7) who heard about it but have not used it have some basic awareness. However, they lack practical experience. The largest group with 45% (34) likely have a basic understanding but may not be using all the features effectively or lack an in-depth knowledge of the features.

Table 1. Employees' level of awareness in terms of accessibility (n = 75).

Accessibility	f	%	DI
[1] I am unaware of the existence of the Microsoft Office 365	3	4%	NA
[2] I have heard about the Microsoft Office 365 but have not accessed it	7	9%	SA
[3] I use the Microsoft Office 365 occasionally when needed	34	45%	MA
[4] I use the Microsoft Office 365 frequently and find it easily accessible	31	41%	EA

Legend: Rating Scale: Descriptive Interpretation (DI); 4: Extremely Aware (EA); 3: Moderately Aware (MA); 2: Slightly Aware (SA); 1: Not Aware (NA).

4.2. Utility

Table 2 shows that most respondents understand the value of Microsoft Office 365. A small portion of employees, 5% (4) are unaware of its usefulness while many employees, 32% (24) have heard about it and recognize its potential benefits. 31% (23) consider Microsoft Office 365 a valuable work tool.

Table 2. Employees' level of awareness in terms of utility (n = 75).

Utility	f	%	DI
[1] I am unaware of the usefulness of the Microsoft Office 365	4	5%	NA
[2] I have heard that the Microsoft Office 365 has some useful information	24	32%	SA
[3] I regularly find useful information on the Microsoft Office 365	24	32%	MA
[4] I consider the Microsoft Office 365 an indispensable resource for my work	23	31%	EA

Legend: Rating Scale: Descriptive Interpretation (DI); 4: Extremely Aware (EA); 3: Moderately Aware (MA); 2: Slightly Aware (SA); 1: Not Aware (NA).

On this ground, the university can implement strategies to promote wider use such as the utilization of various channels like emails, website announcements, and even physical displays (tarpaulins) to raise awareness. These findings are aligned with the research by Zhang *et al.* (2013) [13] who found a link between awareness and usage of institutional repositories. Similarly, Singeh *et al.* (2013) [14] emphasized the importance of awareness for faculty self-archiving.

4.3. Applicability

Applicability is necessary for developing strategies to maximize the benefits of Microsoft 365 platform. The data in **Table 3** shows a positive trend where over a third (35% or 25 respondents) frequently use the platform, indicating a good understanding of its functionalities. This means that when employees grasp the platform's capabilities, it can significantly improve their work applicability.

Furthermore, around 25% (19) of respondents have a vague understanding of how the platform applies to their work, and 4% (3) are entirely unaware. This highlights the need for targeted initiatives to raise awareness and demonstrate real-world applications. This result is in consonant with Adedimeji and Adekoya's (2019) [15] findings, that most researchers were aware of the concept of institutional repositories (IRs) but lacked knowledge of using them. However, Dutta and Paul (2014) [16] found a different scenario. Despite interest in contributing to university IRs, many scholars had little awareness of them. This indicates that awareness alone might not be enough to drive usage.

Table 3. Employees' level of awareness in terms of applicability (n = 75).

Applicability	f	%	DI
[1] I am unaware of how the Microsoft Office 365 content applies to my work	3	4%	NA
[2] I have a vague understanding of how some content on the Microsoft Office 365 might be applicable	19	25%	SA
[3] I frequently incorporate Microsoft Office 365 content into my work	26	35%	MA
[4] The Microsoft Office 365 significantly enhances the applicability of my work in the state university	27	36%	EA

Legend: Rating Scale: Descriptive Interpretation (DI); 4: Extremely Aware (EA); 3: Moderately Aware (MA); 2: Slightly Aware (SA); 1: Not Aware (NA).

Effective data acquisition is important for populating the repository with accurate, up-to-date, and well-structured information. The current data acquisition practices within the university in preparation for establishing a CRS are presented below.

4.4. Data Acquisition

Figure 3 (refer below) shows a positive trend in some areas and highlights the need for improvement in others. A significant majority (87%) already utilize standardized data collection methods. However, 13% lack consistency, potentially leading to issues like outdated or incompatible data. Ninety-two percent 92% prioritize obtaining data from dependable sources. The development of clear guidelines and deadlines for data updates guarantees ongoing accuracy of uploaded information. While 87% update data regularly, 13% do not. The knowledge management unit, in collaboration with university management, can leverage existing good practices by establishing clear guidelines and deadlines for data updates across all units. A positive aspect is that most respondents (85%) already collect data in a structured format. This simplifies integration into the repository system.

4.5. Data Refinement

Figure 4 (see below) shows how the university currently refines information before it is stored in a CRS. A significant majority (79%) of respondents already have processes in place for cleaning and validating data. This shows a strong university-wide commitment to data integrity. A positive indicator is that 77% of respondents have designated personnel responsible for data quality assurance within their units. This proactive approach helps ensure accurate information. There are 69% of respondents remove outdated and irrelevant data from their current storage systems. This is significant evidence of the commitment to maintaining up-to-date information in the repository.

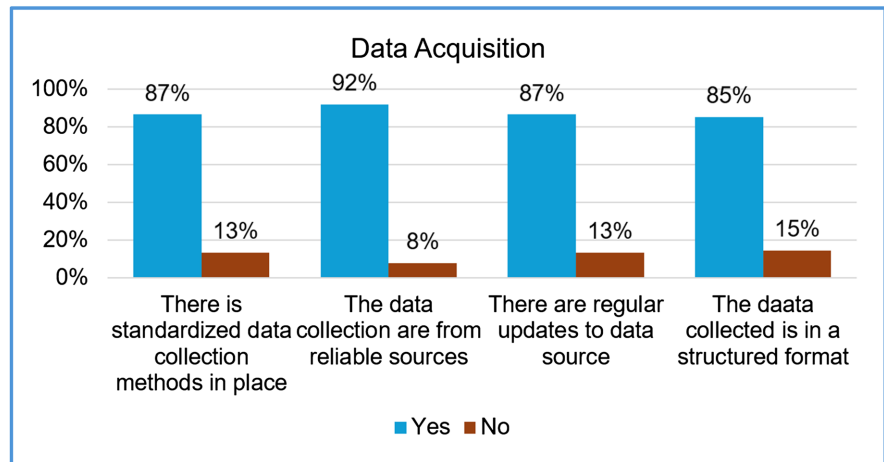


Figure 3. Data acquisition.

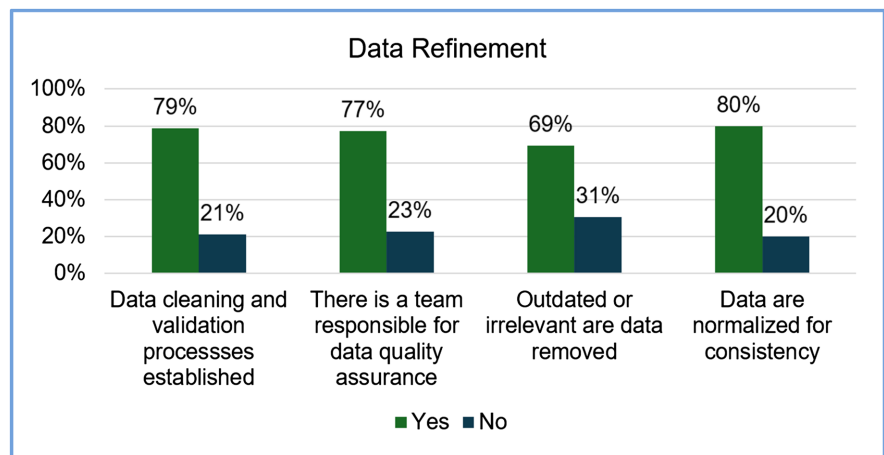


Figure 4. Data refinement.

4.6. Storage and Retrieval

Figure 5 (see below) shows the current information stores and retrieves knowledge products. Results show a strong foundation, since most units (81%) already have storage systems, providing a solid base for the central repository. The university can develop a migration plan for the remaining 19%. A positive indicator is that 76% of units prioritize data security with access controls. Well-documented retrieval procedures are in place for 75% of units. The knowledge management unit can assist the remaining 25% to ensure a consistent user experience. It is revealed that 80% of units utilize in-search functionality within their current systems. This familiarity will translate well to the central repository's search features.

4.7. Distribution of Data

The results in Figure 6 (see below) show effective distribution practices for ensuring that valuable information reaches those who need it. A significant majority (80%) of respondents already share knowledge products with stakeholders. Positively, 76% of units have policies in place for knowledge sharing, and a similar

proportion (77%) utilize controlled distribution mechanisms. These findings suggest that the university has a well-established culture of knowledge dissemination, which will be further enhanced by the CRS. By housing knowledge products in a central location, the central repository will make knowledge products more visible to a wider audience within and outside the university. Moreover, users can easily access relevant information from a single location, improving overall accessibility.

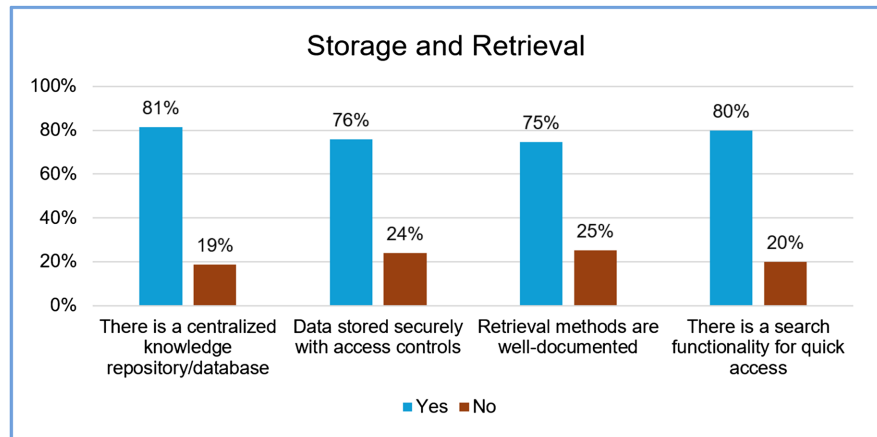


Figure 5. Storage and retrieval.

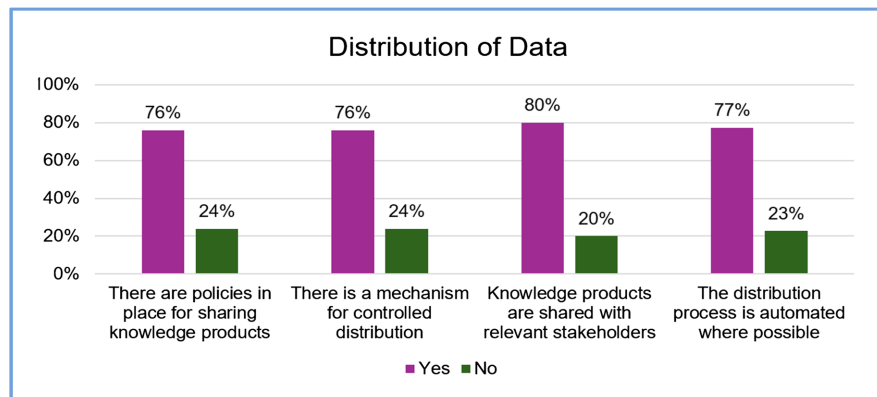


Figure 6. Distribution of data.

4.8. Presentation of Data

In **Figure 7** (see next page), knowledge products are presented within the university. Effective presentation practices are essential for ensuring information is well-organized and engaging for users. The data shows that a significant majority (76% - 77%) of respondents already utilize effective presentation practices like templates, guidelines, and visual aids. This ensures that their knowledge products are clear and well-organized. Moreover, the university demonstrates a culture of continuous improvement where a substantial portion (68%) of respondents already utilize feedback mechanisms to improve presentations.

Identifying the challenges is necessary for ensuring a smooth user experience and successful adoption of the CRS. The succeeding figures show the challenges

encountered by the employees in terms of the knowledge portal's accessibility, utility, and applicability.

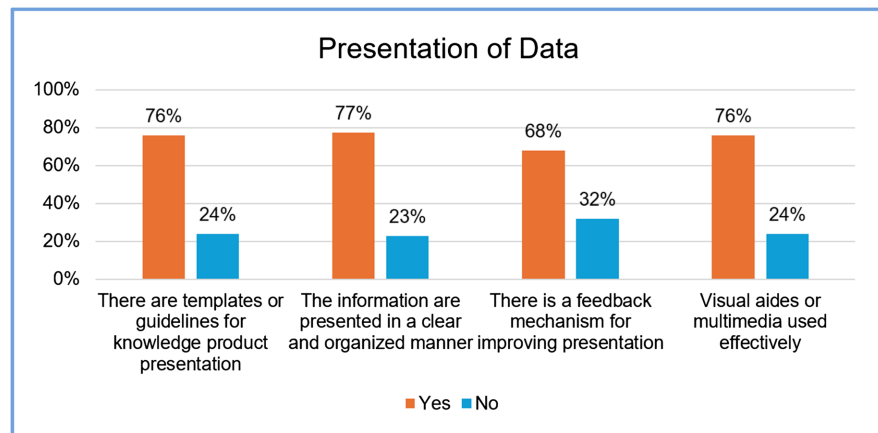


Figure 7. Presentation of data.

4.9. Knowledge Portal Accessibility

Based on the findings shown in **Figure 8** (see below), 88% of respondents already have access to Microsoft Office 365. This provides a strong foundation for the CRS, as basic login skills are likely to translate to navigating the repository. However, a small percentage (7%) cannot access their accounts, and another 5% are unaware of them. A significant portion (39%) access their accounts without problems, and over half (56%) encounter log-in or authentication issues. Moreover, a large majority (81%) demonstrate comfort and familiarity across different devices. This bodes well for user adoption. The majority (53%) find Microsoft Office 365 functions well.

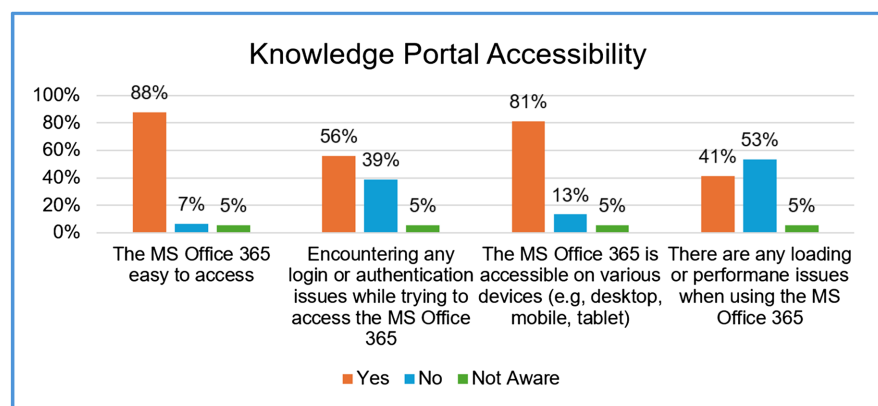


Figure 8. Knowledge portal accessibility.

To address these challenges and improve access for all employees, the university should establish dedicated IT support, provide comprehensive training and awareness programs, streamline account management processes, and enhance system accessibility.

4.10. Knowledge Portal Utility

Figure 9 (see next page) is a result of how well-equipped employees are to utilize Microsoft Office. A significant majority (91%) find that the platform provides relevant and up-to-date information. This bodes well for the central repository system, as record keepers are likely to see it as a reliable source of knowledge products. A large portion (77%) can easily find needed information due to existing search functionalities and a well-organized information architecture. While nearly half (49%) navigate search without difficulty, 45% encounter challenges. This does not necessarily mean that they cannot find information at all. Additionally, a large majority (83%) of employees have experience with Microsoft Office 365's tools and features. This existing comfort level with the platform suggests a positive foundation for user adoption of the CRS.

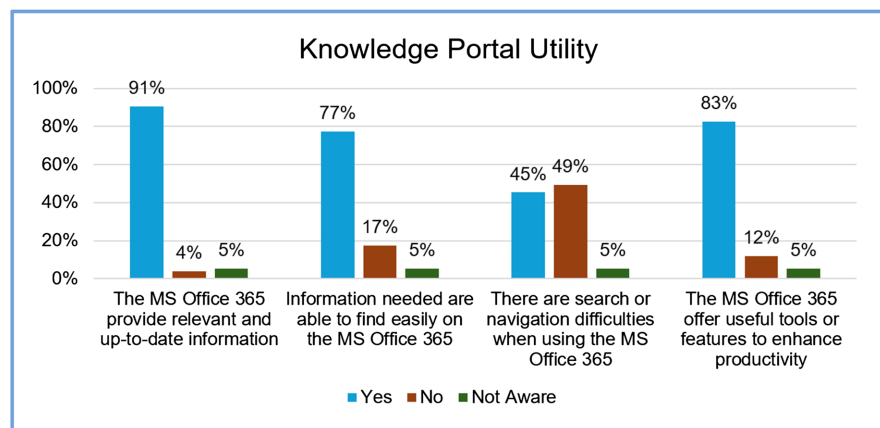


Figure 9. Knowledge portal utility.

4.11. Knowledge Portal Applicability

Figure 10 (provided below) shows how well Microsoft Office 365 aligns with the workflows of record keepers within the university where a large majority (83%) perceive Microsoft Office 365 as a valuable platform. This suggests record keepers are likely to find the CRS (built on the same platform) a natural extension of their existing workflow. The training status of record keepers reveals positive aspects since the majority (71%) have already received training. The remaining 24% who have not received training should be prioritized to ensure they can effectively manage knowledge products in the repository system.

Moreover, the data in **Table 4** (see next page) reveals a generally positive view of the CRS, with users acknowledging its potential to address challenges and improve workflows. The most frequent answer was the records keepers (56% or 25) extremely agree that they can easily access information in the repository system and moderately agree that the system is user-friendly and intuitive. Sixty percent 60% (27) of the respondents moderately agree that the repository system meets the specific needs of different departments or teams. Forty-nine percent 49% (22) of the respondents moderately agree that the MS One Drive effectively organizes

and stores relevant information. They can find information quickly and allow for secured and controlled access to sensitive data. This can help in version control and document management and provide adequate training and support for using the CRS.

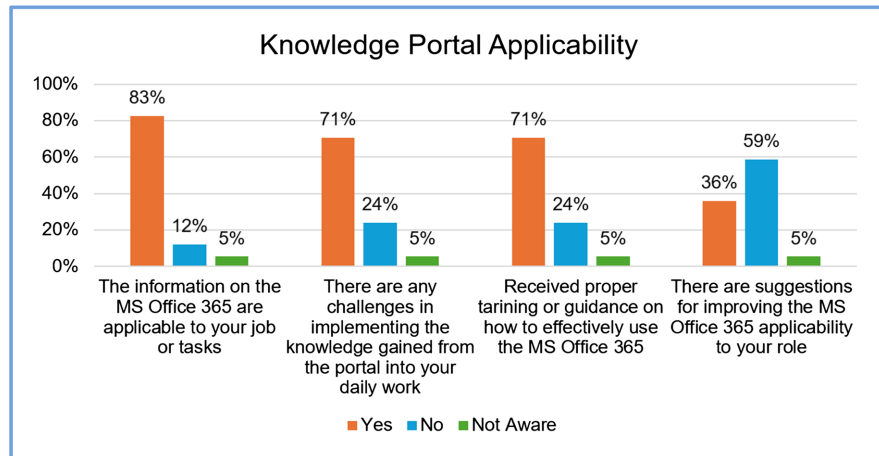


Figure 10. Knowledge portal applicability.

Table 4. Level of agreement (n = 45).

Questions	D	SA	MA	EA
The central repository system effectively organizes and stores relevant information.	0% (0)	2% (1)	47% (21)	51% (23)
It is easy to access information in the central repository system.	0% (0)	7% (3)	38% (17)	56% (25)
The central repository system helps me find information quickly.	0% (0)	2% (1)	49% (22)	49% (22)
The system allows for secure and controlled access to sensitive data.	0% (0)	7% (3)	40% (18)	53% (24)
I receive adequate training and support for using the central repository system.	2% (1)	16% (7)	51% (23)	31% (14)
The system is user-friendly and intuitive.	0% (0)	2% (1)	56% (25)	42% (19)
The central repository system has features that facilitate collaboration among employees.	0% (0)	9% (4)	42% (19)	49% (22)
The system helps in version control and document management.	0% (0)	4% (2)	49% (22)	47% (21)
The central repository system meets the specific needs of different departments or teams.	2% (1)	0% (0)	60% (27)	38% (17)
The system allows for feedback and improvements based on employee input.	2% (1)	13% (6)	51% (23)	33% (15)

Legend: Range of Scale: Descriptive Interpretation (DI); 4: Extremely Agree (EA); 3: Moderately Agree (MA); 2: Slightly Agree (SA); 1: Disagree (D).

Table 5 (see below) shows the average rating on how satisfied the respondents were with the CRS in addressing its challenges is 3.0, *Moderately Agree*. This means that the findings show a positive picture since it holds the potential to streamline workflows. This will ultimately lead to a well-organized, secure, and collaborative knowledge management system that benefits research, instruction, and administration across the university.

Table 5. Overall mean (n = 45).

Questions	\bar{x}	DI
Overall, how satisfied are you with the central repository system in addressing your challenges as an employee?	3.0	MA

Legend: Range of Means: Descriptive Interpretation (DI); 3.50 - 4.00: Extremely Agree (EA); 2.50 - 3.49: Moderately Agree (MA); 1.50 - 2.49: Slightly Agree (SA); 1.00 - 1.49: Disagree (D).

5. Conclusions

The study reveals a strong foundation for successful implementation, supported by users' recognition of the value of Microsoft Office 365, reinforced by the existing knowledge management practices, and a supportive organizational culture. Therefore, to effectively address the university's knowledge management needs, it is highly recommended the establishment of a CRS built on Microsoft Office 365.

However, the potential barriers to the implementation such as initial investment costs, resistance to change, and technical challenges associated with system integration and maintenance must be considered for resolution. To mitigate these challenges, the university must develop a comprehensive implementation plan, provide adequate training and support, and establish a dedicated IT support team.

Further, the study provided compelling validation as a model for the successful implementation of a CRS built on Microsoft Office 365 with a strong foundation in user awareness, existing best practices, and a culture of knowledge sharing. The proposed system has a convincing course to significantly improve knowledge management streamlining processes and supporting core functions across the university's educational essential structure.

Recommendations

Integrating *SharePoint's* functionalities holds promise for further optimizing CRS. It is hereby recommended for the evaluation of the implementation of Microsoft SharePoint built within Office 365. *SharePoint* offers advanced features specifically designed for knowledge management and document collaboration. Benefits include pre-built templates for organizing knowledge products, enhanced search capabilities, robust version control and workflow management, and a user-friendly interface.

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Conflicts of Interest

The authors declare no conflicts of interest.

References

- [1] Yao Lartey, P., Shi, J., Jaladi Santosh, R., Owusu Afriyie, S., Akolgo Gumah, I., Hussein, M., *et al.* (2022) Importance of Organizational Tacit Knowledge: Barriers to Knowledge Sharing. In: Mohiuddin, M., Al Azad, Md.S. and Ahmed, S., Eds., *Recent Advances in Knowledge Management*, IntechOpen. <https://doi.org/10.5772/intechopen.101997>
- [2] Almehrzi, M. (2021) Cloud Computing Based in Knowledge Management in Higher Education Institutions: Benefit and Risks. In: Arai, K., Ed., *Lecture Notes in Networks and Systems*, Springer International Publishing, 636-650. https://doi.org/10.1007/978-3-030-89912-7_49
- [3] Aluvalu, R. and Muddana, L. (2015) A Survey on Access Control Models in Cloud Computing. In: Satapathy, S., Govardhan, A., Raju, K. and Mandal, J., Eds., *Advances in Intelligent Systems and Computing*, Springer International Publishing, 653-664. https://doi.org/10.1007/978-3-319-13728-5_73
- [4] Digby, T. (2021). Factors Influencing the Adoption of Institutional Repository Systems by Academic and Research Library Leadership. https://digitalcommons.hamline.edu/hse_all/4537
- [5] Lang, L., & Pirani, J. A. (2014). Adapting the Established SIS to Meet Higher Education's Increasingly Dynamic Needs. EDUCAUSE: ECAR Research Bulletin. <https://library.educause.edu/-/media/files/library/2014/9/erb1411-pdf.pdf>
- [6] Wong, K. Y., & Radcliffe, J. (2019). Knowledge Management and Libraries: A Review of the Literature. *The Library Quarterly: Information, Community, Policy*, **89**, 228-254.
- [7] Robinson, S., & Amsler, S. (2024, April 17). Knowledge Management (KM). Content Management. <https://www.techtarget.com/searchcontentmanagement/definition/knowledge-management-KM>
- [8] Abubakar, A.M., Elrehail, H., Alatailat, M.A. and Elçi, A. (2019) Knowledge Management, Decision-Making Style and Organizational Performance. *Journal of Innovation & Knowledge*, **4**, 104-114. <https://doi.org/10.1016/j.jik.2017.07.003>
- [9] Hussin, N., & Mohamad, S. R. (2021). The Usage of Microsoft OneDrive among the Professional College Staff. *Journal of Information and Knowledge Management (JIKM)*, **11**, 84-94. <https://jikk.uitm.edu.my/pdf/1117.pdf>
- [10] Pola, B. A. U. (2024) SWOT Quantitative Analysis of PGIS Environment Code 16-

- 07A: A Transformative Advancement for Climate Action. *OALib*, **11**, e11056. <https://doi.org/10.4236/oalib.1111056>
- [11] Evans, M., Dalkir, K., & Bidian, C. (2014). A Holistic View of the Knowledge life Cycle: The Knowledge Management Cycle (KMC) Model. *Electronic Journal of Knowledge Management*, **12**, 85-97. <https://academic-publishing.org/index.php/ejkm/article/view/1015>
- [12] Dalkir, K. (2005) Knowledge Management in Theory and Practice. Routledge. <https://doi.org/10.4324/9780080547367>
- [13] Zhang, T., Maron, D.J. and Charles, C.C. (2013) Usability Evaluation of a Research Repository and Collaboration Web Site. *Journal of Web Librarianship*, **7**, 58-82. <https://doi.org/10.1080/19322909.2013.739041>
- [14] Singeh, F.W., Abrizah, A. and Karim, N.H.A. (2012) What Inhibits Authors to Self-Archive in Open Access Repositories? A Malaysian Case. *Information Development*, **29**, 24-35. <https://doi.org/10.1177/0266666912450450>
- [15] Cho, S.Y., Happa, J. and Creese, S. (2020) Capturing Tacit Knowledge in Security Operation Centers. *IEEE Access*, **8**, 42021-42041. <https://doi.org/10.1109/access.2020.2976076>
- [16] Dutta, G. and Paul, D. (2014) Awareness on Institutional Repositories-Related Issues by Faculty of University of Calcutta. *DESIDOC Journal of Library & Information Technology*, **34**, 293-297. <https://doi.org/10.14429/djlit.34.5138>