

Enhancing Academic Support: A Qualitative Study on Library Service Expectations among Agriculture Postgraduates at UPM

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ABSTRACT

The rapid advancement in the field of agriculture, driven by technological development, research, and innovation, necessitates that postgraduate students have access to comprehensive, up-to-date, and high-quality information resources. In this context, the library plays a crucial role as a provider of relevant and effective scholarly information to support the academic and research needs of this group. This study aims to explore the expectations of postgraduate students in the field of agriculture at University Putra Malaysia (UPM) towards the effectiveness of library services, focusing on three main components: subscribed databases, Information Literacy, and Institutional Repository. This study adopts a qualitative approach through focus group discussions (FGD) conducted both online and face-to-face. Data were analyzed using NVivo software to identify key themes that reflect users' needs and expectations regarding library services. The findings of this study are expected to provide strategic insights for the library to enhance existing services, thereby supporting UPM's aspiration to be a leading institution in agricultural education and research at both national and international levels.

Keywords: Postgraduate Students; Library Services; User Expectations; Agricultural Research; Information Literacy; Institutional Repository

1 INTRODUCTION

Universiti Putra Malaysia (UPM), established in 1931, is a prominent institution renowned globally for its academic and research excellence, particularly in the field of agriculture. Although it offers programs across various disciplines, agriculture remains its core strength, encompassing areas such as crop science, livestock, veterinary medicine, forestry, and soil science. The Sultan Abdul Samad Library (PSAS) supports UPM's academic and research activities by providing access to comprehensive resources, including the Malaysian Agricultural Collection, Rare Agricultural Collection, AGRIS and MyAGRIC Portals, as well as specialized databases like CAB Direct and Vetstream. Beyond collections, PSAS offers vital academic support services, including reference consultations and information literacy classes, aimed at equipping users with the skills to locate, evaluate, and utilize scholarly resources effectively. As agricultural research continues to evolve in complexity and depth, postgraduate students increasingly rely on timely access to quality academic resources to support their theses and literature reviews. Understanding and evaluating the effectiveness of library services is, therefore, crucial in ensuring that users' academic needs are adequately met.

To assess the impact of PSAS's services, **Table 1** presents comparative data on key library usage indicators for the years 2022 and 2023. These indicators include usage statistics for subscribed databases, visits to the UPM Institutional Repository (UPM IR) and e-Theses Portal, as well as attendance in Information Literacy classes. The comparison provides a basis for analyzing trends and identifying potential areas for service enhancement.

Table 1: PSAS Service Statistics for 2022 and 2023

No.	Parameter	2022	2023
1	Number of Database Visitors	2,547,979	2,624,610
2	Attendance in Information Literacy Classes	6,640	7,417
3	Number of Visitors to the UPM IR Portal	218,461	187,352
4	Number of Visitors to the e-Theses Portal	22,017	23,954

(Source: Sultan Abdul Samad Library, 2024)

This study specifically focuses on three core services provided by PSAS: subscribed database access, information literacy instruction, and the UPM publishing platforms (UPM IR and e-Theses). It seeks to explore postgraduate students' expectations and assess the extent to which these services meet their research and academic needs. By understanding user behavior and feedback, PSAS can formulate and implement strategic improvements to remain relevant, effective, and competitive in an increasingly digital academic environment. Ultimately, an effective academic library not only supports institutional goals but also contributes to the cultivation of a knowledgeable, research-oriented society.

2 LITERATURE REVIEW

In this era of advanced digital technology, information management and knowledge dissemination play a vital role in ensuring the effectiveness and success of Higher Education Institutions. As one

of the leading institutions, UPM has integrated various technologies and approaches to strengthen its information management ecosystem. This paper discusses relevant theories and prior studies related to user experience and the use of subscribed databases and institutional repositories. It also examines students' perceptions of Information Literacy Classes and the challenges they encounter in utilizing these library services.

2.1 User Engagement and Experience in Using Subscribed Databases

Njogu (2016) conducted a study at the Faculty of Agriculture, University of Nairobi, focusing on awareness and usage of CAB Abstracts and CABI Compendia. The study found that the majority of users were only familiar with one to five electronic resources subscribed to by the library. Most of them were unaware that CAB Abstracts and CABI Compendia were available to them. The findings also revealed that most postgraduate students learned about electronic resources through library assistants, while academic staff cited workshops and exhibitions as their main sources of information. Undergraduate students, on the other hand, reported obtaining information from the library website. This study highlights the crucial role of library staff in promoting electronic resources. Additionally, awareness efforts through workshops, exhibitions, and the library website should be strengthened to broaden users' knowledge of the available information sources.

In terms of preferred databases, Sadu (2021) reported that 82.3% of researchers at Sri Venkateswara University favored ScienceDirect over other databases. This popularity is attributed to its extensive and high-quality journal collection, advanced and user-friendly search features, and the credibility of its articles, which support rigorous research. Furthermore, ScienceDirect is internationally recognized, making it a primary source of scholarly information for both local and international researchers across various disciplines.

2.2 User Experiences in Information Literacy Class

User education programs in libraries are essential to ensure that students can fully utilize the resources provided. According to a study by Onyeke (2023) conducted at the University of Jos, user education programs have a significant impact on students' library usage. These programs not only help students understand how to use the library effectively but also raise their awareness of the library's role as a vital source of information. With such programs in place, students are better prepared to take advantage of the facilities and services offered by the library.

Wadasinghe and Dilhani (2023), in their study at the Postgraduate Institute of Medicine (PGIM) Library, found that postgraduate students held positive perceptions of the user education programs provided by the library. The study also revealed that these programs had a significant positive effect on the use of library resources and the academic performance of postgraduate students. After participating in the program, there was an increase in both the frequency and manner of library use. Students were more inclined to utilize a variety of available information sources, including electronic journals, books, and databases, to support their studies and research. With improved information-seeking skills, students were able to access more relevant and high-quality information for their academic assignments and research, thereby enhancing the quality of their academic work and contributing to better academic performance.

Overall, these studies indicate that respondents acknowledged the importance of user education programs. However, when encountering difficulties in information retrieval, many students were still more likely to rely on search engines such as Google or seek help from their peers. This highlights the need to improve the relevance and effectiveness of such programs to better support users in overcoming information-seeking challenges. A more interactive and collaborative approach may be required, with a stronger emphasis on technology use and peer collaboration (Zhang, 2020).

2.3 Utilization and Challenges of Institutional Repositories

According to Jayakananthan and Jeyaraj (2023), although most academic staff are aware of the existence of institutional repositories (IRs), many do not fully understand what an IR is, its primary purpose, or the types of content it contains. Most academic staff obtained information about IRs through the library and their colleagues.

In a study conducted by Asadi (2019), it was found that many academic staff members were unaware of the existence or benefits of IRs. This lack of awareness prevents them from fully utilizing the platform to disseminate their research output. Limited knowledge on how to access, use, and deposit materials into the IR contributes to the low usage rates among academic staff. In addition to insufficient knowledge, inadequate information and communication technology (ICT) infrastructure pose a major challenge in the development of IRs. A well-developed ICT infrastructure is fundamental to the successful implementation and maintenance of IRs. Without sufficient technological support, it becomes difficult to manage and sustain an effective repository.

These studies indicate that while there is some level of awareness about IRs, significant challenges remain in ensuring their effective use. Students generally demonstrate a positive attitude and high levels of engagement with IRs, and they are willing to contribute their academic materials. In contrast, academic staff face challenges related to their understanding and knowledge of IRs, along with limitations in ICT infrastructure. Therefore, it is essential to enhance awareness and understanding of IRs through education and training programs, while simultaneously strengthening ICT infrastructure to support the broader and more effective development and use of institutional repositories.

3 METHODOLOGY

This study employed the focus group discussion method to collect qualitative data. Focus group discussions were chosen because they allow researchers to gain insights from multiple individuals in an interactive setting. This method facilitates participant interaction and enables them to respond to one another's views, which can lead to more in-depth discussions. The study utilized focus group discussions to gather information and feedback from three specific target groups, as outlined in **Table 2**.

Table 2: Focus group participants

Group	Informants Criteria's	Number of Informants	Date of Interview
Group 1 (Subscribed Online Database)	a. Postgraduate students in the field of agriculture b. Students who frequently use subscribed databases c. Students who have attended Information Skills Classes	5	13 th June 2024
Group 2 (Information Literacy Class)	a. Postgraduate students in the field of agriculture b. Students who have attended Information Skills Classes	5	13 th June 2024

Group 3 (UPM Institutional Repository and e-Theses)	a. Postgraduate students in the field of agriculture who are expected to complete their studies in less than a year b. Students who frequently use the UPM IR/ETheses portal to support their thesis writing c. Students with experience and at least one research publication (journal/book/book chapter) during their studies d. Students who have attended Information Skills Classes	5	26 th June 2024 and 28 th June 2024
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Researchers were provided with all necessary materials to facilitate smooth data collection. These materials included the interview protocol, supplementary attachments to prompt responses from informants who might not be aware of or remember the topics discussed (e.g., the list of UPM subscribed databases), and templates for transcribing the results of the focus group discussion. All this information was uploaded to a shared Google Drive folder accessible to the researchers at any time.

Data collection through focus group discussion was conducted over four sessions: two on 13th June 2024, one on 26th June 2024, and one on 28th June 2024, involving a total of 15 informants from UPM Serdang Campus and Bintulu Campus. The data obtained from focus group interviews were analyzed using NVivo software, which facilitated a structured qualitative data analysis process. The main stages involved in the data analysis included data transcription, data organization, coding, and thematic development.

4 RESULTS AND DISCUSSION

This section presents a summary of the focus group participants' responses concerning the three main components of library services, subscribed databases, Information Literacy, and Institutional Repository.

4.1 Subscribed Databases

4.1.1 Database Preferences and the Predominance of ScienceDirect

Informants in this study reported using a variety of scholarly databases to support their research, including ProQuest, Scopus, SpringerLink, Wiley Online Library, and ScienceDirect. This variety reflects the multidisciplinary nature of academic research and highlights the importance of providing access to a broad range of sources to meet diverse information needs. The selection of these databases demonstrates users' awareness of different platforms and their relevance to specific subject areas, particularly in the agricultural and scientific domains.

Among the databases mentioned, ScienceDirect emerged as the most preferred platform among researchers. This finding is consistent with Sadu (2021), who found that more than 80% of researchers identified ScienceDirect as their primary choice for accessing academic literature. The popularity of ScienceDirect may be attributed to several key features: its wide coverage of peer-reviewed journals in science, technology, and medicine; a user-friendly interface; and powerful search functionalities that allow users to filter and retrieve relevant articles efficiently.

The preference for ScienceDirect suggests that access to comprehensive and high-quality content is a priority for postgraduate researchers. It also indicates that user satisfaction is closely tied to both the depth of available content and the ease of navigating the database. These insights point to the need for continuous evaluation of database subscriptions by academic libraries, ensuring that preferred platforms like ScienceDirect remain accessible while also promoting awareness of other potentially valuable but underutilized databases. Training sessions and information literacy efforts may also benefit from focusing on advanced search techniques within these popular databases to maximize their usage and impact on research productivity.

4.1.2 Underutilization of Specialized Agricultural Databases

While general academic databases such as ScienceDirect and Scopus are widely used, the study revealed a notable underutilization of specialized databases like CAB Abstracts and the CABI Compendia, despite their relevance to agricultural research. Informants acknowledged limited familiarity and usage of these subject-specific resources, which are designed to offer in-depth coverage of agriculture, animal science, forestry, and related disciplines. This is concerning, given the niche focus of postgraduate research in agriculture, where access to highly curated and discipline-specific content is essential.

This trend aligns with findings by Njogu (2016), who reported that many library users were unaware of specialized databases available to them. Njogu found that the majority of users were familiar with only a small number of subscribed electronic resources and did not realize that platforms like CABI were part of the library's holdings. Such a gap in awareness highlights a systemic issue in communication and user training, suggesting that while subscriptions are in place, their impact is limited without proactive outreach and instructional support from the library.

Moreover, this behavior reflects a broader user preference for databases that are multidisciplinary, user-friendly, and perceived as more intuitive. Joo and Choi (2015) similarly observed that students are more likely to engage with online library resources that offer wide topic coverage and up-to-date content. Therefore, to maximize the use of specialized databases such as CABI, libraries need to embed them more strategically into information literacy programs, subject-specific training sessions, and course curricula. Addressing this gap not only ensures optimal use of subscription investments but also enhances the quality and relevance of research conducted in agriculture and related fields.

4.2 Information Literacy Class

4.2.1 Enhancing Learning Flexibility through Recorded Sessions

All informants consistently highlighted the importance of providing recorded sessions for classes and workshops as a means of supporting students who face various constraints. These include limited availability due to conflicting schedules, unreliable internet connectivity, or difficulties in fully grasping content during live instruction. By offering recorded content, libraries and academic support units can address such challenges and provide more equitable access to learning opportunities. Recorded sessions enable students to revisit complex material at their own pace, allowing for reflection, clarification, and deeper understanding. This is especially beneficial for postgraduate students who often balance research responsibilities, teaching duties, and personal commitments. The opportunity to pause, rewind, and replay instructional content makes the learning experience more flexible and personalized, supporting diverse learning preferences and cognitive processing speeds.

Empirical evidence reinforces the value of this approach. A study by Voelkel (2023) reported that 74% of students in medical education found that access to recorded lectures significantly enhanced their learning. These students cited the ability to learn at their own pace and to review material for better retention and comprehension as key benefits. Recorded sessions also support reinforcement of concepts, fill learning gaps, and serve as a valuable revision tool before assessments. Furthermore, in the context of information literacy instruction or database training provided by libraries, recorded sessions can extend the reach of services to students who are unable to attend live workshops. This approach also helps mitigate the issue of resource constraints, as a single recorded session can serve a wide audience repeatedly without additional staffing. Therefore, integrating recorded instructional content into library service delivery not only meets student expectations but also aligns with inclusive and student-centered learning practices. As higher education continues to embrace digital transformation, providing on-demand access to learning materials emerges as a key component of responsive and effective academic support.

4.2.2 Expanding Outreach through Multi-Channel Promotion

Informants consistently emphasized the importance of diversifying promotional strategies for Information Literacy classes to increase student participation and awareness. Traditional approaches such as announcements via email or postings on the library's website were seen as limited in reach and effectiveness, particularly among digital-native students who tend to engage with faster, more interactive communication platforms. To address this, informants strongly advocated for the integration of various digital platforms in outreach efforts. Social media channels, such as Facebook and Instagram, along with the library's official website, were identified as effective tools to disseminate information and updates in real time. These platforms allow for the use of visually engaging content (e.g., infographics, short videos, stories), which can significantly increase the visibility and attractiveness of Information Literacy classes.

In particular, messaging apps like WhatsApp were singled out as especially promising due to their widespread use among university students. Several informants proposed the creation of dedicated WhatsApp groups or broadcast lists specifically for library announcements and Information Literacy class promotions. They acknowledged that students are more responsive to updates received through platforms they use daily, as opposed to official emails which may be overlooked or deprioritized. This recommendation aligns with broader trends in academic library communication strategies. Studies have shown that leveraging social media and instant messaging applications enhances student engagement and fosters a more interactive relationship between libraries and their users (Chu & Du, 2013). These platforms enable two-way communication, allowing students not only to receive information but also to ask questions or provide feedback in real time.

Moreover, adopting a multi-channel communication strategy allows libraries to segment and tailor messages according to different user groups, such as undergraduate students, postgraduates, or international students. This level of personalization increases the likelihood of engagement and ensures that promotional efforts are aligned with users' preferences and behaviors. In sum, the use of diverse, student-friendly platforms in promoting Information Literacy classes reflects a shift towards user-centered communication. By meeting students where they are on the platforms they already use libraries can enhance the visibility, accessibility, and perceived relevance of their educational services.

4.2.3 Peer Engagement and Communication Strategies

Additionally, the informants suggested the appointment of student representatives as a strategic approach to enhance the dissemination of library-related information. These representatives would serve as intermediaries between the library and the student community, playing an active

role in promoting awareness of available services, workshops, and resources. This approach is particularly effective within the context of peer-supported learning, where students are more likely to engage with and respond to information conveyed by their peers. The use of peer networks in disseminating academic support services is supported by various studies, which indicate that information delivered through informal, peer-led channels tends to be perceived as more relatable and trustworthy (Boud, Cohen, & Sampson, 2014). This method not only fosters a sense of community and shared responsibility but also helps reduce barriers such as lack of awareness or hesitation to engage with formal support services.

Furthermore, involving student representatives in the communication process may contribute to a more dynamic feedback loop between users and the library. These representatives can also relay students' concerns, preferences, and suggestions directly to library staff, thereby enabling continuous service improvement based on actual user needs. This recommendation reflects a broader trend in higher education toward participatory engagement models, where students are not merely recipients of services but active contributors to the learning ecosystem. In the context of information literacy and research support, peer advocacy can amplify the visibility and perceived value of library services, particularly among new or less confident students who may be reluctant to seek help directly from librarians. Thus, the incorporation of student representatives into the library's communication and outreach strategy aligns well with both pedagogical theory and practical efforts to enhance user engagement and service effectiveness.

4.3 Institutional Repositories

4.3.1 Usability Challenges and Preferences in Portal Usage

The study found notable variation in the frequency and perception of portal usage among informants, particularly with respect to the UPM e-Theses Portal. While some informants expressed confidence in using the portal for accessing student theses, others preferred relying on broader, well-established academic search platforms like Scopus. This preference appeared to stem from perceptions of ease of use, efficiency, and familiarity. The inclination to bypass the institutional portal in favor of multidisciplinary databases suggests that usability and interface design play a critical role in determining user engagement with digital repositories.

This observation is consistent with existing literature on institutional repository systems. Kalimashe (2023) reported that postgraduate students, despite being aware of institutional repositories, often encounter significant usability barriers. Specifically, DSpace-based IR systems are frequently criticized for their lack of intuitive navigation, limited filtering capabilities, and inability to refine search results effectively. These shortcomings lead to user frustration, irrelevant search returns, and a general lack of trust in the system's ability to deliver useful results—prompting users to seek alternatives that offer a more seamless experience.

In response to these challenges, informants in the present study suggested targeted improvements to the portal's search functionality. Proposed enhancements included the integration of advanced search filters, metadata-driven facets (such as by faculty, year, or research type), and more streamlined navigation tools. Such improvements are anticipated to enhance the portal's usability, making it easier for users to locate relevant academic documents and reducing dependence on external databases for university-produced content. Improving the e-Theses Portal in these ways would not only support better user experiences but also increase the visibility and usage of institutional research outputs.

5 CONCLUSION

The findings highlight the importance of library services in supporting postgraduate students' research and learning activities, particularly in agricultural studies at UPM. Key services such as subscribed databases, Information Skills Classes, and institutional repositories are essential; however, challenges remain in areas like portal search functionality and the promotion of services to part-time and distance-learning students. It can be concluded that while these services significantly contribute to academic success, there is still room for improvement in system usability and outreach efforts to ensure that all students can effectively access and utilize the resources available. Addressing these challenges will enhance the overall research experience for postgraduate students.

Limitations of the current work include a focus on a specific group of students, indicating the need for broader studies across different faculties and institutions to gain a more comprehensive understanding. Future research should involve larger, more diverse samples and incorporate quantitative methods to better measure usage patterns and perceptions. Additionally, a deeper investigation into students' awareness and knowledge of specialized databases like CABI would be valuable for improving service promotion and access. Comparative studies of database integration systems at other universities could offer useful insights for improving UPM's OpenAthens system, especially in enhancing off-campus access and search capabilities. Quantitative studies assessing the impact of access difficulties on research quality would further inform service development. Finally, evaluating the effects of implemented improvements on user experience will be crucial to understanding their effectiveness and impact on supporting postgraduate research. These insights will contribute to strengthening library services and fostering greater academic excellence at UPM.

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