Students' Awareness and Use of the Online Public Access Catalog (OPAC) at the Central Luzon State University Library in the Philippines

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Abstract

The online public access catalog (OPAC) is a digital portal to the library's collection that allows users to search, locate, and access a wide range of academic resources. One of its key functions is to make books and other library materials easily accessible and retrievable. The main purpose of this study was to assess students' awareness and use of the OPAC in the Central Luzon State University Library. The data were gathered using a survey questionnaire. The frequency, percentage, and weighted mean were analyzed, and the data was interpreted. The findings show that students widely use OPAC, though not all of them are aware of all of the functions that OPAC provides. Findings also indicate that a lack of proper orientation and a lack of OPAC terminals are the main reasons for not using the OPAC. The vast majority of students were satisfied with the OPAC. However, a small percentage of students remain dissatisfied with it. This insight is essential for libraries to better alter and tailor their systems, services, and instructional programs to suit their student population's evolving needs and technological expectations.

Keywords: Online Public Access Catalog, OPAC, Students, Central Luzon State University Library, Philippines.

Introduction

In an ever-changing digital context, universities worldwide are modifying their libraries to embrace technological innovations and improve the learning environment for their students. Library automation is an innovative technique that assists libraries and library users in better-utilizing library resources. Card catalogs, typewriters, and manually given due dates were previously standard features in all sorts of libraries. Similarly, library clients used card catalogs to locate library materials.

One significant stride in this direction has been introducing the Online Public Access Catalog (OPAC), a digital platform that revolutionizes how students and faculty interact with their academic libraries. It is a digital portal to the library's collection, allowing users to search, locate, and access various academic resources. The OPAC's bibliographic display is an electronic version of the card catalog (Mi & Weng, 2008). It is expected that as technology

advances in the library, user expectations and behavior will change. Coyle and Hillmann (2007) emphasized, "Today's library users have a different set of information skills from those of just a few decades ago." Information and communication technology (ICT) has influenced library services in developed countries as most libraries are automated (Fati & Adetimirin, 2015).

Although the concept of an OPAC has been around for decades and is widely used in first-world countries, Central Luzon State University (CLSU) University Library began using it in 2009 when the library purchased Follet Library Automation Software, which includes an OPAC module that can be accessed via local area network. CLSU's journey into library automation demonstrates a proactive response to technology's transformative possibilities, even if it transpired later than some institutions. Its adoption of the OPAC is an important step toward modernizing library services, improving accessibility, and enriching the academic environment for its community. While technology integration may require significant time and necessitate adaptation, CLSU is dedicated to a progressive and ongoing endeavor to enhance its library technology following contemporary norms. Undoubtedly, although the OPAC has been in operation for a considerable duration, it has been noted that a significant proportion of library patrons opt to approach the library section directly to inquire about the accessibility of desired materials rather than initially browsing the OPAC. In addition, it is anticipated that those seeking information can utilize OPAC before physically accessing the library's sections to get resources. In the context of emerging technologies, evaluating the extent of individuals' utilization of these services, their alignment with users' requirements, the level of satisfaction derived from their usage, and the challenges encountered during their implementation is imperative. This assessment enables the identification of suitable measures to optimize their use. The researcher explores how students interact with the OPAC in this study, intending to establish their level of awareness, the extent of use, and the areas where support and instructional interventions can be most helpful. The findings of this study hope to shed light on the extent to which students are familiar with the OPAC's functions and features. Understanding students' knowledge and usage patterns enables libraries to develop educational campaigns and training programs. These programs can help students improve their information literacy abilities and use the OPAC effectively for academic research and coursework. Furthermore, as the CLSU University Library modernizes library services, the findings of this study will undoubtedly contribute to a strategic roadmap that will steer the institution toward a technologically enhanced future in information access and retrieval.

Research Questions

This study attempted to answer the following questions:

- What is students' awareness of OPAC in the University Library?
- How do students locate information in the library?
- What are the reasons for not using the OPAC?
- How often do students use the OPAC?
- How much time does it take to display a search result?
- Were students satisfied with the functions of the library's OPAC Module?
- What are the purposes of using the OPAC?
- How does library staff support the students in information-seeking problems?

Literature Review

This section contains the findings of previous research conducted by librarians and educators. The research clarified and supported major elements included in the study, provided the conceptual underpinning for the current investigation, and aided in discussing the findings.

OPAC Awareness

The Online Public Access Catalog (OPAC) is vital for retrieving information about library items worldwide. According to Aju's (2020) research, some university libraries in Nasarawa State observed significant awareness among undergraduate students regarding the Online Public Access Catalog. Nevertheless, their dissatisfaction with the utilization of OPAC resulted in a restriction of its usage. The study uncovered other characteristics influencing the use of the Online Public Access Catalog (OPAC). These factors include the absence of a library guide to explain how to use the OPAC, unstable power supply, library staff not being friendly, network/server problems, and lack of computer systems. The study by Fabunmi and Asubiojo (2013) yielded results indicating that many students relied on manual catalogs to access library resources. This preference was attributed to a lack of awareness and skills to use OPAC and problems encountered during its usage.

Consequently, the students encountered difficulties utilizing the Online Public Access Catalog (OPAC) with optimal effectiveness and efficiency. A separate investigation conducted within engineering college libraries in India revealed that the primary limitations hindering the utilization of Online Public Access Catalogs (OPACs) were a deficiency in user community awareness and an insufficiency of library-installed system terminals (Mulla & Chandrashekara, 2009). A study conducted by Ansari (2008) showed that many patrons of five academic libraries in New Delhi utilize the Online Public Access Catalog (OPAC) as their primary search tool for accessing various resources. Based on his research findings, it was observed that most users independently managed the Online Public Access Catalog (OPAC) system. It may be inferred from this information that individuals utilizing those above five academic libraries have completed the training programs offered by said libraries. These training programs provide users with the necessary skills to independently navigate and utilize the Online Public Access Catalog (OPAC) without needing assistance from library personnel.

OPAC Utilization

The exploitation of the Online Public Access Catalog (OPAC) entails the exploration and utilization of its various aspects to optimize the services it offers. With more and more users using different devices, such as personal computers, iPads, and smartphones, they can access OPAC (online public access catalog) services and other digital library services in different contexts. This leads to the phenomenon that users' behavior can be transferred to different devices, which leads to the richness and diversity of user behavior data in digital libraries (Liang & Wu, 2019). The research conducted by Jiang, Chi and Gao (2017) showed that users predominantly depended on the single-box primary search interface, exhibited little engagement in the exploratory search process, and preferred page navigation over search refinement when interacting with search results. The OPAC was used as a lookup tool to locate known academic resources and as a personal information management tool to utilize essential library services instead of as a discovery tool as intended.

According to Vijayakumar and Manasa (2018), most users preferred going directly to

OPAC to explore the resources before going to the shelves. They viewed the catalog as time-saving, as they felt it took them less time to find books using OPAC. The study further revealed that most students need periodic orientation by library staff to use OPAC. This finding contradicts the earlier research conducted by Msagati (2016), which showed that a significant proportion of the respondents (85.65%) physically browsed through library shelves to access instructional materials. Several challenges were highlighted as hindrances to the successful use of OPAC, including limited availability of computers with internet access, insufficient searching skills, low bandwidth, and frequent power outages. According to Velmurugan and Amudha (2012), 57.38% of respondents searched directly off the shelves. 75.55 percent of respondents used the OPAC to check the number of copies of the required document in the stack and whether the document(s) was or were available in the library. Yusuf and Iwu's (2010) study showed that 61.9% of students use OPAC to access library materials. They attributed this positive development to the result of compulsory orientation programs organized by the library for the first-year students of Covenant University, Ota, Nigeria. Upon implementing the online public access catalog, Devi Ahilya University's library study found that while the tool was deemed valuable, respondents expressed a desire for assistance accessing the necessary papers. Rajput, Naidu and Jadon (2008) discuss the topic of "Utilization and Satisfaction of Users Regarding OPAC" and also present the recommendations put forth by the user community for enhancing the system. The investigation conducted by Adedibu (2008) at the University of Ilorin examines the utilization of catalogs among science students. In the 2004/2005 academic session, a survey was conducted by distributing a questionnaire to a randomly selected sample of 500 users. Most respondents (90.1%) reported utilizing the library catalog as their primary means of accessing the library's collection. Furthermore, most participants (74%) indicated proficiency in navigating the traditional card catalogs and the Online Public Access Catalog (OPAC).

In their study, Kumar and Vohra (2011) investigated how users at Guru Nanak Dev University Library in Amritsar used the Online Public Access Catalogue (Punjab). The article primarily examines various dimensions of the Online Public Access Catalog (OPAC), encompassing awareness, utilization frequency, commonly accessed points, satisfaction levels, and more. Despite specific issues, most users use the OPAC to locate documents. Nonetheless, a significant proportion of users express dissatisfaction with the OPAC. According to the study, users should be familiar with the use and operation of the OPAC through special training.

Information technology has played a critical and constructive role in modernizing information services. Another finding revealed that OPAC significantly aided users in finding their information quickly. Devendra and Nikam (2013) examined the attitudes of two law university library users in Andhra Pradesh toward using OPAC/Web OPAC. The study's findings revealed that 50% of respondents used OPAC/Web OPAC, and 41.8% stated that their OPAC/Web OPAC was not guided by the library's OPAC/Web OPAC. The analysis discovered that respondents have positive attitudes toward using OPAC/Web OPAC services and facilities. Kumar and Mahajan (2015) evaluated the OPAC system's use and implementation in public libraries in Chandigarh, India. The study's findings revealed a lack of computer competency and understanding among users and insufficient guidance and participation from library personnel. The study also revealed that, while a considerable majority of users are satisfied with the OPAC and its associated services, there is a lack of awareness about the complete spectrum of services provided by the OPAC.

Materials and Methods

This section presents the method and research design used by the researcher during the study.

Conceptual Framework

The researcher was inspired by an IPO model, which guided her in developing this study. Figure 1 depicts how the researcher illustrated the pattern of ideas discussed in the study to achieve the desired outcomes. The input included socio-demographic factors, OPAC awareness, and use by patrons. By conducting a questionnaire survey, this process evaluates the level of awareness and usage of OPAC. The assessment results will be the foundation for addressing OPAC use and information-seeking issues.
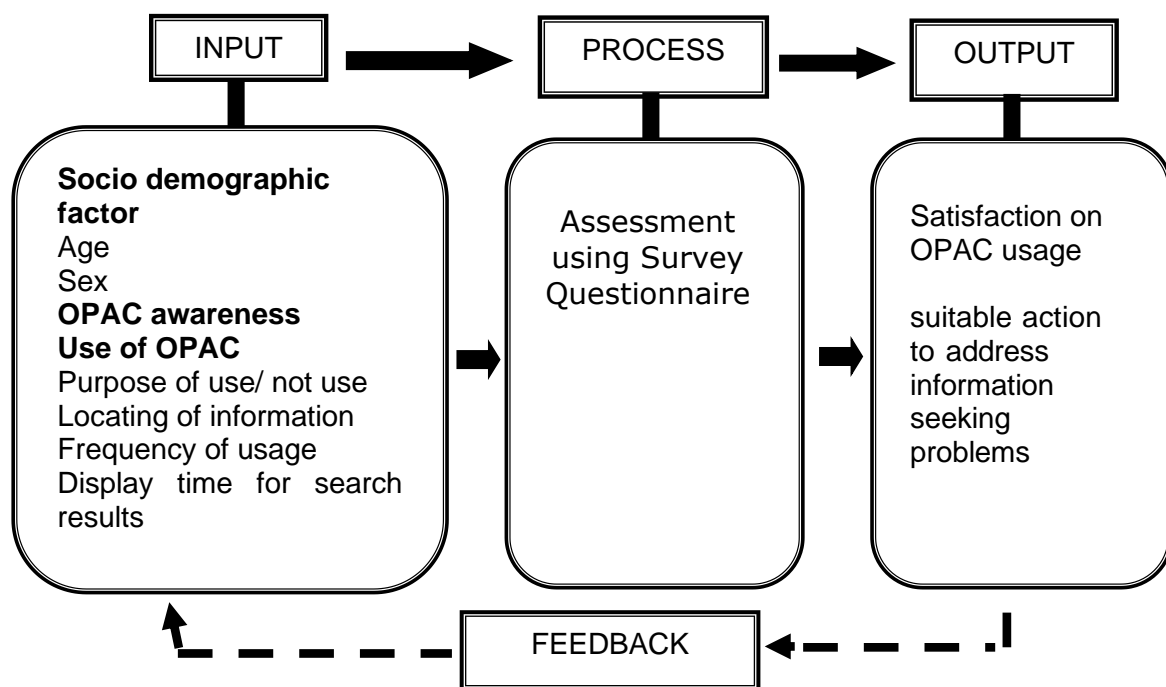
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Socio demographic factor
Age
Sex
OPAC awareness
Use of OPAC
Purpose of use/ not use
Locating of information
Frequency of usage
Display time for search results

Assessment using Survey Questionnaire

Satisfaction on OPAC usage

suitable action to address information seeking problems

FEEDBACK

Figure 1: *Conceptual Paradigm of the Study*

Data gathering procedure and statistical tools

The study gathered data through a survey questionnaire. This was patterned after previous studies but modified to suit the needs and purpose of the present study. It was composed of items that needed to bring out pertinent answers to the specific queries stated. Demographic information of the respondents, level of awareness about OPAC, frequency of use, average hours taken to display search information, purposes of using or not using the OPAC, and suitable measures to address the students' information-seeking problems were collected. During the first semester of the 2016–2017 academic year, 100 regular university library patrons were given a questionnaire. Twenty copies of the questionnaire were distributed daily to clients of the library's Reference Section, Science and Technology Section, Humanities Section, Serials Section, Filipiniana Section, and Reading Area. The request for immediate completion and return of the research instrument to the section in charge was met by 89 respondents. The results were tallied and tabulated using a Microsoft Excel spreadsheet after the questionnaire was

collected from the respondents.

The descriptive research method was used in this study. The data analysis used the frequency (f) and percentage (%) to describe the respondents' demographic data, their ability to locate information in the library, their reasons for using or not using OPAC, their frequency of use, the amount of time it took to display the search results, and the actions the staff would take in response to information seeking issues. A weighted average was employed to comprehend and evaluate the information obtained from the participants regarding their familiarity with the OPAC functions. These were rated on a five-point scale as follows: 1-Not all aware; 2-Slightly aware; 3-Somewhat aware; 4-Moderately aware; 5-Extremely aware. Rating scale: 4.20 - 5.00 = Extremely aware; 3.40 - 4.19 = Moderately aware; 2.60 - 3.39 = Somewhat aware; 1.80 - 2.59 = Slightly aware; 1.00 - 1.79 = Not all aware.

Results

The findings will be addressed methodically based on their occurrence in the problem statement. Table 1 shows the distribution of OPAC users' socio-demographic factors, such as sex and age. The majority of respondents (55.06%) were female, with the remaining percentage being male. Most of those who responded were between the ages of 16 and 20. The oldest user respondent was between 36 and 40 and was enrolled in a graduate program.

Table 1
Distribution of socio-demographic factors of OPAC users

Sex	Frequency	%
Male	40	44.94%
Female	49	55.06%
Total	89	100.00%
Age	Frequency	%
16-20	82	92.13%
21-25	5	5.62%
26-30	1	1.12%
31-35	0	0.00%
36-40	1	1.12%
Total	89	100.00%

Table 2 shows the level of awareness of OPAC functions. Most respondents were "extremely aware" that OPAC provides easy access to library holdings and a database for library holdings, which got a weighted mean of 4.51 and 4.48, respectively. Other functions of OPAC were interpreted as "moderately aware" by the respondents. The lowest weighted mean of 3.35 was interpreted as "somewhat aware" that the OPAC can also check the amount of overdue fines.

Table 2
Level of awareness of users on OPAC functions

	Weighted Mean	Verbal Interpretation
OPAC is a database of the library collection	4.48	Extremely Aware
OPAC can be used to determine the status of library materials	4.23	Moderately Aware
OPAC can be used a platform to request library materials	3.71	Moderately Aware
OPAC can be used to reserve library materials	3.6	Moderately Aware
OPAC can be used to check due dates for library materials borrowed	3.77	Moderately Aware
OPAC can be used to verify outstanding fines for overdue materials	3.35	Somewhat Aware
OPAC enables users to check account information	3.83	Moderately Aware
OPAC enables users to see the history of the borrowed materials	3.57	Moderately Aware
OPAC provides ease of access to library holdings.	4.51	Extremely Aware

Legend: Extremely Aware=5.00-4.5, Moderately Aware=4.49-3.50, Somewhat Aware=3.49-2.50, Slightly Aware=2.49-1.50, Not All Aware=1.49-0

According to the data presented in Table 3, it is evident that 29.21% of the participants selected the OPAC as their preferred means for accessing information on books and other reading materials, while 23.60% consulted library staff, and 20.22% of them directly browsed books. The University Library is no longer updating the card catalog since an OPAC exists. Despite this, a small percentage (11.23%) of respondents still use the card catalog. 5.7% answered "others" but did not specify the process of locating materials.

Table 3
Means of locating information in the library

	Frequency	%
Using OPAC	26	29.21%
Browsing book(s)/journals on the shelves	18	20.22%
Consulting library staff	21	23.60%
Using card catalog	10	11.23%
Asking for help from a friend(s)	16	17.98
Others	5	5.70%

The study also examined the factors contributing to the respondents' reasons for not using OPAC services. Table 4 reveals that 28.09% of respondents have encountered issues due to a lack of appropriate orientation. A significant proportion (24.72%) of the participants expressed disinterest in the study due to the shortage of OPAC terminals and the poor functionality of the OPAC system. Another reason was that respondents (15.73%) said they did not know how to use the OPAC, and 14.61% said they were unaware of the OPAC services.

Table 4
Reasons for not using the OPAC

	Frequency	%
Shortage of OPAC terminals	22	24.72%
Lack of appropriate orientation	25	28.09%
Poor OPAC functionality	18	20.22%
Unaware of the OPAC services	13	14.61%
Do not know how to use OPAC	14	15.73%
Others	0	0.00%

Table 5 shows the frequency of OPAC usage. Results indicated that most respondents (29.21%) use the OPAC weekly. However, findings also show that 24.72% of the respondents never use the OPAC.

Table 5
Frequency on the use of OPAC

	Daily	Weekly	2XMonthly	Monthly	Never
Frequency	6	26	16	19	22
%	6.74%	29.21%	17.98%	21.35%	24.72%

According to Table 6, 41.57% of respondents said the results are displayed for zero to two minutes. Only 12.36% of respondents took longer (7-8 minutes) to get the search information display results.

Table 6
Response time (minutes) for displaying results

	0-2 min	3-4 min	5-6 min	7-8 min	Others
Frequency	37	29	12	11	0
%	41.57%	32.58%	13.48%	12.36%	0.00%

Table 7 displays the level of student satisfaction with the OPAC. The highest percentage (31.46%) said they were "satisfied" with using the OPAC. This is followed by 28.09% of the respondents who are "moderately satisfied." Another 26.97% were "fully satisfied," and a small portion of students (13.48%) were dissatisfied with using the OPAC.

Table 7
Satisfaction with the Library OPAC module

	Fully satisfied	Satisfied	Moderately satisfied	Dissatisfied	Very dissatisfied
Frequency	24	28	25	12	0
%	26.97%	31.46%	28.09%	13.48%	0.00%

Table 8 reveals that most respondents (44.94%) used the OPAC to locate books in the library, followed by (22.47%) to determine whether the required book was available. The lowest

percentage of those who use the OPAC to reserve a book is 5.62 %.

Table 8

Purposes in using the OPAC

	Frequency	%
To locate the book in the library	40	44.94%
To search non-print materials	9	10.11%
To check the availability of required books	20	22.47%
To check if there are newly added library materials	6	6.74%
To reserve the book that other users borrow	5	5.62%
To check the number of copies in library stock	6	6.74%
To find references on a particular subject	19	21.35%
Others	0	0.00%

Table 9 shows that a high percentage of students (39.33%) needed library staff assistance when using the OPAC. This was followed by 25.84 % of the respondents needing library user instruction/orientation. The lowest percentage is 10.11%, which responded that more OPAC stations must be provided.

Table 9

Support needed in information-seeking problems

	Frequency	%
Assistance for OPAC search	35	39.33%
Locating physical resources from the shelf	22	24.72%
Reference services	17	19.10%
Library user's instruction/orientation	23	25.84%
Provision of more OPAC stations	9	10.11%
Others	0	0.00%

Discussion

Gaining insight into the use and awareness of the Online Public Access Catalog (OPAC) among students provides valuable data about their knowledge of the technology, levels of satisfaction, and encountered difficulties. Most students are "extremely aware" of OPAC services, similar to Aju's (2020) study, although not all students are familiar with the functions OPAC provides. The study also reveals that most respondents used the OPAC to find information sources in the library and explore the resources before going to the shelves (Vijayakumar & Manasa, 2018). However, the results show that a greater proportion depends on library staff. This result is evident because all library personnel have experienced students inquiring about the availability and location of resources despite OPAC stations throughout the library, including the foyer. This provides insights into the gap between general knowledge and expertise in utilizing OPAC services. Students may possess a basic understanding of the fundamental operations of OPAC, but they may lack proficiency in effectively using all the available features and functionalities it provides. It differs from the phenomenon that users' behavior can be transferred to different devices, which leads to the richness of user's behavior data in digital libraries (Liang & Wu, 2019). Certain students may have a predilection for

engaging with library workers in person, as they perceive this mode of interaction to be more comfortable and dependable than utilizing digital systems. Individualized support can offer comfort and guidance. Most of the reasons for the non-utilization of the OPAC pertain to insufficient familiarization with its functionalities and the limited availability of OPAC terminals (Kumar & Mahajan, 2015). This implies that students possess a limited understanding of the utilization of OPAC and may encounter difficulties in effectively conducting searches and accessing pertinent resources within the library's holdings. The inclusion of additional OPAC terminals would enhance students' engagement in the process of searching for library resources.

The limited availability of OPAC terminals restricts students' access to the catalog, thus hampers their ability to locate relevant materials (Aju, 2020). The lack of available OPAC terminals may lead to student frustration and disengagement. Individuals may experience a loss of motivation to utilize the library's resources, which may lead them to abstain from using the OPAC altogether. In addition, a lack of acquaintance with the various components of an OPAC could lead to insufficient use of the available resources inside a library. Most students going to the library use the OPAC every week.

However, findings also show that 22% of the respondents never used the OPAC. Students affirmed that they do not know how to use the OPAC. Insufficient searching skills and limited knowledge of library technologies may additionally contribute to the underutilization of the Online Public Access Catalog (OPAC) (Msagati, 2016; Kaur & Kathuria, 2015). Insufficient comprehension of the catalog among students may impede their ability to cultivate the essential aptitude for proficiently navigating and critically evaluating information resources. Regarding the display of results, it has been observed that results are displayed instantly.

However, information retrieval took a minute to display results for many documents on a search term in the catalog database. This suggests that users would spend time and become frustrated since they may overlook essential materials for their scholarly work. Most students expressed satisfaction with OPAC usage. Nevertheless, a minority of students remain dissatisfied with the OPAC. Given that a significant proportion of participants deliberately utilized the OPAC as a means to locate books within the library (Velmurugan & Amudha, 2012). The OPAC is an indispensable tool employed by libraries to enhance the efficiency of accessing their collections and facilitate users in acquiring the required materials. Its fundamental objective is to improve the user experience by enabling efficient exploration and retrieval of the diverse range of resources available in a library (Kumar & Singh, 2017). It also frequently offers library patrons a range of features that facilitate efficient management of their library accounts. The system incorporates various functionalities, such as accessing borrowed items, placing holds on checked-out materials, reserving books for future use, determining the number of copies available in the library's inventory, and executing several other associated operations. To promote equitable access to this essential research resource, libraries should contemplate augmenting the quantity of OPAC terminals, enhancing their strategic location to facilitate accessibility, and providing additional features such as remote access to the catalog. Furthermore, offering instruction and training on how to use the OPAC properly (Ansari, 2008) and instituting reservation procedures for terminal access will help ease some of the issues created by limited availability. The present study shows that despite having instructions on how to use the OPAC, students still needed the assistance of library staff. In the case of CLSU, students may require intervention from library staff to explain all of the functions of the OPAC

and their importance in maximizing their use of all of its features.

This study provided an opportunity to emphasize the need to offer continual instruction to library users, particularly students, on utilizing the OPAC and its functionalities and their satisfaction levels and challenges. Libraries can tailor their support and educational efforts to meet the diverse needs of students. This ensures that students can fully leverage the possibilities of this online public access catalog service for academic and research purposes.

Conclusion

Assessing students' awareness and use of the Online Public Access Catalog (OPAC) is crucial for evaluating their awareness, usage, and satisfaction and identifying specific areas where assistance and instructional interventions can be most impactful in optimizing library services. This study holds significance as it can establish a connection between students' information requirements and the resources readily available within the library system. Furthermore, it emphasizes the importance of ongoing training and educational initiatives to enhance students' comprehension and competence using the OPAC. In addition, libraries must keep up with technological advancements to ensure the provision of an improved and modernized OPAC that aligns with the digital preferences of students. This includes not only increasing the OPAC's accessibility and functionality but also using upcoming technologies to create a seamless and intuitive user experience.

In essence, comprehensive knowledge of students' awareness and use of the OPAC serves as a fundamental basis for libraries to adapt, cultivate, and formulate strategies that optimize the capabilities of this technological tool within the library setting. Libraries have the potential to enhance students' ability to navigate the academic terrain with assurance through the promotion of information literacy and the implementation of user-centric design, thereby facilitating their quest for knowledge and attainment of academic success.

Acknowledgment

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