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Perception and Utilization of Single Window Search Tool for Conducting Literature Search: A Case Study

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Abstract

This paper focuses on understanding the perception and utilization of the ‘Single Window Search’ tool at the KMC Health Sciences Library of Manipal Academy of Higher Education (MAHE), Manipal, India for conducting a literature search. A structured questionnaire is distributed to the participants of the workshop conducted on a single-window search tool by the KMC Health Sciences Library to get data. The study identified that the single-window search tool is extremely helpful for the users for conducting a literature search for teaching, learning, research and patient care activities. Respondents of the study perceived that the single-window search tool helps to use the library resources effectively, saves their time in conducting a literature search and easy to search through multiple online databases/journals platforms subscribed by the library.

Keywords: *Health Sciences Library, Manipal Academy of Higher Education (MAHE), e-Resources, Users*

1. INTRODUCTION

A library is a trinity of information resources, users and library staff. Information technology has transformed traditional libraries into modern libraries. Technologies are being used in libraries for the collection, organization and dissemination of information. Libraries are spending a vast amount of money on the subscription of various electronic resources. Libraries are putting their best efforts into creating awareness on the availability of the same for access to their users. Information literacy programs are being conducted to promote the use of the resources available at the libraries. Globally, the information-seeking behavior of library users keeps on changing as technology advances. Under these circumstances, the need to get a better handle on e-resources has grown, particularly in an academic library.

2. SINGLE WINDOW SEARCH TOOL

Manipal Academy of Higher Education, Manipal, India has an excellent Health Sciences Library on its campus. The state-of-the-art library is stretching over 1.5 lakh square feet on five levels. It can accommodate 1300 users at a time.

SEARCH – The Health Sciences Library has access to plenty of e-resources, and currently, the library is subscribing to 20 online databases, 8671 online journals, and 20305 e-books.

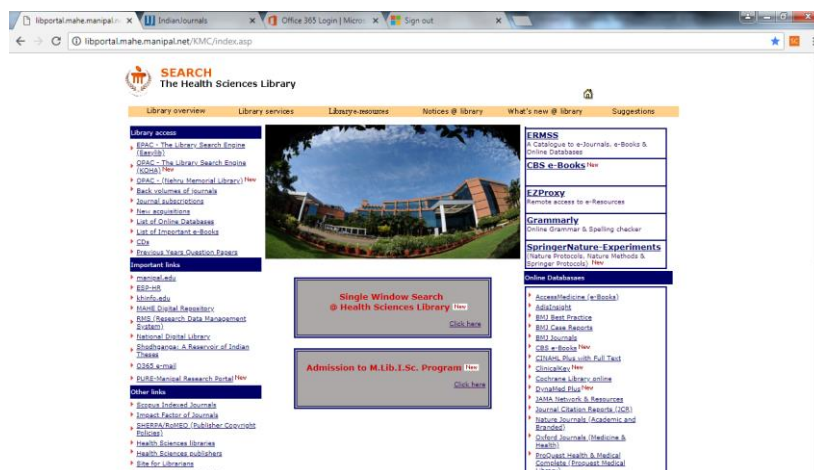
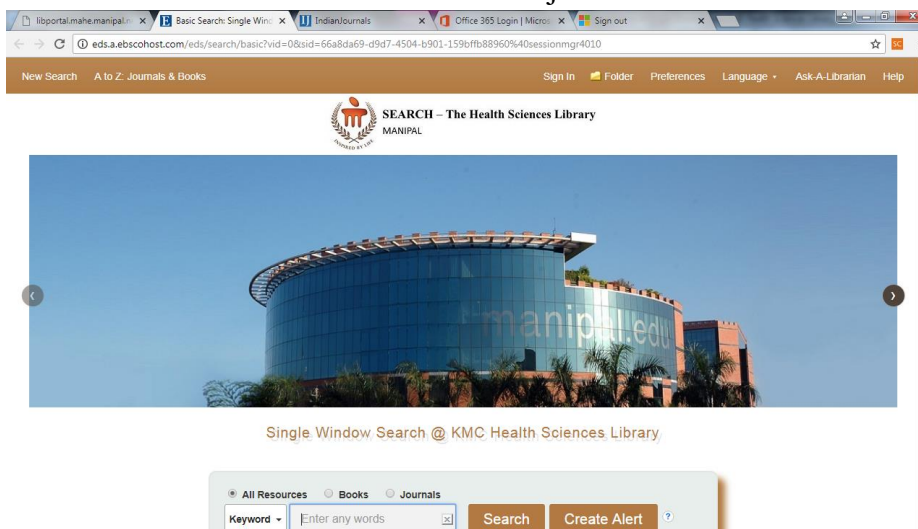


Fig. 1: Website of Health Sciences Library

As the users have to click on every subscribed e-content for a search @ ERMSS, 'Single Window Search' Service interface is the necessity of time for Health Sciences Library to discover literature across all subscribed resources (e-databases, e-journals, e-books, catalog and institutional repository) available through library subscription and beyond. The need was found to integrate all the library-subscribed e-resources and give access through a single user-friendly access point and save the time of the user by giving a Google-like search interface to search and retrieve information. Health Sciences Library initiated implementing a 'Single Window Search' Service tool to meet the users' requirement in accessing the various resources on health science subjects.



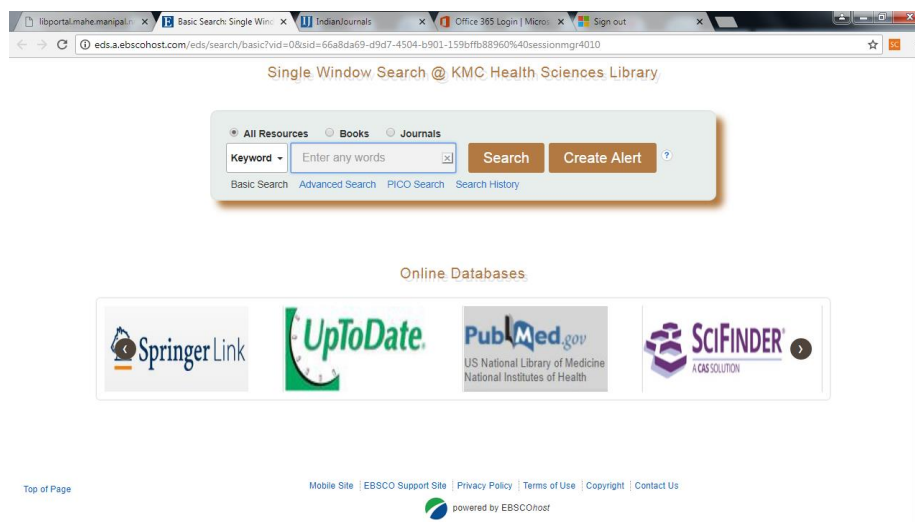


Fig. 2: 'Single Window Search' tool page @ Health Sciences Library

Presently 'Single Window Search' tool is composed of various modules, such as 'Search Box, Search across any Online Databases, New Search, A-Z: Journals & Books, Sign in, Folder, Preferences, Language, Ask-A-Librarian and Help.' 'Single Window Search' tool page provides the user to search across all e-resources by opting for Basic Search (keyword/title/author) options so that users could begin their search from the search box choosing a keyword, title, or author using the drop-down menu. It also offers an advanced search option. Users are also presented with options like A-Z listing of all e-resources (books and journals) subscribed by the Health Sciences Library.

'Single Window Search' Service tool enables users to find the literature on the topic of interest related to any health sciences subjects using keywords. It also offers the user many useful options such as limiting the searches only to library subscribed journals or e-books or only to the digital repository or combination of library subscribed content and open access or within specific years etc. The search results thus obtained could be refined as per requirement using various filtering options like 'library subscribed collection and open access 'full text,' peer-reviewed, date published, author wise, title-wise, image type, language-wise, country wise, etc. and finally, the user could access the full text of the desired article.

The focus of this paper is to understand the perception and utilization of the 'Single Window Search' tool provided at the Health Sciences Library for conducting literature searches by the users.

3. REVIEW OF LITERATURE

Dempsey (2006)¹ pointed out the change of scenario in academic libraries and the users' attitude and explained that "the print environment, access to resources was relatively proscribed by the tools available – the printed (and then the online) catalog." The environment has transitioned to where: *"Information resources are relatively abundant, and user attention is relatively scarce. Users have many resources available to them and may not spend a very long time on anyone. Many finding tools are available side by side on the network, and large consolidated resources have appeared in the form of search engines. Even within the library, there are now several finding tools available. The user is crowded*

with opportunity. No single resource is the sole focus of a user's attention. In fact, the network is now the focus of a user's attention, and the available 'collection' is a very much larger resource than the local cataloged collection. The user wishes to 'discover' and use much more than is in the local cataloged collection."

Jan Kemp (2012)² gave a detailed account of why the University of Texas implemented the Discovery service and explained in his literature the details of collection, staff and users of the library. He explains: *"One of the fastest-growing educational institutions in Texas, UTSA (the University of Texas at San Antonio, USA), enrolls over 31,000 students in 64 undergraduates, 48 masters, and 22 doctoral programs. The university began offering classes in 1970, and its goals include expansion of the graduate programs and eventual status as a Tier One university. The library maintains four facilities on three campuses: The John Peace Library on the main campus; the Downtown Campus Library; the Applied Engineering and Technology (AET) Library, a 2,200 square-foot bookless satellite library on the main campus; and the Special Collections Manuscripts Unit at the HemisFair Park Campus. The library's collection includes 1,747,000 volumes (809,644 e-books), 3.2 million microform items, 68,866 current serial titles, and 375 electronic reference sources and aggregation services. In 2010, the library spent approximately 68% of its 5.6 million dollar collections budget on e-resources. The library has a staff of 105 full-time librarians and classified staff."*

Jason Vaughan (2011)⁵ in his Library Technology Report on Web-scale discovery services, noted, "Extensive research into whether these Web-scale discovery services increase discovery and usage of publisher and aggregator content does not yet exist, though it seems reasonable to assume that if materials are more easily discoverable, they will be used more heavily and access statistics will increase."

Marshall Breeding (2010)³ in his article succinctly defined the functionality of a unified discovery tool: "a great discovery interface should operate in a mostly self-explanatory way, allowing users to concentrate on selecting and evaluating the resources returned rather than struggling through the search tools that the library provides."

In 2010, Breeding⁴ stressed "equal access to content in all forms," a concept we now take for granted. A key virtue in discovery tools, he notes, is the "blending of the full text of journal articles and books alongside citation data, bibliographic, and authority records resulting in a powerful search experience. Rather than being provided a limited number of access points selected by catalogers, each word and phrase within the text becomes a possible point of retrieval." Breeding further points out that: "web-scale discovery platforms will blur many of the restrictions and rules that we impose on library users. Rather than having to explain to a user that the library catalog lists books and journal titles but not journal articles, users can simply begin with the concept, author, or title of interest and straightaway begin seeing results across the many formats within the library's collection."

Jason Vaughan (2011, 2012)^{5, 6} has written widely about Web-scale resource discovery tools. He has defined resource discovery tools as having the following characteristics:

- Content harvested from locally hosted and remote repositories (including the library catalog) and added to a central index.

- Content from publishers and aggregators that is pre-indexed into the central index. This material includes journal articles, e-books, reports, and similar materials, both purchased and licensed.
- A Google-like search box providing a familiar search experience, along with advanced search tools.
- Fast and ranked (by relevancy, but also by other options) search results.
- The ability to use faceted navigation to narrow search results.

4. STATEMENT OF THE PROBLEM

The problem is entitled “Perception and Utilization of Single Window Search Tool for Conducting Literature Search: A Case Study.”

5. OBJECTIVES

The objective of the study is to understand the perception and utilization of the ‘Single Window Search’ tool for conducting a literature search

6. METHODOLOGY

A structured questionnaire method has been adopted to understand the perception and utilization of the ‘Single Window Search’ tool for conducting a literature search. A questionnaire is distributed to the participants of the workshop conducted on a single-window search tool by the KMC Health Sciences Library.

7. DATA ANALYSIS

Table 1 shows that the total number of a questionnaire distributed. A questionnaire was distributed to all 100 participants (faculty members, researchers, postgraduate students) of the workshop, of which 68 participants were responded. The percentage of response was 68.00%.

Table 1: Questionnaire distributed and returned

Number of questionnaire distributed	Number of questionnaire returned	Percentage of responses (%)
100	68	68

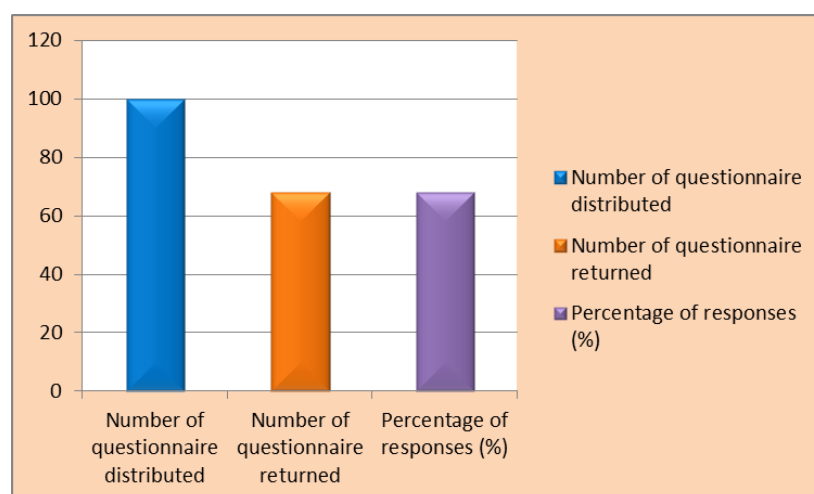


Fig. 3: Questionnaires distributed and returned

7.1 Gender-wise Distribution of the Questionnaire

Table 2 shows the details of the population as per as their gender is concerned. A total of 68 valid respondents were obtained; 26.5% of the respondents are female and the remaining 73.5% are male.

Table 2: Demographic profile of the respondents

Particulars	Frequency	Percentage (%)
Female	18	26.5
Male	50	73.5
Total	68	100.0

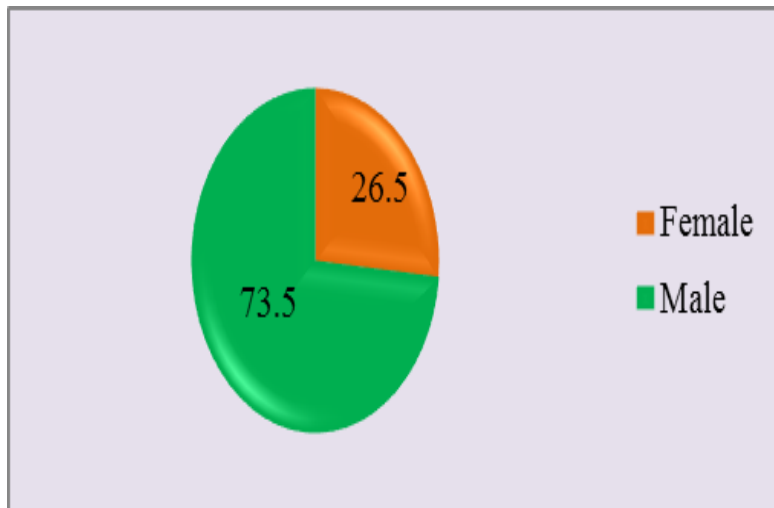


Fig. 4: Demographic profile of the Respondents

7.2 Purpose of Using Single Window Search Tool

The respondents were requested to indicate their purpose of using the single-window search tool. Data presented in table 3 and fig. 5 shows that 88.2% of respondents are using Single Window Search for research purposes. The study further revealed that 19.1% of respondents are using the Single Window Search tool for teaching, whereas 42.6% of them are using the same for learning. It is also observed that 20.6% of respondents are using Single Window Search for patient care.

Table 3: Purpose of using single-window search

Particulars	Frequency	
	Yes (%)	No (%)
Teaching	13 (19.1)	55 (80.9)
Learning	29 (42.6)	39 (57.4)
Patient Care	14 (20.6)	54 (79.4)
Research	60 (88.2)	8 (11.8)
Other	2 (2.9)	66 (97.1)

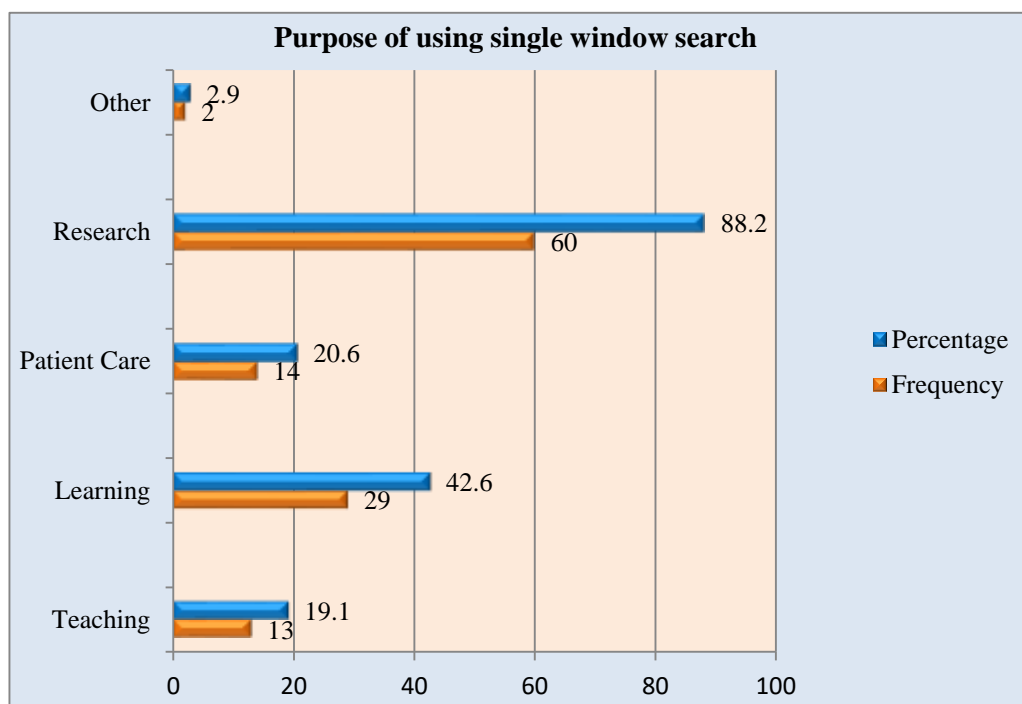


Fig. 5: Purpose of using single-window search

7.3 Frequency of Using Single Window Search Tool for Conducting Literature Search

Respondents were asked to indicate their frequency of using a single-window search tool for conducting a literature search. Data presented in table 4 and fig. 6 indicates that 35.3% of respondents have used the Single Window Search tool daily, whereas 33.8% of users' access Single Window Search whenever they required literature for research and other activities. From the analysis, it further noted that 10.3% of respondents' access Single Window Search once a week, 8.8% of respondents' access Single Window Search 2-3 times in a week, 11.8% of respondents' access Single Window Search occasionally.

Table 4: Frequency of using single-window search for literature search

Particulars	Frequency	Percentage (%)
Daily	24	35.3
Once a week	7	10.3
2-3 times in a week	6	8.8
Occasionally	8	11.8
When required	23	33.8
Total	68	100.0

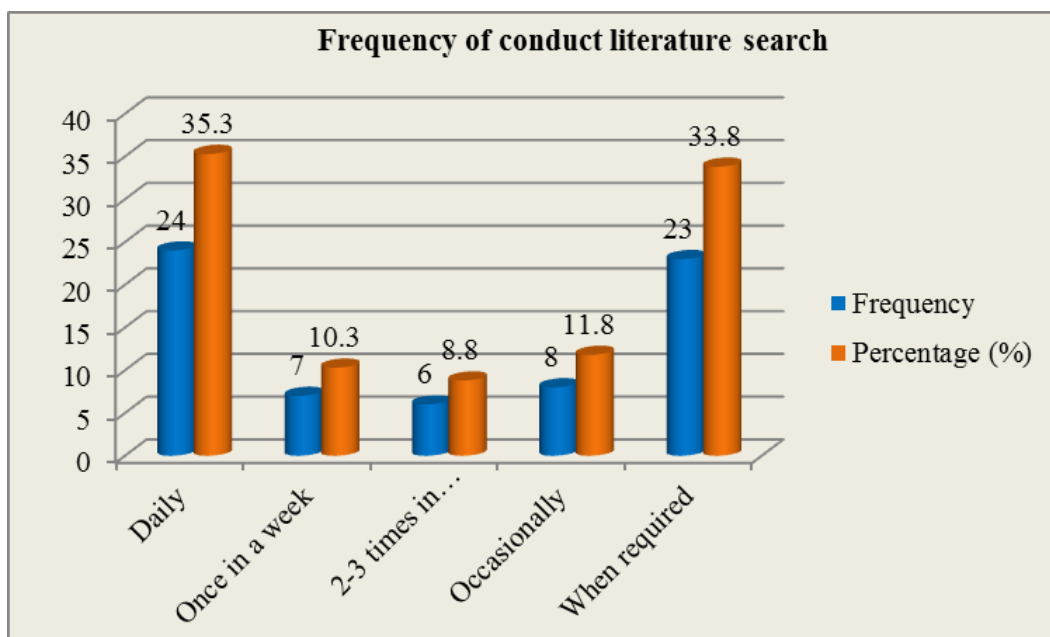


Fig. 6: Frequency of using single-window search tool for literature search

7.4 Time Spend in Using Single Window Search Tool for Conducting Literature Search

Participants of the study were asked to indicate the time spend using a single-window search tool for conducting a literature search. From table 5 and fig. 7, it is indicated that 23.5% of respondents spent less than 1 hour using Single Window Search while 35.3% of respondents spent 1-2 hours per day making use of Single Window Search. The present study further indicated that 13.2% of respondents spent 2-3 hours per day, 20.6% of respondents spent more than 3 hours daily in conducting literature search using Single Window Search, which is implemented by the KMC Health Sciences Library.

Table 5: Time spend daily in using single-window search for conducting a literature search

Time	Frequency (%)
Less than 1 hour	16 (23.5)
1-2 hrs. per day	24 (35.3)
2-3 hrs. per day	9 (13.2)
More than 3hrs. per day	14 (20.6)
No response	5 (7.6)
Total	68 (100)

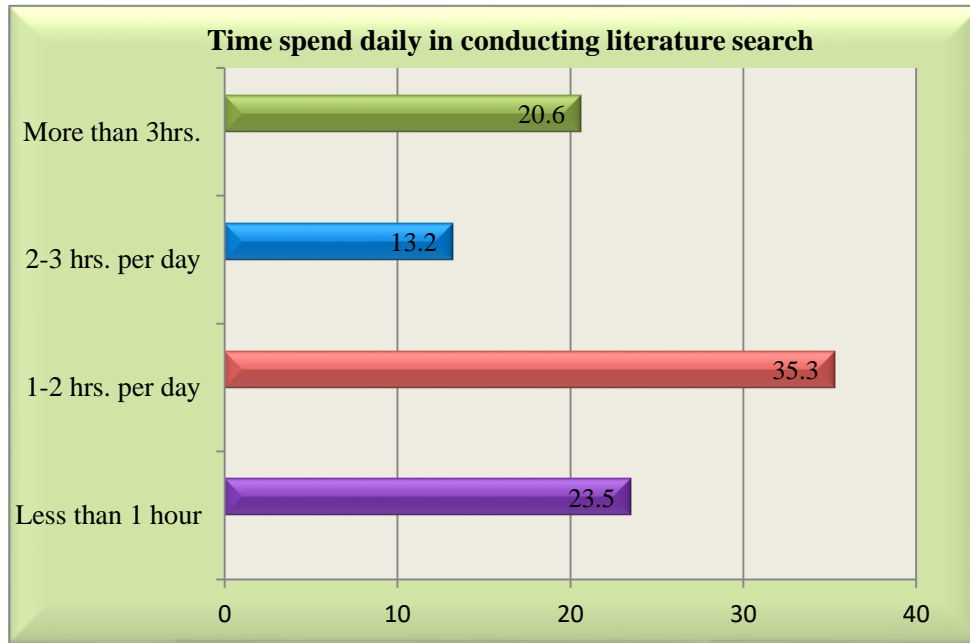


Fig 7: Time spend daily in using single-window search for conducting a literature search

7.5 Resources Accessed for Conducting Literature Search by Using Single Window Search Tool

The main aim of table 6 and fig. 8 is to demonstrate the resources accessed for conducting literature search by using the single widow search tool. It is indicated from the analysis that online journals accessed by a large number of respondents (77.9%) using the Single Window Search tool and the second important resource accessed by respondents (64.7%) is online databases for conducting literature search using the single-window search tool. The study also noted that e-books had been accessed by 33.8% of users through a single-window search tool.

Table 6: Resources accessed for conducting a literature search

Particulars	Frequency	
	Yes (%)	No (%)
Print Books	10 (14.7)	58 (85.3)
Print Journals	21 (30.9)	47 (69.1)
Online Journals	53 (77.9)	15 (22.1)
e-Books	23 (33.8)	45 (66.2)
Online Databases	44 (64.7)	24 (35.3)
Any Other	0	68 (100.0)

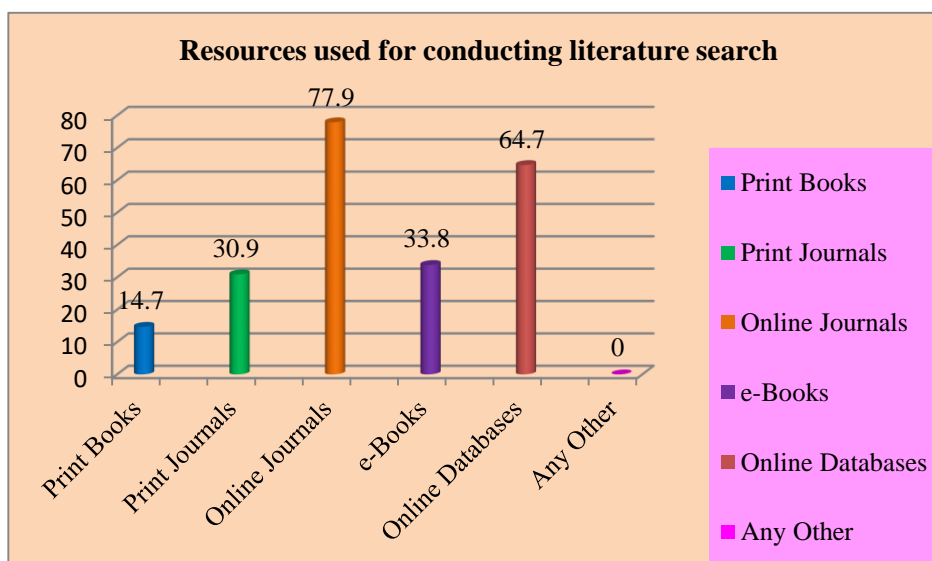


Fig. 8: Resources accessed for conducting a literature search

7.6 Online Databases/Journals Platforms Accessed by the Users for Conducting Literature Search Using Single Window Search Tool

One of the central concerns of this study was to understand the online databases/journal platforms accessed by the users for conducting literature searches using the single-window search tool. Data presented in table 7 and fig. 9 shows that 69.1% of respondents have accessed Scopus online database, whereas 44.1% of them accessed the Web of Science online database for conducting literature search using the Single Window Search tool. The study further analyzed that 50.0% of participants accessed SpringerLink online database for conducting a literature search. The present study also indicated that ClinicalKey (36.8%), CINAHL Complete (32.4%) online databases were also used by the respondents for conducting a literature search. From the analysis, it is further indicated that journal platforms such as BMJ (42.6%), Nature (27.9%) were also accessed by participants of the study for conducting literature searches using the single-window search tool.

Table 7: Online databases/journals platforms used for conducting a literature search

Particulars	Frequency	
	Yes (%)	No (%)
Clinical Key	25 (36.8)	43 (63.2)
Springer Link	34 (50.0)	34 (50.0)
CINAHL Complete	22 (32.4)	46 (67.6)
ProQuest Health and Medical Complete	16 (23.5)	52 (76.5)
Dentistry & Oral Sciences Source	4 (5.9)	64 (94.1)
Scopus	47 (69.1)	21 (30.9)
Web of Science	30 (44.1)	38 (55.9)
Oxford Journals	12 (17.6)	56 (82.4)
JAMA Journals	12 (17.6)	56 (82.4)
BMJ Journals	29 (42.6)	39 (57.4)
Lippincott	9 (13.2)	59 (86.8)
Nature Journals	19 (27.9)	49 (72.1)
Access Medicine	7 (10.3)	61 (89.7)

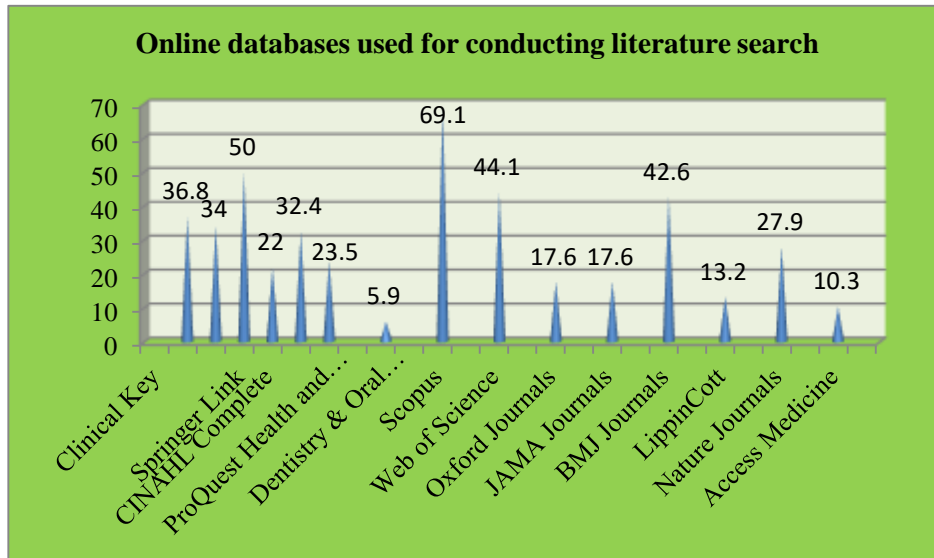


Fig. 9: Online databases/journals platforms used for conducting a literature search

7.7 Respondents' Opinion on Single Window Search Tool for Conducting Literature Search

Respondents were asked to mention their opinion on the use of Single Window Search for conducting a literature search. Table 9 and fig. 10 reveal that 55.9% of respondents felt that the Single Window Search tool is important for conducting a literature search, whereas 44.1% of respondents are of the opinion that Single Window Search is very important for conducting a literature search.

Table 8: Respondents' opinion on Single window search tool

Particulars	Frequency (%)
Very Important	30 (44.1)
Important	38 (55.9)
Neutral	0
Not Important	0
Not at all Important	0
Total	68 (100)

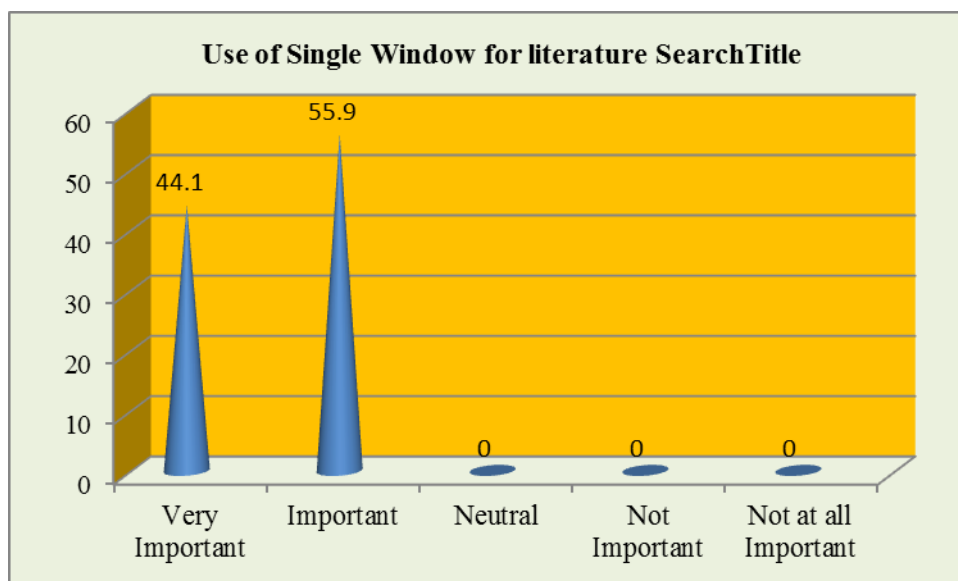


Fig. 10: Respondents' opinion on Single window search tool

7.8 Perception of the Respondents on Single Window Search Tool

One of the key objectives of this survey was to analyze the perception of the respondents on a single-window search tool for conducting a literature search. Table 10 and fig. 11 summarizes the respondents' perception of the single-window search tool. The majority of the respondents (48.5%) strongly agreed that Single Window Search helps to use the library resources effectively. About 44.1% of respondents are of the opinion that it saves time in conducting a literature search and easy to search through multiple databases. The study further indicated that 48.5% of respondents have strongly agreed that the Single Window Search tool supports their research activities. It is also understood from the study that 36.8% of respondents have strongly agreed that the Single window search tool helps them to retrieve from all library resources.

Table 9: Perception on use of Single Window Search

Perception	Strongly agree (%)	Agree (%)	Neutral (%)	Strongly Disagree (%)	Disagree (%)	Total (%)
Effective use of library resources	33 (48.5)	20 (29.4)	5 (7.4)	6 (8.8)	4 (5.9)	68 (100)
Save time in conducting literature search	30 (44.1)	20 (29.4)	6 (8.8)	7 (10.3)	5 (7.4)	68 (100)
Easy to search through multiple databases	30 (44.1)	20 (29.4)	6 (8.8)	7 (10.3)	5 (7.4)	68 (100)
No need to have an awareness on each database subscribed by library	20 (29.4)	18 (26.5)	16 (23.5)	11 (16.2)	3 (4.4)	68 (100)
Helps to retrieve from all library resources	25 (36.8)	19 (27.9)	10 (14.7)	10 (14.7)	4 (5.9)	68 (100)
Supports in research activities	33 (48.5)	17 (25.0)	6 (8.8)	6 (8.8)	6 (8.8)	68 (100)

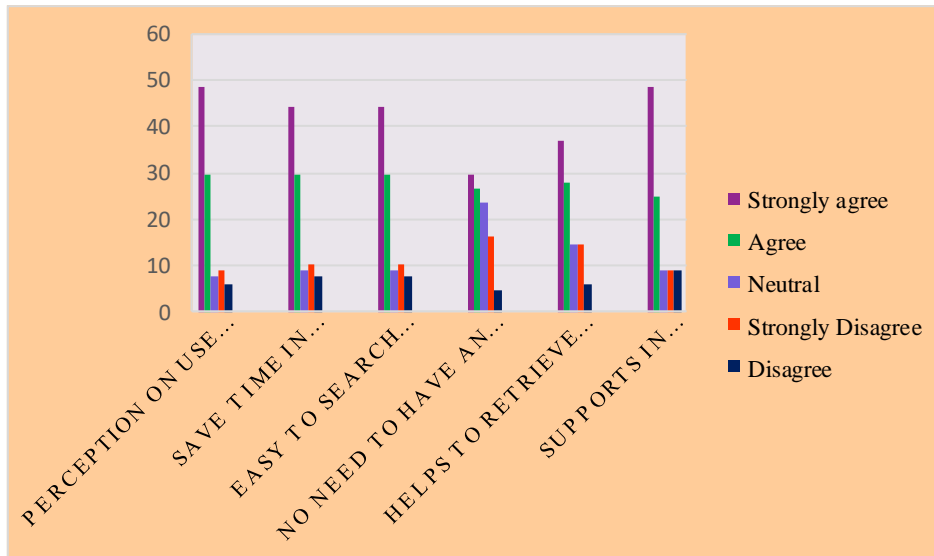


Fig. 11: Perception on use of Single Window Search

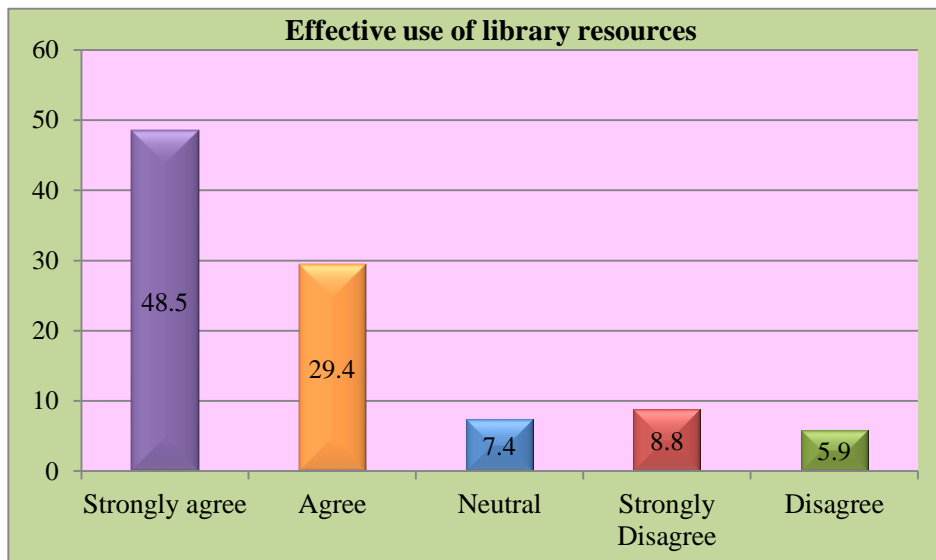


Fig. 11a: Effective use of library resources

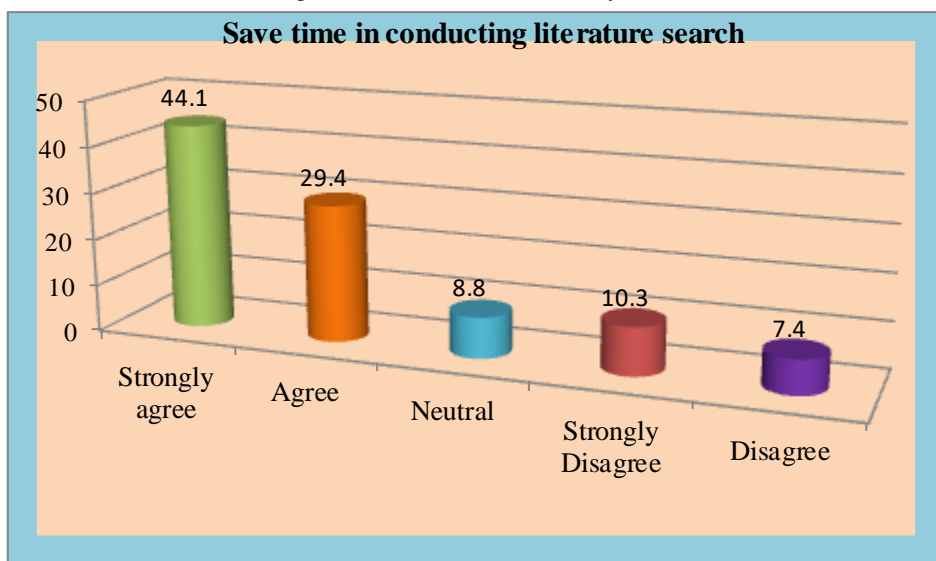


Fig. 11b: Save time in conducting a literature search

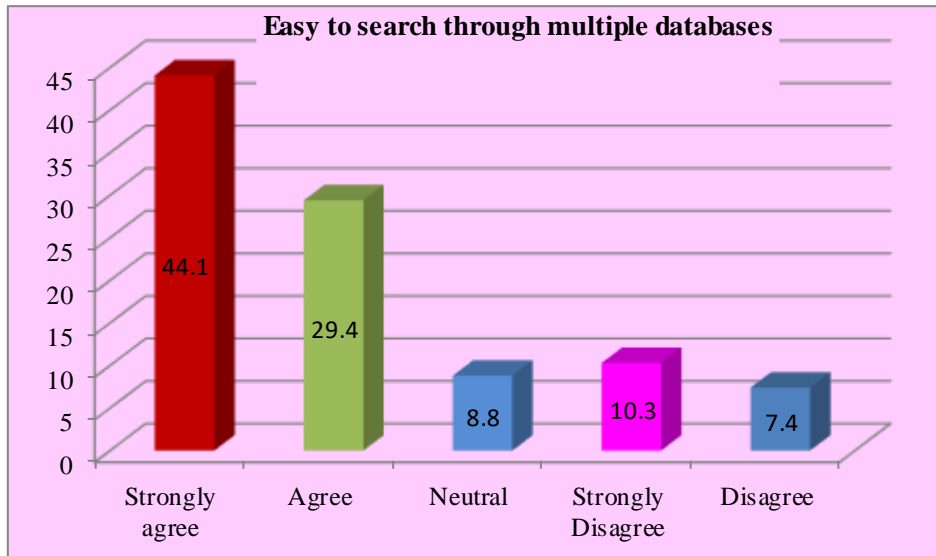


Fig. 11c: Easy to search through multiple databases

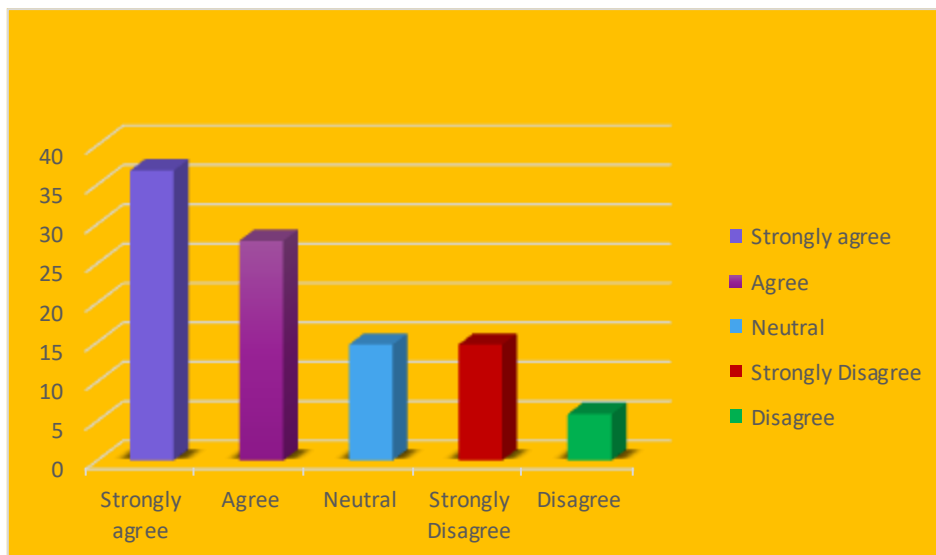


Fig. 11d: Helps to retrieve from all library resources

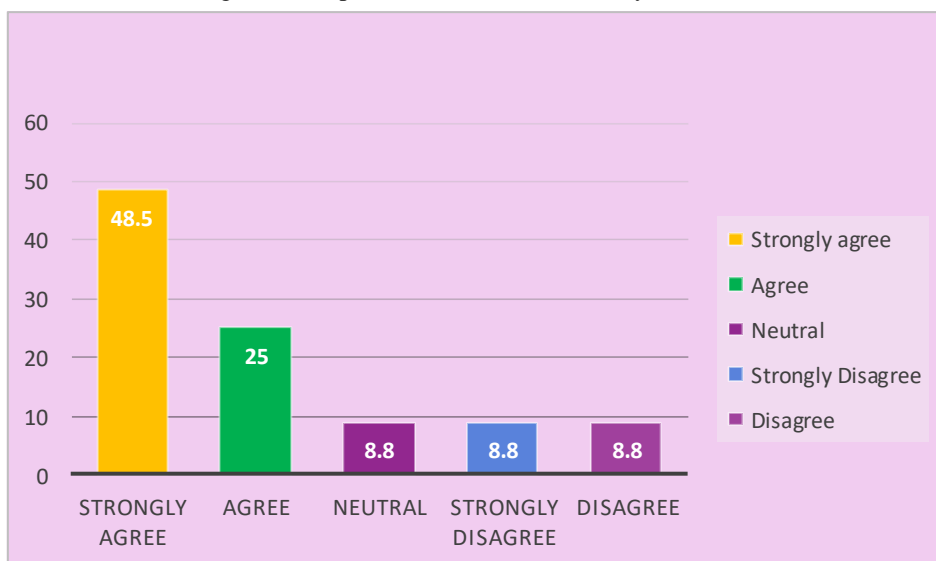


Fig. 11e: Supports research activities

8. FINDINGS OF THE STUDY

On the basis of the results of the survey, the significant findings of the study are drawn here below:

- Respondents of the present study are active users of the single-window search tool and rely heavily on it for conducting a literature search for teaching, learning and research purposes.
- The study perceived that the single-window search tool as an important learning resource platform and respondents of the study enjoyed the convenience of searching the single-window search tool to obtain literature.
- It is noted from the study that 88.2% of respondents are using the Single Window Search tool for research purposes.
- The present study indicated that 33.8% of respondents access the Single Window Search tool whenever they are required for literature for research and other activities.
- The study revealed that 35.3% of respondents spent 1-2 hours per day making use of the Single Window Search tool
- The study also observed from the opinion of the users that online journals accessed a large number (77.9%) of respondents and the second important resource accessed by respondents is online databases (64.7%) for conducting literature search using the single-window search tool.
- From the study, it is understood that 69.1% and 44.1% of respondents have accessed Scopus and Web of Science online databases respectively for conducting literature searches using the Single Window Search tool.
- The study disclosed that the majority of the respondents (48.5%) strongly agreed that the Single Window Search tool helps them to use the library resources more effectively.
- It is also noted from the study that about 44.1% of respondents are of the opinion that single-window search tool saves their time in conducting a literature search and easy to search through multiple databases.
- It is understood from the study that 48.5% of respondents have strongly agreed that the Single Window Search tool supports their research activities. Also, 36.8% of respondents strongly agreed in this study that the Single window search tool helps them to retrieve from all library subscribed resources.

9. CONCLUSION

The present study has observed the benefits of the 'Single Window Search' tool at Health Sciences Library, MAHE, Manipal in conducting an effective literature search. Library users who are spending hours together searching for literature related to their topic of interest across multiple databases could search in a single window and retrieve relevant literature quickly. It is extremely helpful for the users to conduct a literature search. Since the 'Single Window Search' tool has created a single index for all the resources subscribed by the Health Sciences Library, users are exposed to various databases/journal platforms that they may otherwise not know existed.

Health Sciences Library, MAHE, Manipal is subscribing to core databases, full-text journals and other information resources each year from leading publishers and aggregators

to support the needs of health science professionals, students and researchers. By combining all of those vital paid resources and selected open access resources with the library's internal resources like OPAC, institutional repository on one single effective platform, the library could increase visibility and usage of those resources. By successfully implementing the 'Single Window Search' Service tool, Health Sciences Library, MAHE, Manipal is supporting its users in conducting literature search, which is very much required for teaching, learning, research and patient care activities of library users. Providing the users with a convenient and efficient interface for accessing e-resources and conducting literature searches should be the main motto of any library in this digital era.

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