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Use of KMC Health Sciences Library Portal by Postgraduate Students and Faculty Members of Manipal College of Pharmaceutical Sciences, MAHE, Manipal, India

Sunil Shetty
Presidency University, Bangalore, sunilshetty901@gmail.com

Shivananda Bhat
Manipal Academy of Higher Education, shivanandabhatk@gmail.com

Mahabaleshwara Rao
Manipal Academy of Higher Education, m.rao@manipal.edu

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Sunil Shetty Assistant Librarian, Presidency University, Bangalore. 560064 Karnataka, India. E-Mail sunilshetty901@gmail.com

Dr. Shivananda Bhat K. Associate Professor and Chief Librarian Department of Library & Information Science and Health Sciences Library, Kasturba Medical College Manipal Academy of Higher Education Manipal – 576 104, Karnataka, India E-mail: shivanandabhatk@gmail.com; shiva.bhat@manipal.edu

Dr. Mahabaleshwara Rao Associate Professor and Senior Librarian Department of Library & Information Science and Health Sciences Library, Kasturba Medical College Manipal Academy of Higher Education Manipal – 576 104, Karnataka, India Phone: E-mail: baikadi@yahoo.com; m.rao@manipal.edu

Abstract

 The paper examines the use of KMC Health science Library Portal by the postgraduate students and faculty members of Manipal College of Pharmaceutical Sciences (MCOPS), MAHE, Manipal. A total of 60 questionnaires were administered to 45 postgraduate students and 15 faculty members of MCOPS, Manipal. All the filled in questionnaires were returned by the respondents, and hence the response rate is 100%. The findings indicated that faculty members use the library portal more frequently than the postgraduate students. 60% of postgraduate students and 66.7% of the faculty members stated that KMC Health Sciences Library portal had influenced their research process. The findings revealed that postgraduate students and faculty members of MCOPS, Manipal are satisfied with the quality, contents, and arrangement of links and layout of the library portal.

Keywords: Library portal, KMC Health Sciences Library, library webpage, Health Sciences Libraries

1. Introduction

Today health science libraries provide access to a wide diversity of electronic resources, including bibliographic databases, full-text databases, full-text journals, full-text books, digital repositories, etc. in addition to print resources on various health science subjects. Developments in Information and Communication Technology has increased the number of e-resources and also transformed the way the health science libraries collect, organize and disseminate information to their users. It is a herculean task for the users to access the various e-resources subscribed by the library if they have to remember the publishers' websites to access the same and without a common platform. It is difficult to manage the e-resources and raise awareness on the same among the health science professionals and students if there is no single gateway, i.e., library portal.

The KMC Health Sciences Library is a central library for all the constituent Health Sciences Institutions of Manipal Academy of Higher Education (MAHE) at Manipal including Manipal College of Pharmaceutical Sciences (MCOPS), Manipal. A library portal of KMC Health Sciences Library, MAHE, Manipal is an interface using which users could access OPAC, online databases, online journals, e-books, open access databases and other digital contents subscribed by the library anywhere, anytime in the campus and also could be accessed remotely. Library portal is also a medium to manage the electronic resources and to promote the usage of both print and electronic resources. Library portal facilitates the access to the content subscribed by the library as it is a single gateway to the library users, making it unnecessary to remember username, password or the URL of the respective publishers' websites to access the bibliographical or full-text content from them.

The web portal of KMC Health Sciences Library is organized, and categories have been made in such a way that users could find and access various information resources subscribed by the library easily and quickly using menus. Links have been provided in the library portal to access library overview, library services, library e-resources, notices@library, what is new@ library, suggestions. The 'library overview' page in the library portal has some links like – objectives of the library, the floor plan of the library, collection, rules and regulations, library staff contact details, the arrangement of books, annual report, etc. In 'Library Access,' links to an alphabetical listing of print journals, back volumes of journals, new acquisitions, list of online databases, e-

books, list of CDs, scanned copies of previous years question papers of MAHE University examinations are provided. Under 'important links,' links to MAHE digital repository, a National digital library of India, Shodhganga, PURE-Manipal Research Portal, etc. are given. In 'other links' links to Scopus indexed journals, impact factor of journals, health science libraries, health science publishers, sites for librarians, World Health Organization, useful websites, herbal sites, etc. The link 'Search Engines' contains links to 8 search engines including Google. Link to the catalog of e-Journals, e-Books & online databases has been provided in 'ERMSS' (e-Resources Management Search Solution Software). Remote access to library portal and e-resources has been provided in 'EZproxy' link. Under 'online databases' links have been provided to all the 13 libraries subscribed databases including Scopus, Web of Science, Clinical key, ProQuest, CINAHL plus with full text, AccessMedicine, Springer link, UpToDate, DynaMed Plus, PubMed. 'E-Books' provides a list of databases on e-books and their links. Separate links have also been provided to bibliographical databases under 'Bibliographic databases.' Links have been provided in library portal to reference management tools Mendeley, EndNote, etc. In link 'Single window search @Health Sciences Library' library provides users with an easy, yet powerful means of accessing all of an institution's information resources through a single search using EBSCO Discovery service.
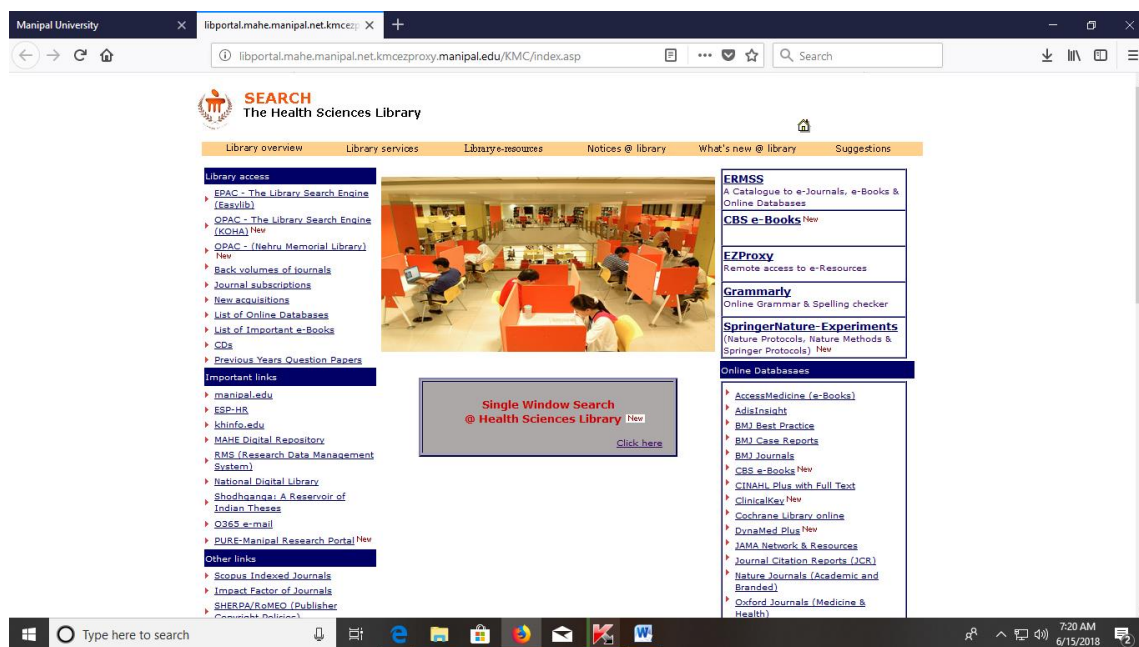
Figure1. The homepage of KMC Health Sciences Library portal

2. Literature review

Xiaodong Li (1999)[1] conducted a study on analyzing the usage pattern of library webpage to improve the webpage design and to facilitate the access to it. Web tracking software was used for the analysis and generating the statistics. The purpose of the study was also to identify the web design problems. The study also compared usage statistics gathered before and after the library's Web page promotion activities.

The purpose of the study conducted by Louise McGillis and Elaine G. Toms (2001)[2] was to understand the usefulness of an academic library website. They observed that library users went through difficulties in knowing where to go and with the site's information architecture—in particular, with interpreting the categories and their labels. The authors concluded that library websites fail to satisfy the approaches of users and support the users on how to interact with the tools, products, and services.

Neena Singh (2001)[3] highlighted role of librarians in establishing library/home pages to promote their resources and services. She emphasized the important role of librarians and information

professionals in designing and maintaining libraries' web page leading to increasing inefficiency of the library.

Susan Augustine and Courtney Greene (2002)[4] in their study revealed that students consistently and frequently use the library website's internal search engine to obtain information rather than navigating through the pages. The study revealed that Web page designers must give importance to metadata and powerful search engines. The survey also indicated that users have difficulty in understanding terminology being used by the library on the website and they prefer to get help from the library staff whenever they faced the problem online. The findings of the study revealed that library websites had not reduced some of the basic and long-range problems that have challenged librarians in accessing the same.

The study conducted by Tiffini Anne Travis and Elaina Norlin (2002)[5] examines the usage of electronic research libraries such as Questia, which has been planned to replace traditional libraries and compare it with large university library websites. Students were asked to use two electronic research library sites and two large university library Web sites. Findings of the study indicated that design feature incorporated by website designers could affect the research being conducted by the students.

Susan Xue (2003)[6] attempted to evaluate a government publications library Website by studying its usage statistics. The organization, including access, searchability, and structure, of electronic government data in the subject directory format, were studied. The study revealed that a subject directory website is an important tool for disseminating electronic government information. The usage statistics are helpful in monitoring search engine ranking, improving display, social organization, and searchability on the website.

Barbara A. Blummer (2007)[7] in his study revealed that library users are finding difficulties in obtaining literature and services as library websites are not properly designed. The increasing importance of the web for research and the increase in subscription cost of electronic resources necessitated giving importance to design as well as content in planning the web pages.

The research was undertaken by Hamblin, Yvonne. (2004)[Eight] on five university libraries under Libportal Project revealed that implementation of portals are much helpful in managing electronic resources more effectively and it facilitates access the full-text journal articles and some databases.

Letha M.M. (2006)[9] made an effort to explain the portal of Technical Information Resource Centre of Naval Physical and Oceanographic Laboratory of Defense Research and Development Organization and the services offered through this portal. In the paper, she highlighted the function of a library portal for various user services.

R Samyuktha (2006)[10] explained various features and proactive role of the Campus Portal (Science Campus, Guindy) of the University of Madras in enhancing the caliber of research.

Suresh Jange, Mallikarjun Angdi, Lalitha K Sami, Shyamala Subramanian (2006)[11] researched a topic on "web content of library portals in Karnataka: the role of librarians in the internet world." The paper examined the library web portals of academic institutions in Karnataka and discussed the role of librarians in developing the library web page in enhancing the effective utilization of library websites to become more user-friendly for information access.

Adu, Esther. (2010)[12] attempted to investigate librarians use and nonuse of the Bazar library portal and their expectations from a library portal. The study indicated that enhancement of usage of Bazar Library portal would depend on the availability of right content in the web portal, implementation of publicity and marketing processes.

The paper by Nishat Fatima, Naved Ahmad, and Shadab Ahmad (2011)[13] evaluated the degree of awareness and habit of using library portals by the users of Engineering and Technology, Aligarh Muslim University,(AMU) Aligarh. Data were gathered through a structured questionnaire administered to the undergraduate and graduate students of Engineering and Technology at AMU. The study found that though the majority of the students were using library portal, they are not using it regularly. The survey indicated that lack of awareness; training, guidance, and the lack of contents in the library portal are the main reasons for not using the library portal by the respondents. Further majority of the respondents gave an average value to their library about the

portal provision of course materials and useful links. Majority of the respondents also stated that they needed instructions and help for the effective utilization of resources on the library portal.

Kannappanavar B.U (2011)[14] highlighted the need for training to develop the skills and technique for website designing so that, libraries activities can be used better in the interest of Institutional goals.

Geetha M., Mamatha K.R. And Farhana (2013)[15] surveyed "Use of Library Portal by Research Scholars and Faculty Members at Kuvempu University." The study was on the usage of the Kuvempu University library portal and also discusses the awareness and use of a library portal by patrons of the University library and the purpose of visiting the library portal.

Findings of the study conducted by Muhammad Ijaz Mairaj (2013)[16] revealed that librarians are required to adopt marketing strategies to make the library websites popular for wider use. They should adopt necessary measures to improve the content of the library web pages

Manisha B. Mane1 and B.M Panage (2014)[17] in their study highlighted the need for the development of library portal to meet users needs. They also stressed the need for every library to provide links to collection and services in the library portal.

The review of the literature reveals that there are no studies conducted so far on use of Health sciences library portal by the students and faculty members of the college of pharmaceutical sciences. Hence an attempt is made in the present study to provide an insight into the use of KMC Health Sciences Library Portal by postgraduate students and faculty Members of Manipal College of Pharmaceutical Sciences, MAHE, Manipal, India.

3. Statement of the problem

Manipal College of Pharmaceutical Sciences,(MCOPS), Manipal is one of the primer institutions of Manipal Academy of Higher Education (MAHE), Manipal, India established in the year 1963. It is well known for quality education in pharmaceutical sciences and research. KMC Health Sciences Library, MAHE, Manipal caters to the information needs of the students, research scholars and faculty members of MCOPS by providing access to various print and electronic

resources. The library portal is well designed, and links to both subscribed and open access contents have been provided to facilitate the access of resources and services provided by the library. The present study investigates the use of KMC Health Sciences Library Portal by postgraduate students and faculty Members of Manipal College of Pharmaceutical Sciences, MAHE, Manipal, India.

4. Objectives of the study

The objectives of the study are as follows:

- To assess the awareness on The KMC Health science library portal by the postgraduate students and faculty members of the Manipal College of Pharmaceutical Sciences, MAHE, Manipal.
- To explore the purposes and frequency of use of the library portal.
- To examine the databases accessed through the library portal.
- To gauge the level of user satisfaction among users in accessing and using library portal.
- To identify the barriers to accessing the library portal.

5. The significance of the study

The purpose of the study is to understand awareness and use of the KMC Health science Library Portal. The KMC Health Sciences Library has well developed library portal and has given links to all the subscribed and open access resources, OPAC, other digital contents, websites etc in the library portal under different headings. The study is intended to assess which are the links and resources being used by postgraduate students and faculty members of the Manipal College of Pharmaceutical Sciences, MAHE, Manipal and their satisfaction on the use of library portal. The study also helps in the improvement of library portal and to update the portal depending upon the library users' suggestions. It would be helpful in assessing the advantages and limitations of the KMC Health Science Library portal. This study will give libraries the opportunity to, understand user needs and enhance the use of the library portal.

6. Scope and limitation of the study

The scope of the work is restricted to use of KMC Health Sciences Library Portal by Postgraduate Students and Faculty Members of Manipal College of Pharmaceutical Sciences, MAHE, Manipal.

7. Research methodology

For the collection of data on the use of Health Sciences Library Portal by postgraduate students and faculty members of Manipal College of Pharmaceutical Sciences, (MCOPS), MAHE, Manipal, well-structured questionnaires were used. Convenience sampling method was used in the study. A total of 60 questionnaires were distributed among 45 postgraduate students and 15 faculty members of MCOPS, Manipal. All the filled in questionnaires were returned by the respondents, and hence the response rate is 100%. The collected data have been analyzed with the help of SPSS (16.0) statistical analysis software package and presented in the form of tables and graphs.

8. Data analysis

8.1 Distribution of respondents

The study sample consists of postgraduate students and faculty members from different departments of Manipal College of Pharmaceutical Sciences, MAHE, Manipal. Table 1 gives detailed information on the distribution of questionnaires to the respondents.

Table 1: Distribution of respondents

Sl. No	Gender	Postgraduate Students		Faculty Members	
		Frequency	Percentage	Frequency	Percentage
1	Male	25	55.6%	8	53.3%
2	Female	20	44.4%	7	46.7%
	Total	45	100%	15	100%

8.2 Awareness on the KMC Health Sciences Library Portal

Figure 2 depicts the awareness about the library portal. The study revealed that a high percent of postgraduate students (91.1%), as well as faculty members, (100%), were aware of KMC Health Sciences Library portal. Only 8.9% of postgraduate students were not aware of the library portal.
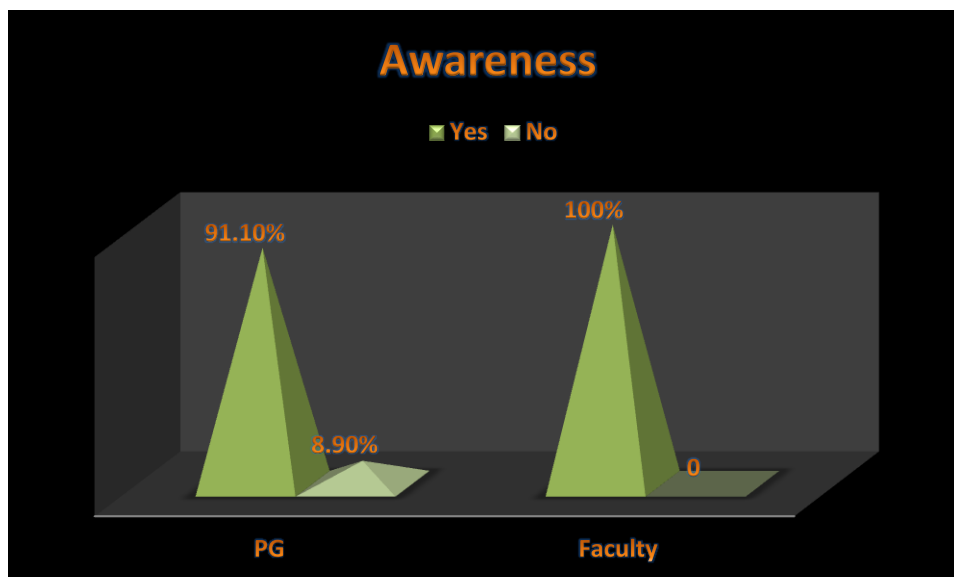

Figure 2: Awareness on the KMC Health Sciences Library Portal

8.3 Frequency of usage of the KMC Health Sciences Library Portal

Majority of the respondents (postgraduate students-44.40%; faculty members-53.30%) indicated that they use the Health Science library portal 2-3 times in a week. Among the respondents, faculty members are more frequent users of library portal than postgraduate students. It may be due to dependency on library portals to retrieve the literature for perusing their research. The study found that library portal is used by 91.1% of respondents, while 20% of total respondents' usage library portal on a daily basis. The same has been depicted in Figure 3.
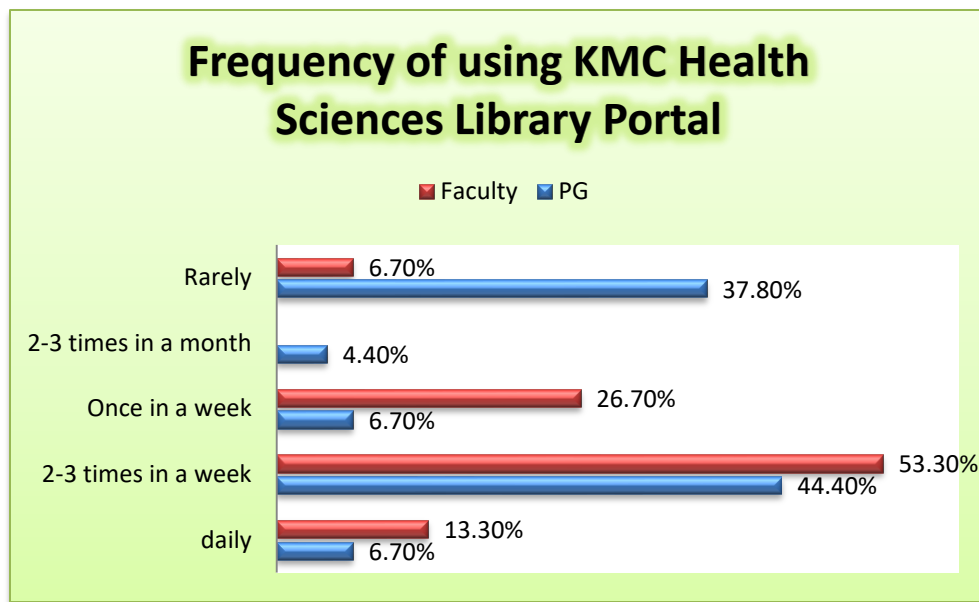
Figure 3: Frequency of usage of the KMC Health Sciences Library Portal

8.4 Purposes of Using the KMC Health Sciences Library Portal

The purpose of using the library portal differs from one user to another. The users may use the library portal for various purposes such as research work, to find reference information, to use e-journals and databases, to download full-text articles, and so on. Table 2 reveals the purpose for which the library portal is being used. The data analysis shows that majority of postgraduate students (53.3%) used the library portal for research purpose followed by learning (46.7%), whereas the majority of faculty members (93.3%) used the library portal for research purpose followed by only (6.7%) of them used for learning. It can be observed from the above analysis that 53.3 % of faculty members use the library portal for research activities.

Table 2: Purposes of using the KMC Health Sciences Library Portal

Sl No.	Purpose	Postgraduate students		Faculty Members	
		Frequency	Percentage	Frequency	Percentage
1	For research	24	53.3%	14	93.3%
2	For learning	21	46.7%	1	6.7%
	Total	45	100%	15	100%

8.5 The Use of information resources and services through the KMC Health Sciences Library Portal by postgraduate students

A library being a service-oriented organization, it offers different sources and services for its users to meet their demands. Users may use these sources and services by visiting the library portal. Some of the resources and services available through the Health Sciences library portal are listed under this study and respondents were requested to show the use of resources and services and their frequency. Figure 4 indicates the use of information resources and services through the Health Sciences Library portal by postgraduate students. It is evident from the table that postgraduate students (40%) were accessing open access resources often, followed by subscribed e- databases(33.3% and e-journals (33.3%) in the library portal and 33.3% of the postgraduates are not using MAHE digital repository link provided in the library web portal.
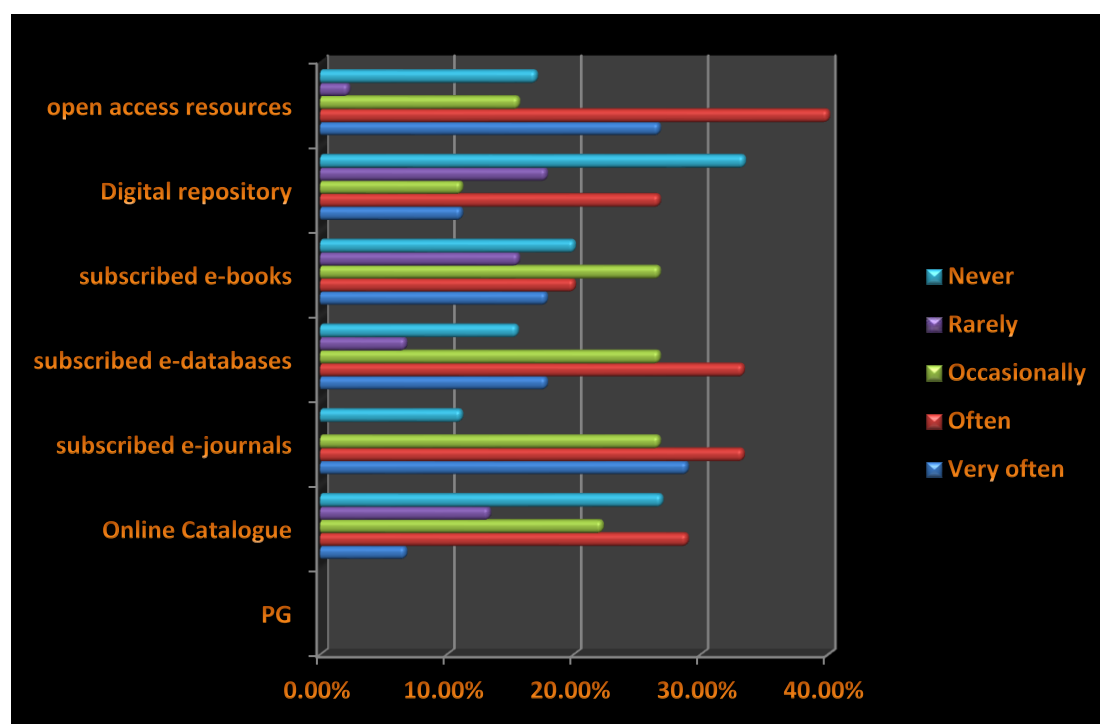

Figure 4: The Use of information resources and services through the KMC Health Sciences Library Portal by postgraduate students

8.6 Use of information resources through the KMC Health Sciences Library Portal by faculty members

The library portal is developed to showcase the online library resources available to make maximum utilization most conveniently. The Figure 5 shows that the 53% of the faculty members use the open access databases often and 47% of the faculty members use library subscribed e-resources very often. It has been observed that 47% of the faculty members never used the online catalog of the library using library portal.
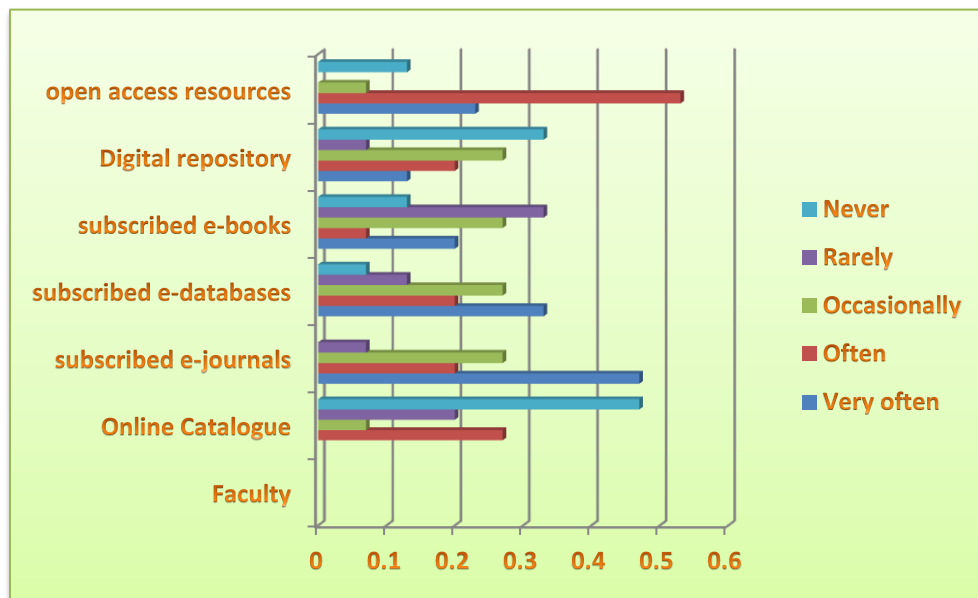

Figure 5. The use of information resources through the KMC Health Sciences Library Portal by faculty members

8.7 Databases accessed through the KMC Health Sciences Library Portal by postgraduate students

The Health Sciences Library Portal is providing access to various subscribed databases. Figure 6 shows the databases which are most useful to the postgraduate students and Faculty members of the Manipal College of Pharmaceutical Sciences, MAHE, Manipal. The highest percent of postgraduate students had accessed the SpringerLink, Web of Science and Science Direct. 80% of the postgraduate students accessed SpringerLink. While 73.3% of postgraduates used web of science and 75.5% used science directly, 66.7% had access to PubMed/MEDLINE open access database. The response from postgraduate students indicated that 66.6% accessed Scopus, which was suggested as 'relevant' to their courses, 53.3% accessed the ProQuest database and JCR.

The ClinicalKey, AdisInsight, AccessMedicine and BMJ Best Practice had been used to a lesser extent by the postgraduate students, but this may be because there is less coverage of literature related to pharmaceutical sciences.
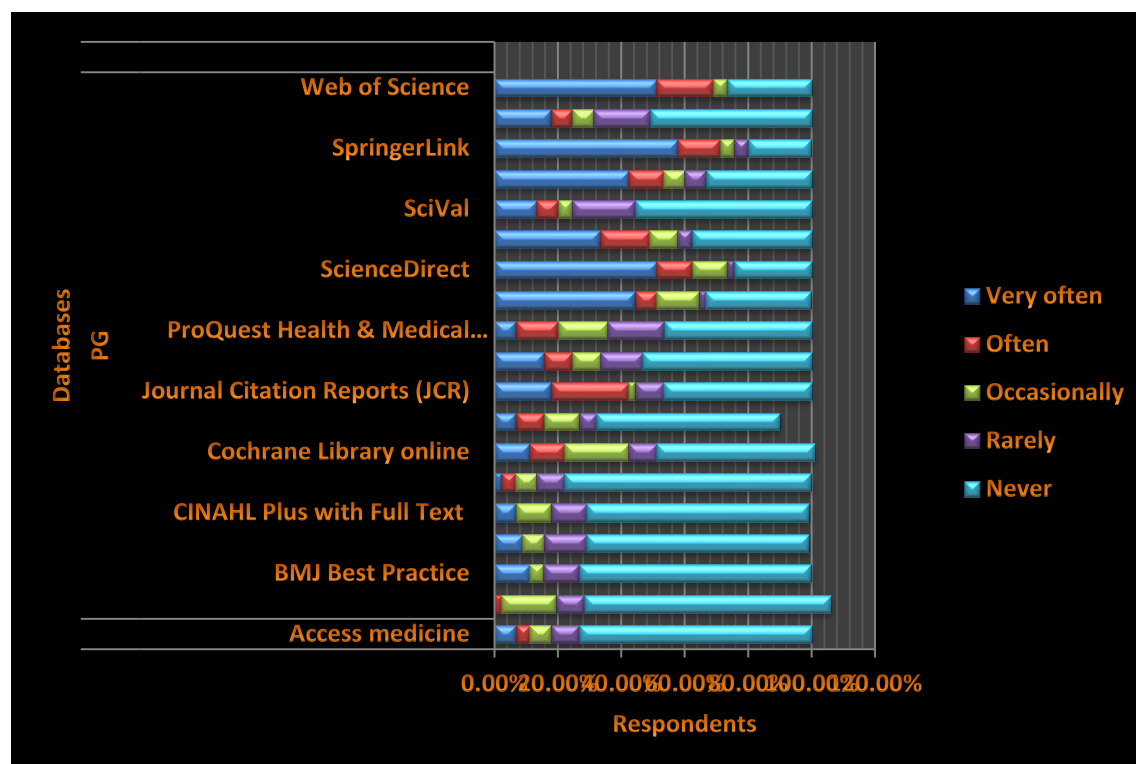

Figure: 6 Databases accessed through the KMC Health Sciences Library portal by postgraduate students

8.8 Databases accessed through the KMC Health Sciences Library Portal by faculty members

Figure 7 shows the of use of databases provided through library portal. It was noticed that among all the databases, majority of faculty members very often used PubMed/MEDLINE, SpringerLink, Science Direct and Web of Science. The 80% of faculty members responded that they never used the AccesMedine and CinicalKey databases provided through library portal and 73.4% faculty members expressed that they never used AdisInsight, BMJ Best Practice and CINAHL Plus with Full-Text databases in library portal.
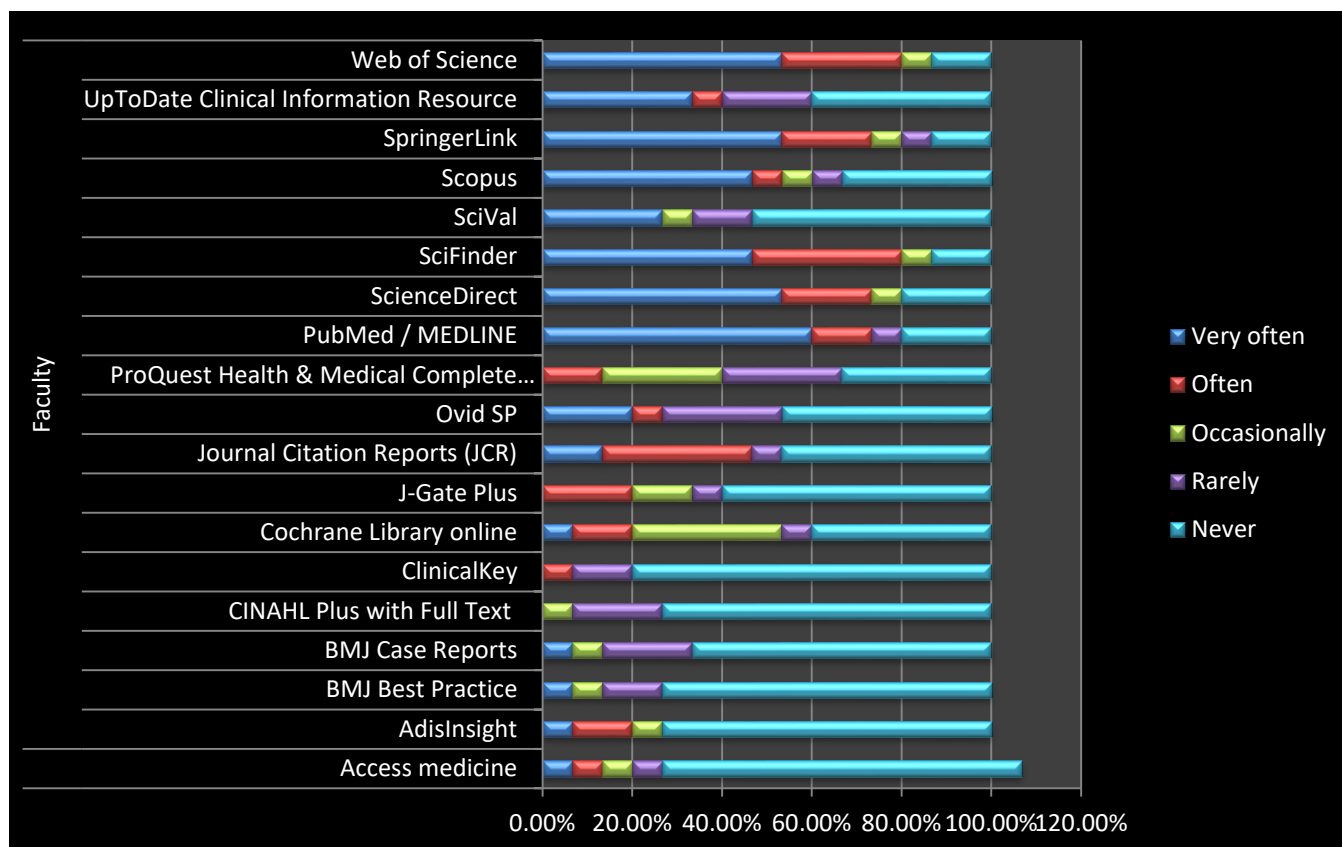
Figure 7 Databases accessed through the Health Sciences Library Portal by faculty members

8.9 Accessing other links given in the KMC Health Sciences Library Portal

To make aware about the newly added books to the library, journals subscribed by the library, the details of the back volumes of journals available in the library and for ease of access to various resources, databases, digital repository, search engines, etc. various links have been provided in the library portal. Table 3 shows that 55.6% of postgraduate students access various search engine links listed in the library portal and 46.7% of students' access back volumes of journals and new acquisitions links in the library portal. The study also revealed that 73% of faculty members access both MAHE digital repository and search engines and also 53% of them access new acquisitions and back volumes of journals

Table 3: Accessing other links given in the KMC Health Sciences Library Portal

		Yes	%	No	%	Yes	%	No	%
1	Back volumes of journals details	21	46.7%	24	53.3%	8	53%	7	47%
2	Print journal list	15	33.3%	30	66.7%	4	27%	11	73%
3	New acquisitions	21	46.7%	24	53.3%	8	53%	7	47%
4	Previous Years Question Papers	18	40%	27	60%	2	13%	13	87%
5	MAHE Digital Repository	18	40%	27	60%	11	73%	4	27%
6	Search engines	25	55.6%	20	44.4%	11	73%	4	27%
7	What's new @ library	12	26.7%	33	73.3%	7	47%	8	53%

8.10 The influence of KMC Health Sciences Library Portal on academic efficiency

As Figure 8 shows, 60% of postgraduate students responded that library portal influenced their research process following 37.80% of postgraduate students stated that library portal had increased academic efficiency and only 2.2% of postgraduate students found that the library portal influenced to improve their professional competence. 66.7% of faculty members stated that the library portal had influenced their research process; the 20% of them are of the opinion that it has increased the academic efficiency and only 13.3% of faculty members replied that the library portal had improved professional competence.
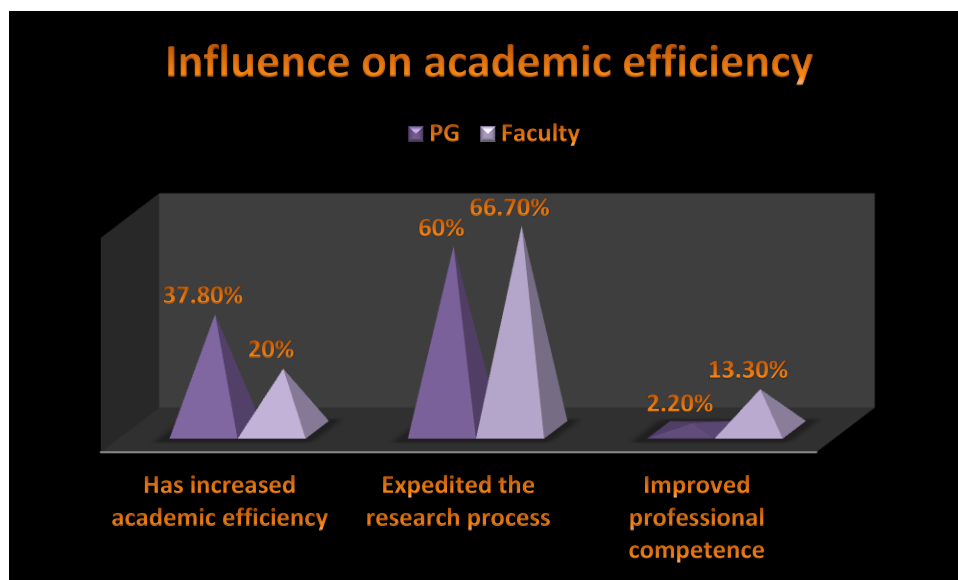
Figure. 8 The KMC Health Sciences Library Portal Influence on academic efficiency

8.11 Overall satisfaction with the KMC Health Sciences Library Portal by Postgraduate students

To know the overall satisfaction regarding the quality, contents, and arrangement of links of the KMC Health Science Library Portal, MAHE, Manipal, respondents were asked the questions like image quality, layout, the arrangement of hyperlinks and ease of use, etc. of the library portal. Figure 9 shows that 51% of Postgraduate students are satisfied with the image quality; 31.1% of the Postgraduate students were moderately highly satisfied with the links to E-Books and image quality. 49% of postgraduate students are satisfied with the layout of the library portal; followed by 44% of postgraduate students satisfied with the links given to the bibliographic databases. The majority of postgraduate students (42%) are satisfied with the links given to search engines and also 40% of postgraduate students are satisfied with the links to open access databases, links to full-text databases and arrangement of hyperlinks. 31.1% of postgraduate students were neutral about the ease of use and link to e-records. On the other hand, it was found that a very less percentage of respondents were dissatisfied or highly dissatisfied with the library portal.
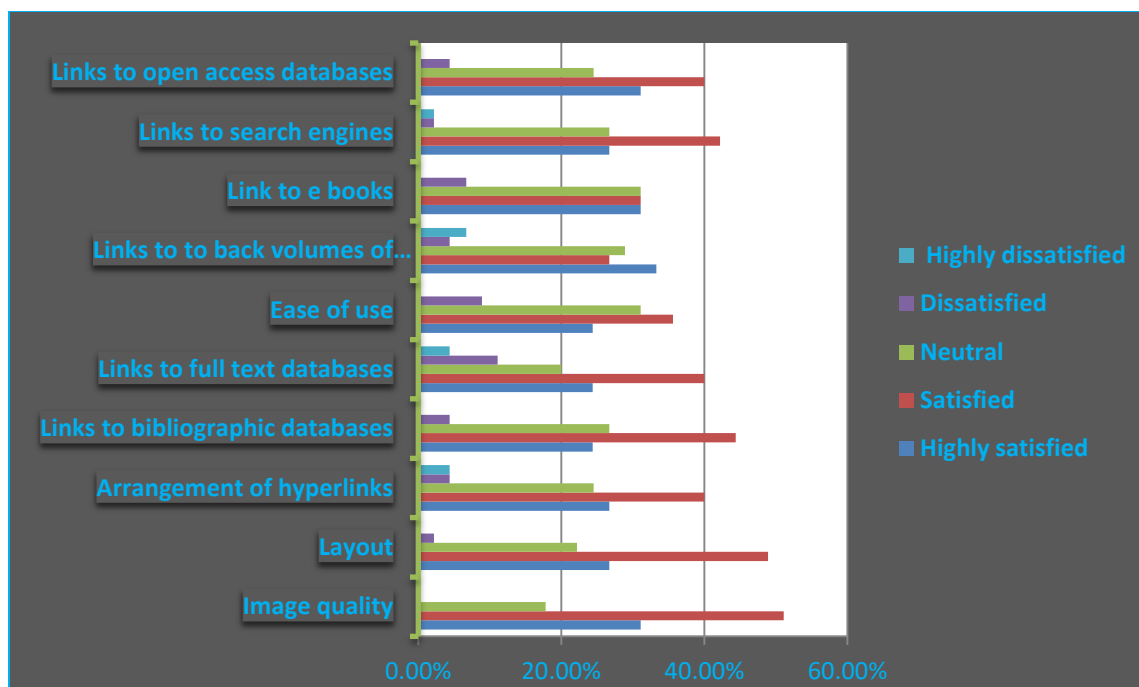
Figure 9: Overall satisfaction with KMC Health Sciences Library Portal by Postgraduate students

8.12 Overall satisfaction with the KMC Health Sciences Library Portal by faculty members

The Figure 10 shows that only 80% of faculty members were satisfied with the image quality of the library portal. 73% of faculty members are satisfied with the links to open access databases through the library portal. Whereas a high percentage (67%) of faculty members are satisfied with the links provided to research engines, bibliographical databases, e-books to access inside the library portal and ease of function as well as placement of hyperlinks of the library portal. 26.7% of faculty members are highly satisfied with the links given to the full-text database, whereas 20% of faculty members were highly satisfied with the links to open access databases, search engines, bibliographic databases, e-books and back volumes of journals. A very less percentage of faculty members were neutral and dissatisfied with the library portal.
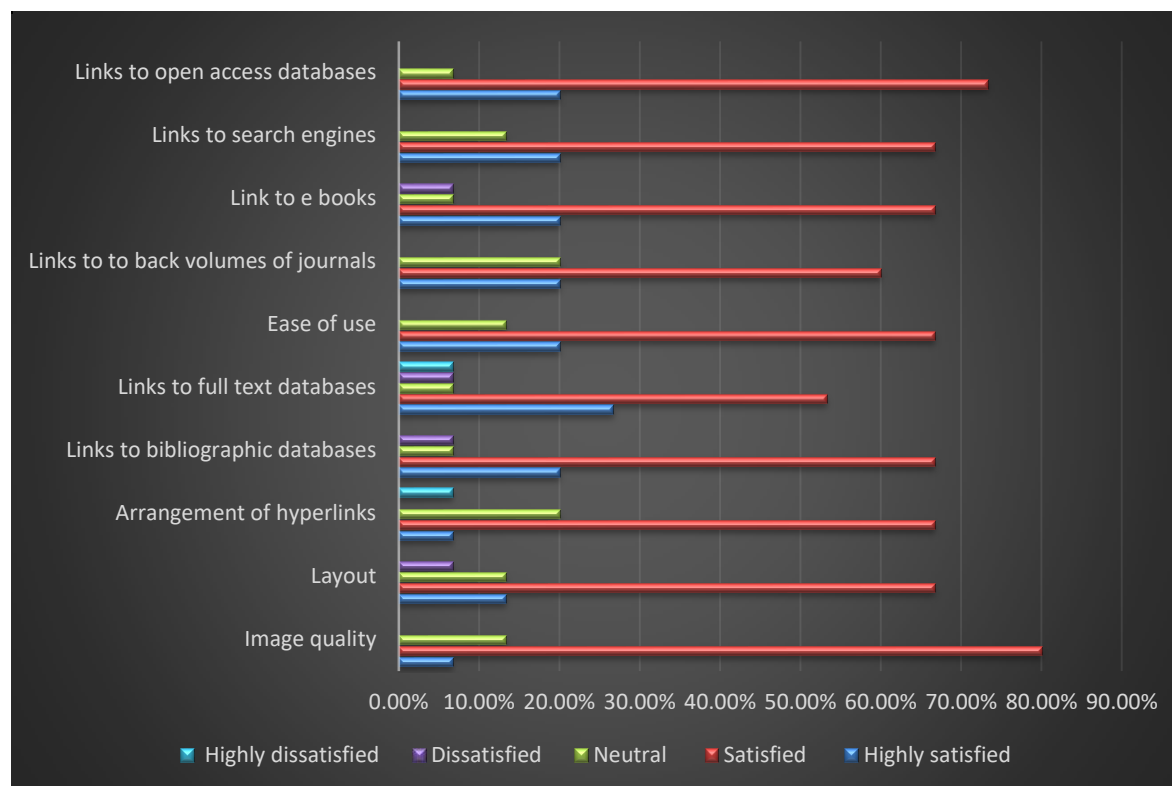
Figure 10: Overall satisfaction with the KMC Health Sciences Library Portal by faculty members

8.13 Barriers in accessing the KMC Health Sciences Library Portal

One of the primary aims of this study was to understand the barriers faced by the users in accessing the library portal. The data collected related to the barriers to the use of library portal are represented in Table 4. It is identified from this study that 40% of postgraduate students found difficulty in finding relevant information, while 26.7% of students state that the slow speed of the internet is a constraint to access information. It is also found that the 60% of faculty members had difficulty in finding relevant information in the library portal, while 20% found the slow speed of the internet is a barrier to access the resources available in the library portal.

Table 4: Barriers in accessing the KMC Health Sciences Library Portal

	Barriers	Postgraduate Students		Faculty Members	
		No.	%	No.	%
1	Slow access speed	12	26.7%	3	20%
2	Difficulty in finding relevant information	18	40%	9	60%
3	Overload of information on the Library Portal	2	4.4%	1	7%
4	It takes too long to view/download pages	5	11.1%	1	7%
5	Non availability of systems in library	8	17.8%	1	7%
	Total	45	100%	15	100%

9. Findings

Major findings of the study are as follows.

- The study indicated that approximately 91.1% of postgraduate students and 100% faculty members were using library portal.

- The data were analyzed to know the frequency of use of the library portal. The frequency of postgraduate students varied regarding the use of the library portal. It was observed that majority of postgraduate students (44.4%) used the library portal two to three times in a week; followed by 6.7% every day; 37.8% rarely and 6.7% only once in a week. Whereas faculty members are concerned, 53.3 % of them used library portal 2-3 times in a week; followed by 26.7% once in a week; 13.3% daily and 6.7% faculty members used it rarely.

- The high majority of faculty members (93.3%) stated that they are utilizing the library portal for research purpose, only a few faculty members (6.7%) have responded that they use library portal for learning purpose.

- It was noticed that among all the information sources and services majority of postgraduate students of the MCOPS were accessed more often open access databases,

subscribed e- databases and e-journals in the KMC Health Sciences Library Portal. They are rarely using the digital repository provided in the library portal

- To recognize the overall satisfaction regarding the quality, contents, and arrangement of links of the library portal, students were asked the questions like image quality, layout, the arrangement of hyperlinks and ease of usage, and so on. The study revealed that 51% of postgraduate students are satisfied with the image quality; 31.1% percentage of the postgraduate students were moderate, highly satisfied with the links to E-Books and image quality. 49% of postgraduate students are satisfied with the layout of the library portal; followed by 44% of postgraduate students satisfied with the links given to the bibliographic databases. The majority of 42% of postgraduate students are satisfied with the links given to search engines and also 40% of them are satisfied with the links to open access databases, links to full-text databases. 31.1% of PG students were neutral about the 'ease of use' and 'link to e-books.' On the other hand, it was found that a very less percentage of respondents were dissatisfied or highly dissatisfied.

- With regard to faculty members of MCOPS, 80% of faculty members were satisfied with the image quality of the library portal. 73% of faculty members are satisfied with the links to open access databases through the library portal. Whereas a high percentage (67%) of faculty members are satisfied with the links provided to search engines, bibliographical databases, e-books to access within the library portal and ease of use as well as the arrangement of the hyperlinks of the library portal. 26.7% of faculty members are highly satisfied with the links given to the full-text database whereas 20% of faculty members were highly satisfied with the links to open access databases, search engines, bibliographic databases, e-books and back volumes of journals. The very less percentage of faculty members was neutral and dissatisfied.

- This study reveals that 40% of postgraduate students found difficulty in finding relevant information, followed by 26.7% students who stated that the slow access speed of internet is a constraint to access information. It is also found that the 60% of faculty members state that there is difficulty in finding relevant information, while 20% found the slow access speed of internet is a barrier to access the resources available in the library portal.

10. Conclusion

The library portals have become an indispensable tool for libraries of educational institutions. It is a tool designed to promote library resources and services at Health Sciences Libraries. A well-designed web portal is very much essential to the health sciences libraries as health science professionals are much involved in patient care and research along with teaching-learning activities and many times they don't find time to search through various websites to find literature on their topic of study.. It has been observed that library portal of KMC Health Sciences Library, MAHE, Manipal is being used to access online databases like Scopus, Web of Science, ClinicalKey, PubMed by the majority of the respondents. For the libraries, especially academic libraries, there is a need to design a dynamic library portal with links to all subscribed databases, online journals, e-books, digital repositories, OPAC, open access databases, search engines, etc. to enable the students, research scholars and faculty members to conduct literature search more effectively using single interface. Inorder to maximize the usage of library subscribed information resources and to support library users in their teaching, learning, research, and patient care, development of well designed, up-to-date library portals are need of the hour.

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