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A Selective Review on Use of Information Resources and Services in Academic Libraries

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Abstract

More than seventy online studies were reviewed to identify awareness, usage, satisfaction, and challenges of using information resources and services in academic libraries by users. The main objective of this study is to review the literature on information resources and services regarding awareness, usage, impact, challenges, satisfaction levels of users of various academic libraries. The study includes research papers published in national and international journals and other sources available on the internet. A review of various studies revealed that users use library resources and services for various purposes. Studies reveal that most users are satisfied with print resources, but they face problems while accessing online resources due to lack of skills to use these resources. Most students today rely on online resources, but a lack of training prevents them from getting the information they need. Most of the studies have suggested that the library should play an important role in providing information literacy program and user studies at regular intervals in their institutions to provide better library and information services to the users.

Index Terms: Information Resources, Services, User Awareness, User Satisfaction, Academic Libraries

1. Introduction

Library is the heart of any educational institution and is responsible for acquiring information resources available in print and electronic form required for effective teaching, learning and research. Academic libraries are established with the main objective of providing information resources to the students, faculty and non-teaching staff of the academic community. According to Gbaje and Okojie (2010) academic libraries should provide information resources and services that enable users to locate, evaluate and access information in various formats. Considering this, academic libraries need to provide all the necessary information resources and services that better meet the information needs of their various users. Academic libraries

should strive to improve the quality of their services to meet the challenges of information explosion. Abdul Majeed & Bavakutty (2002). identified that the collection, physical facilities and service provided by a good library are the most desired items. Then personal attention from the staff, much expected by the user community.

number of relevant studies have been conducted on the use of information resources and services by teachers, students and research scholars of various institutions and universities. The purpose of the literature review is to gain background knowledge about the research area and broaden the understanding of the research problems. Any study begins with a comprehensive published and unpublished literature search on a selected research problem. If the library resources, facilities, services and functioning are to be satisfactory and remain a place of interest to the users, a comprehensive literature review is required. A review of the literature reveals levels of use of academic library resources and services, and key advice can be applied to ensure that services are inclusive and attractive to all users.

2. Objectives of the study

The main objective of this study is to review the literature on information resources and services regarding awareness, usage, impact, challenges, satisfaction levels of users of various academic libraries.

3. Methodology

The present study was undertaken to review and examine the available selected literature focusing on the use of information resources and services by users of various academic libraries. For this purpose, the researcher reviewed the available literature and selected the most relevant ones guided by the objectives of the study. The review is in the area of user awareness, usage, satisfaction level and challenges faced by users. The study included research papers published in national and international journals and other sources available on the internet.

4. Information Resources and Services

The library plays an important role in providing valuable services to the academic community by selecting and organizing information resources that support the research, education and extension activities of the institution. According to Flamingo (1990), libraries and information centres should be designed to meet the actual needs and anticipated needs of its users. Several relevant studies have been conducted on the use of information resources and services by faculty, students and research scholars of various institutions and universities. An attempt has

been made to review selected published literature in the field of use of information resources and services in academic libraries. The literature review is divided under five major subheadings. They are as follows.

- ❖ User Awareness
- ❖ Use of Information Resources
- ❖ Use of information Services
- ❖ User Satisfaction
- ❖ Challenges while using Information Resources

4.1 Study on User awareness

Durfee (1986) investigated the extent to which Lake Forest College students are aware of the existing reference services at Donnelly Library. Overall, their awareness was found to be relatively high, although there was an indication that some services would be used more if students knew they offered those services. The differences between students' answers and librarians' predictions suggest that other reference librarians who wish to confirm or assess user awareness may profitably use a similar approach when the alternative relies solely on impressions.

Tyagi, (2011) examines to know the awareness and perceptions of users of Electronic Information Sources (EIS) at IIT Roorkee. The result showed a growing interest in EIS among users and most of the respondents identified that the library has useful online journals and databases. The present survey reflects the increasing interest in online journals among users at IIT Roorkee.

Das & Maharana, (2013) jointly undertake the survey on awareness and utilization of electronic information resources by science research scholars of Berhampur University. The study confirmed that science research scholars are aware of e-resources and various types of e-resources, e-databases and e-journals. The research observed that most of the respondents are facing problems like information materials not available in library (61%), facing difficulty in searching relevant information (47%), accessing information from internet is too slow (61%), overload of information on internet (53%), lack of relevant information (43%) takes a long time to download, facing problems while searching information due to lack of cooperative attitudes of library staff (78%).

According to Gupta and Sharma (2017) in a study of awareness and satisfaction with the use of digital information resources and services of Central Library of IIT Guwahati, majority of users are aware of e-books and e-journals and find these resources important for their studies and research. Findings reveals that 70.9% of the respondents are satisfied with the available digital information resources and services.

Eyiolorunshe & Eluwole, (2017) conducted a survey to know the awareness, accessibility and use of library resources by faculty of Landmark University, Nigeria. The findings show that all the faculty members were aware of the resources in the library and most of the users were satisfied with them their teaching and research purposes.

Gulati and Lathwal (2018) investigated a case study to assess the awareness, utilization and satisfaction level of library services in privately owned educational institutions that received no assistance from any source. According to the study, students are aware of various library services. It is observed that male and female students are equally satisfied with various library services, but they are not highly satisfied with these services. Hence there is a need for improvement in various library services.

Bansode, Sadanand & Jadhar, (2020) identify the awareness and use of the N-LIST Consortium by the faculty members of selected colleges affiliated to Savitribai Phule Pune University, Pune. According to the survey the faculty members are aware of the N-LIST resources and are using mainly for updating their domain knowledge and for teaching purposes. Some faculties faced barriers such as lack of knowledge in accessing the resources and slow internet speed hindrance the use of N-List e-resources. The study demands for organizing regular training programmes to the faculties so that they would be properly trained in accessing the N-LIST e-resources.

Kiana & Mabeifam, (2020) investigated the perceptions and use of the virtual library by undergraduate students at the International University of Management, Namibia. The findings revealed that most users are aware of the virtual library, however, the level of awareness was relatively higher than the use. Most of the respondents found the virtual library useful and easy to use. Users faced some challenges that hindered the effective use of virtual libraries, ranging from internet disruption and inadequate computers in the library to lack of skills required to use the virtual library.

B. Partap & Manju, (2021) investigated the awareness and use of e-resources among the students at Chandigarh College of Architecture, that more than 90% of the respondents were

aware about the use of electronic resources. The study reveals that majority of the users faced problems while accessing these e-resources.

Verma & Shukla, (2021) highlights the comparison of information literacy skills among social science postgraduate students at Mizoram University (MZU) and Tezpur University (TZU). Mizoram University students are more aware of using library services compared to Tezpur University respondents. It was found that there was no significant difference in the information literacy skills of the students of both the universities. Maximum number of students of both the universities preferred print media to fulfil their required information.

Suja and Suresh, (2022) conducted an online survey on awareness and use of e-resources among students during the Covid-19 pandemic. According to the findings, 63.3% of academic communities were not aware of open access resources. Although they were informed about the resources, only 14.5% used them. Lack of training and support on how to use e-resources was a major challenge for users to use them effectively. Library professionals need to provide adequate information to users about e-resource sites that are freely available on the Internet. (Suja & Suresh, 2022)

Syedhadi and Fahimeh, (2022) found research scholars' awareness and satisfaction levels with resources in academic libraries. The result indicates that more than half of users are aware of on/off-campus passwords to access databases and they are satisfied with internet access, database access and library facilities in universities.

4.2 Use of Information Resources

Tadasad & Metesheela, (2001) study is to find out the relative importance of information sources among two hundred and four post graduate students at Gulbarga University. The study reveals that books, newspapers, popular magazines, dictionaries, subject encyclopaedias and scientific journals are useful sources for postgraduate students. But, diaries and letters, CD databases, trade catalogues, theses/dissertations, microforms, laboratory notes, handbooks, open university textbooks, guides to subject literature, directories, statistical sources, biographical sources, library catalogues, almanacs, manuals, geographical sources and research Reports are never used by most of the postgraduate students.

Vijayalaxmi & Maheswarappa, (2001) jointly investigate the information usage pattern of post graduate female students of Gulbarga University, Gulbarga. The study found that many

students lack knowledge about library resources and services, information sources, reading materials and CD ROM and e-resources.

Kaur & Verma, (2009) attempt to study issues like usage of electronic information resources, its impact on print resources, its awareness among users and points of access. Findings show that all categories of users were aware of e-resources and knew how to use these resources. The impact of e-resources is visible in the decrease in the number of print journals as compared to the increase in the number of electronic journals. Findings show that many users have started using electronic journals. Users access e-resources more from hostels and computer centres as compared to libraries.

Biradar et al., (2009) survey of 101(84.16%) students belonging to Agricultural Science College, Shimoga was conducted to study the frequency and purpose of library visits and usefulness of agricultural science journals. The study reveals that 77.22% of the respondents visit the library daily. About eighty-eight percent of students visit the library to read magazines. Regarding the usefulness of journals, the most useful journals were considered by users to be Indian Agricultural Science Magazine (62.92%) and Karnataka Journal of Agriculture Science (60.67%). While documentary and non-documentary sources are plentiful, the frequency of use of these sources are very low.

A joint study by Pushpalatha and Mallaiah (2009) on the use of information resources in chemistry revealed that most users visit the library to borrow books, consult journals and browse UGC INFONET journals. Online public access catalogue and library staff assistance is the primary tool for users to locate information about the availability of required documents.

Gowda & Shivalingaiah, (2009) used questionnaire method to collect data from researchers from humanities, social sciences and science departments in six universities in Karnataka. The result of the study is that electronic resources have created a positive expectation among the research community in finding information.

Ansari and Zuberi (2010) jointly conducted the survey of the use of electronic resources among academics at the University of Karachi jointly by found that the respondents have computer skills that facilitate the use of electronic resources, although most have little knowledge of electronic resources. This is not a positive aspect of the findings. The survey reveal that electronic resources are used for research and lecture preparation. The study also noted that network issues and lack of training hold users back. All the respondents were satisfied or quite satisfied with the resources available in their library.

Rathnakara et al., (2011) undertaken to identify the use and utilization of facilities other than books in the library by students studying in the 5th semester of the Department of Pharmacology. According to the study many students take their own books to the library or supplement their studies with their own books and about 53% of the respondents said that they do not always get current editions of books. Although most of the students used library services this semester, most of them used only standard textbooks without using other available facilities like medical journals and electronic media databases.

Baikady & Mudhol, (2011) investigated the perception of web as a learning resource by faculty and postgraduate students in medical college libraries of coastal Karnataka. A questionnaire-based survey was conducted in six medical college libraries of coastal Karnataka. The results show that the respondents prefer to use the web more than the traditional library. They perceived the web as comprehensive knowledge and easy to use.

Hadagali and others, (2012) were conducted the use of E-resources by PG students of different universities of Karnataka State. The user's opinion that E-resources are effective sources than print resources. Most of the respondents were use library to search bibliographic information. The major problem faced by the users in the library were lack of availability of computers and internet facilities for obtaining e-resources. Due to this reason to hindrance the use of library resources effectively.

Sivathaasan, N. & Velnampy, (2013) investigated the relationship between the use of e-resources and academic performance of university teachers and how much the use of e-resources contributed to academic performance. Based on stratified sampling, eighty-eight university teachers were invited to respond to the survey and the study used correlation and regression analysis to achieve the objectives. Correlation analysis indicated that the use of e-resources has a strong positive relationship with academic performance of university teachers ($r=0.623$).

Chikkamanju & Kumari, (2014) conducted in Tumkur University affiliated First Class Colleges i.e., University Colleges, Government Colleges, Aided Colleges and Unaided Colleges. This study aims to examine information resources and services, facilities, internet usage, factors affecting optimal use of N-list services and problems faced while accessing. According to the survey, a total of 94.18% members of the faculty visits the college library and 11.62% do not. Majority 315(96.62%) faculty members use internet for data communication purpose. The use of N-list by faculty is more in university colleges as compared to other colleges.

Sonkar, Sharad Kumar, Singh, M. P., and Kumar, (2014) investigated the use of electronic resources by postgraduate students and research scholars of the Banaras Hindu University. Total of 500 questionnaires were distributed among users for collecting information about library. This study proved that majority of the users were aware of e-resources and 37% of the users were satisfied with resources available in the library. The study suggested the regular training for users would maximize the awareness and utilization of library resources and services.

Lewis and Mallaiah, (2014) conducted a study on the use of information resources by the students, faculty members and research scholars in the engineering college libraries of Dakshina Kannada and Udupi Districts was undertaken during August 2013. The analysis showed that respondents do experience insufficiency of information resources in their college libraries. The findings of the studies showed that there were significant differences in the satisfaction level of information resources among the users of various categories. The study suggested that there is need to evaluate the information resources, facilities and services frequently to meet the changing needs of the users.

Ani et al., (2014) investigated the effect of access and use of electronic resources on the productivity of academic staff in Nigerian universities. Correlation analysis showed that there is a positive relationship between access and use of electronic resources on the productivity of survey respondents ($r=0.135$; $p=0.015$). This suggests that an increase in access and use of e-resources leads to an increase in productivity among the respondents in the surveyed universities.

Khan and others, (2015) surveyed the usage of information sources by PG Students of the Social Science Faculty of Aligaurh Muslim University. It was found that the majority of students visit the library for borrowing books in comparison to the newspapers and periodicals reading. The major findings of the study were most of the students face problems in searching of library resources that scattered into many places. The findings show that the users use departmental lab for accessing electronic information resources than Azad Library.

Kiran Kumar, (2017) conducted a survey regarding the use of information resources available in the library by PG students and Research Scholars of the University of Agriculture, Dharwad. The finding shows that 97% of the users visit the library for borrowing books. The finding also reveals that the users are satisfied with the utilization of information resources in the library. Well organized and furnished library attracts the user community towards the library. Less use

of electronic information resources by users due to a lack of awareness about library resources and services.

Maruthi & Biradar, (2017) examined the various factors related to information sources, information needs, information seeking behaviour and use of electronic resources by faculty members of graduate college libraries affiliated to Kuvempu University. The study revealed that a large number of respondents visit libraries to borrow books (78.89%) and 70.56% of respondents prefer print and electronic resources. It is known from the study that 96.67% of the respondents use Google search engines and about 60% of the respondents spend up to 4 hours on the Internet.

Manglik, (2017) studied the utilization of available resources by PG students with special reference to schools of science and technology in selected private universities of Uttar Pradesh. Library resources play an important role in the teaching and learning process at university or higher education level and provide better assistance to its users. The results show that although almost all students are well aware of the resources available in the library, and 89% have used these resources for academic purposes. Some respondents expressed that print magazines are not enough, and circulation service is not good.

The study of Singh, A. G. & Sinha, (2017) about the use of e-resources by faculty and research scholars in a university campus, mainly in the central library and departmental libraries. Library users belonging to the younger generation are quick adopters of the Internet, online/offline electronic resources or web resources. At the same time, study findings reveal that older users are not comfortable using internet and social media, so they tend to use traditional printed resources.

Bhat & Ganai, (2018) assessed user preference towards print and electronic information resources in agricultural libraries of North India. According to the survey users of agricultural libraries in North India use information resources in print and electronic forms almost equally. Neeraj Singh et al, (2018) investigated the use of electronic information resources by research scholars from five social science departments of Punjab University. The findings of the study show that lion share of users are aware of and use library facilities and e-resources and half of them are using e-resources daily.

Neetika Sharma, (2018) surveyed the use of e-resources by faculty and students of Swami Shradhdhananda College, University of Delhi. The study found that most users are aware of the availability of e-resources in their libraries. Majority of the faculty members (76.66%) use e-

resources for their teaching and research activities. Kumar and Divyananda, (2018) examined the attitudes of postgraduate students of Davanagere University regarding the use of library resources. The study covers the PG Centre's of Chitradurga city affiliated to Davanagere University. The outcome of the study was that the users gave more importance to books and journals rather than e-books and e-journals. The survey suggested that an information literacy program with regular interval should help the users to find their required information quickly and satisfactorily.

Joseph and Kabir, (2020) investigated information related to various sources used by postgraduate students of biotechnology and MBA. The study observed Immunology by QB and Biochemistry Resource Book by Vasudevan and Sreekumari are noted to be the most preferred print resources by Biotechnology students. The survey concluded that postgraduate students of journalism and psychology do not use the Internet very often. This study suggests that information resources awareness programs should be offered to postgraduate students.

Sivakami & Rajendran, (2021) investigated the use of online resources among the faculty of an Arts and Science college in Erode district. The research shows that 35% of Arts Group faculty members are frequently using the Internet tools and Science Group faculty members are using e-Database (32.6%) resources. The analysis reveals that faculty members use online resources for general studies (30.3%) and project purposes (36%). The most common problems facing the faculty members while accessing online resources was slow internet speed (38.2%) and lack of time (34.9%).

4.3 Use of Information Services

Manjunatha and Shivalhgaiah (2004) had studied the customers' perception of service quality in academic libraries. The study was conducted to investigate the quality of library and information services from customers' perspective in eight academic libraries, belonging to Medicine, Engineering, Science and Social Science disciplines, in Dakshina Kannada and Udupi Districts in Karnataka state. The study's results reveal that the overall customers' satisfaction level was slightly low. The results obtained from this study clearly indicate the customer priorities and the areas for improvement.

Kumar et al (2010) examines expectations of faculty and research scholars towards library resources and services at Sardar Vallabhbhai Patel University of Agriculture and Technology, Meerut, Uttar Pradesh, India. It shows that 90% of faculty and research scholars are satisfied with the quality of library services and 10% are not satisfied. It is also related to the major

problems that prevent adequate use of the library due to high expectations of faculty members and research scholars.

Hussain & Kumar, (2013) surveyed utilization of information resources and services of the Master School of Management Library. The study reveals that the majority of the users use the library for collecting study materials rather than preparing for competitive examinations. The study also reveals that library staffs are most helpful to provide users' needs. Most of the users are satisfied with the computerization of library services.

Kannappanavar & Chidananda Swamy, (2013) highlighted the issues related to CAS and SDI services in Agricultural Science University Libraries in India with special reference to South India. More than 80% of PG students, research scholars and faculty members feel that they need an index of articles. More than 90% of PG students, research scholars and faculty feel that abstracts of articles are needed for their studies and research. Overall, 17% PG students, 30% research scholars and 28% faculty are satisfied with the current CAS services provided by the libraries under study. On the other hand, 32% of PG students, 30% of research scholars and 30% of faculty expressed that they need SDI services. The overall result shown that 19% PG students, 48% research scholars and 51% faculty are happy with existing SDI services provided by libraries. So, study suggest that increase the CAS and SDI services for the benefit of users.

Ranjan et al., (2014) conducted a survey about use of information sources and services by PG engineering students in Jayawant Library of Rajarshi Shahu College, Pune. The main objective of the study was purpose of visit the library by users. The findings of the study focused that more than 60% of the users visit the library for borrowing and returning of books. More than 70% of the users were satisfied with digital library services of the library. The study suggested that proper training program to users maximize the usage of library resources and facilities.

Khan & Khan, (2016) jointly investigated a study about users' perception and use of library resource and services in Sri Ram College, Muzafar Nagar. The main objective of the study was to find out user satisfaction with library resources and services. The findings of the study reveal that most of the respondent use the library for borrowing books and reading newspapers. The study highlights user satisfaction with library resources. The survey also highlights that user face problem while downloading the documents.

Ramakrishna, and others (2016) surveyed to know the current status and usage of library and information sources and services of selected deemed university libraries of Andhra Pradesh. The main objective of the study is to know the resources like infrastructure, collection, staff,

facilities, and services in the libraries and the opinion of users on Library services, sources, and facilities. The findings of the study show that all university libraries have a rich collection and users satisfied with the library collection and services. Users are satisfied with textbooks of the library and lending services of the library. Most users opined that print resources are more useful than e-resources.

The joint study conducted by Hari Lakshmi and Surendra, (2017) to collect data about use of library sources and services among MCA Students at Sri Venkateshwara University, Tirupati. The main objective of the study was satisfaction of users towards library resources and information services. The findings of the study reveal that users are highly satisfied with borrowing facility, availability of textbooks, reference books and e-resources in the library. The survey recommended that orientation program should be given to the users for better utilization of library resources and services.

Varadaraju, (2017) surveyed use of library resources and services by PG students and faculty of Loyola Academy of Degree and PG College. The main objective of the study was to know the level of satisfaction and the problems faced while using library resources and services. The findings of the study reveal that more than 90% of the users visit the library for borrowing books rather than access e-resources. Findings also reveal that the majority of the users were satisfied with the circulation service of the library. The study suggested that physical facilities such as library space, furniture, etc. should be increased and should conduct regular orientations for maximum utilization of library resources and services.

Murgod, S G., Bankapur, (2019) S.G. Desai Library investigated the use of information sources, facilities and services by students of Belgaum region. A self-administered questionnaire was used to collect data. The questionnaire included twenty-four key questions related to general information, use of print and electronic resources, level of satisfaction with facilities and services, preferred method of information resources, and major problems and concerns in accessing resources. Findings of the study depicts that most of the respondents were satisfied with library services. According to the study users choose electronic resources for their studies rather than print resources.

Jayaram Naik, (2020) investigated the effective use of library resources and services by students of Bangalore University Library, Bangalore. The main purpose of this study is to find out the use of library resources and services by PG science students of Bangalore university. The analysis shows that the science students are satisfied with the library resources and services

offered by the Bangalore University Library and at the same time they suggested that the library needs to acquire the latest editions of textbooks and reference collections.

Kumar and Naik, (2021) conducted survey regarding the users' attitudes towards library resources and services of First Grade Colleges of Bangalore City. The findings explicit that majority of users are satisfied with sufficient availability of space for reading and more the 50% of the respondents are satisfied with library facilities like furniture, Toilet, Ventilation, and cleanliness. The survey suggested that adequate updated collection and other operations should be automated, to meet the users' demand quickly and effectively.

4.4 User Satisfaction

Andaleeb and Simmonds, (1998) conducted a study to know why students and faculty at the Pennsylvania State University were using other library's resources more than their own library and express a preference for those resources. The study had tried to understand the level of satisfaction with the services provided by their libraries, what the other libraries were doing to attract their users to libraries, what special services are provided by other libraries.

Ranganadham and Babu, (2013) conducted a survey regarding user satisfaction on library resources and services in BMS College of Engineering in Bangalore. The outcome of the study was most of the users were aware about library resources and most of the users are satisfied with print and online resources. More than 80% of the users are satisfied with library automation.

Pandiya & Sarmah, (2014) attempted to measure the influencing factors and satisfaction levels of library users of IIM, Lucknow. It was found that physical aspects related to atmosphere and amenities including location were rated best by the students but services like orientation and initiatives like new arrivals display from the library could not satisfy the students more. Use of gadgets and handling of IR was moderate in terms of satisfaction. Before developing any future and undertaking any new initiative the needs of students should be given prime focus and should be kept in mind.

Prakash & Patil, (2014) examines users' perception of information resources and services of central university libraries in India. It describes the availability and use of information sources by postgraduate students and research scholars of Central Universities of Karnataka, Kerala and Tamil Nadu. The study revealed that most of the respondents were using the library. Less number of users are visiting the library for research purposes and respondents use less

information sources and reference sources like scientific journals, conference and seminar proceedings, theses and dissertations. Such problems should be overcome by making necessary arrangements for faculty members and library professionals by offering project work and other co-curricular activities.

Veena and Prabhakara, (2016) investigated the user satisfaction with library resources, services and facilities of SDM College Library, Ujire. 300 questionnaires were distributed among the students to collect relevant data. The findings of the study show that more than 50% of the respondents were satisfied with textbooks and circulation service of the library. The study suggested that college library should carry out user studies at regular intervals, in order to meet the user's information demands and their information gathering behaviours.

Rubasinghe & Bodhinayaka, (2018) jointly undertaken a survey about Post Graduate students' satisfaction with library resources and services in Sri Lankan Universities. The result of the study was most of the users were satisfied with the services provided by library. The majority of the users opined that books are very useful compared to other resources in the library. The user recommended that number of books borrowed should be increased, long time borrowing facilities should be permitted, and user education programs should be organized for maximum utilization of library resources.

In the joint study by Hemavathi and Chandrasekhara, (2018) on the use and user satisfaction on library resources and services in Law College Libraries in Mysore region found that the majority of the users use library for borrowing reading materials and fully satisfied with library resources. The study proposed that law college libraries should carry out user education at regular intervals in order to identify the required information.

Khan and others, (2019) jointly evaluate the user's satisfaction on library and information resources and services in Vidyavardhaka First Grade College library in Mysore in Karnataka. The findings reveal that respondents visited two times in a week to libraries for issue purposes and to read books for their subjects. The users are satisfied with 'arrangement of textbooks' in the library. In terms of overall library services lion share of respondents are satisfied. The study suggested that library should play prominent role in providing information to their users and to provide optimum library and information services. Gudi & Paradkar, (2019) surveyed the user satisfaction with library facilities in engineering colleges of Pune city. According to study the 29.5% of users visit the library daily for the purpose of studying and borrowing books. One fourth of the respondents are extremely satisfied with the library facilities provided.

Saikia & Gohain, (2019) investigated the utilization of library resources, user satisfaction with library resources and services and information seeking behaviours of students and research scholars of Tezpur University. This study revealed that printed books still occupy a dominant position in the library to meet students' information needs. The study revealed that students and research scholars are highly satisfied with the collection of online journals and use these journals for academic and research purposes. Orientation program should be organized from time to time for the library users to make full use of the resources and services available in the library.

Arumugam et al., (2019) This present study is an investigation of user satisfaction with library resources and services in polytechnic college libraries of Coimbatore district. 150 questionnaires were distributed to final year graduate students, post graduate students, research scholars and faculty of polytechnic college libraries to collect relevant data regarding their satisfaction. Most of the respondents belong to mechanical and manufacturing sectors. The survey reveals that 53.8% of users visit the library daily and the main purpose of visiting the library is to borrow books. Half of the respondents are satisfied with library collection. The major barriers are library time and inadequate resources.

Dhanraju, and others, (2021) conducted a survey regarding user opinion and satisfaction about library information resources in engineering college libraries in Krishna district, the state of Andhra Pradesh, India. The research highlighted that majority of the library users are satisfied with information resources available in the library. The Study suggested that engineering college libraries should provide standard electronic databases and regularly conduct orientation programs for effective utilization of resources and to meet the users' changing needs as per the prevailing trends.

Murthy et al., (2021) studied the satisfaction level of users with various physical facilities and services available in Francis Xavier College of Engineering, Tamil Nadu. The researchers used Kruskal-Wallis and Dunn's paired test to find out the results of the study. The study reveals that there is no significant difference in the level of user satisfaction with respect to various physical facilities and services except the service of CD-ROM search facilities available in the library.

4.5 Challenges faced by Users while using Information Resources

Abdulgani et al., (2016) undertaken to determine usage pattern and hurdles in use of the information resources and library services in a Medical College. The results of the study were the main purpose of students visiting library was reference purpose (78.6%). Most of the

respondents were not satisfied with library facilities and services. Mahwasane & Mudzielwana, (2016) surveyed the various challenges faced by students in accessing information in the library. The findings of the study reveal that there are challenges such as lack of skills on how to retrieve information, insufficient user education, lack of computer knowledge and lack of information communication technology (ICT) in accessing information in the library.

Ugwu and others, (2017) studied the direct and indirect factors underlying students' challenges with the use of online information resources at the University of Nigeria. The results revealed that some online resources were widely used, and participants preferred to access these resources from cyber cafes. Direct factors underlying students' challenges with using online information are lack of browsing skills, low internet bandwidth and inadequate ICT infrastructure, while indirect factors are lack of internet access at home, absence of online assignments, lack of motivation to use online information and most students do not have personal laptops.

Shyni et al., (2019) study is to find out the challenges faced by the faculty members at Mahatma Gandhi University, Kerala. Users were found to be very satisfied accessing electronic resources related to education, although some dissatisfaction regarding access was pointed out. The study highlighted that infrastructural facilities and library time schedules should match the requirement while accessing electronic resources.

Lawal & Kannan, (2021) evaluated the information resources and services by postgraduates in the Agriculture University libraries in Nigeria. Key findings testify that the current agricultural information resources available, accessible, and utilized in agricultural university libraries in Nigeria are insufficient. Major findings of the study are constraints faced by postgraduate students lack Internet connectivity, power failure, staff attitudes, lack of current information resources especially e-journals, e-books, and loan periods, and lack of information resources related to agricultural information databases.

Asid, (2021) investigated to see the challenges and opportunities faced by its stakeholders and the degree of satisfaction. Based on the findings, an online library cart facilitated by a social media platform is of great help to educators and learners in the academic community. Low internet connectivity and lack of staff capacity in online delivery, were cited as other challenges. In achieving quality library service, increase in acquisition of e-resources, upgrading of skills of staff and strengthening of culture of partnership and collaboration are important factors to create a way to improve library services.

5. Conclusion

Literature Reviews that include significant studies of the use of information resources conducted around the world help to clearly delineate the research project. From this literature review study, users' information needs and search patterns for information resources can be known. After reviewing several online studies, on the use of library information resources and services by users on awareness, attitudes, use, satisfaction, and behaviours showed different results. Most users are not aware of the online resources available in their library. Most of the students complained that the required resources were not available. The studies reveal that most of the users are satisfied with print resources but due to lack of skills users face problems while accessing online resources. Today most students rely on online resources, but lack of training makes them unable to get the information they need. Further most of the studies suggested that library should play an important role in providing information related to literacy program and mass user studies at regular intervals in their institutions to provide better library and information services.

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