
Information Seeking Behavior of Users on Electronic Resources during the Period of Pandemic (COVID-19) in the University Libraries of Pakistan

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Abstract

The purpose of this study is to examine the user behavior to use electronic resources during period of pandemic: A case study of Public sector University libraries in Sindh Province. It also examines the available collection of electronic resources and facilities provided by the library to access those electronic resources during the period of Pandemic (COVID-19). Methods: - The study was based on descriptive design. The population of the study was Public sector University libraries users. Sample random sampling technique was used to collect data from the respondents of different degree programs. This five-point scale questionnaire was used as instrument of data collection. SPSS-21 was used for statistical analysis. Findings:- The users were interested in accepting the technology as well as gaining knowledge by accessing e-resources. The study found that users were generally satisfied with their library digital collections like e-books, e-journals, institutional repositories, e-magazines and e-dailies. At the same the study observed that the respondents are satisfied with library.

Keywords: Digital library, pandemic (COVID-19), E-Resources, Assessment, User Behavior, information seeking.

1. Introduction

The development of information communication technology leads libraries to become digitized. Again storage of print materials and maintenance were another problem. These issues pushed institutions to go with digital resources. E-resources, a new format of materials are adopted in libraries for maintaining their resources to overcome the problems on using print books such as storage and cost. There were already a number of studies conducted to know the students and faculty member's attitudes on e-resources and results in awareness on e-resources were very less to users. Only few studies said that the libraries are still need to understand the actual usability of e-resources [1]. It denotes there must be a user -centered approach to improve e-resources and their use and adoption in academic libraries. Digital materials can access from out of library area, if physical library is not open and it is easy to maintain and save space.

They found that the e-books are mainly used as extract information they need, there is no more than 30 minutes reading sessions and the users read maximum 5pages and user read complete book was rare, the users were browsing e-books to see their relevant data. The selective pattern of reading was followed, i.e. reading certain pages, some chapters of book, it shows that the users were clear on their information need; they won't read more and collect complete data, but very exact chapters and papers only [2].

conducted a detailed studying MTN library to find out the user perceptions of the library facilities and he found that the users are very satisfied with the library building facilities like furniture, ventilation and lightning etc, and the users express their dissatisfaction with the storage space, instruction and notice boards and toilet facilities. Of course user having awareness on web and search engines for their research but less aware about online indexes and abstracts and online databases. But comparing with other services online internet search services were supposed to provide at higher extent. At last the facilities, services; collections are generally satisfactory to the users[3].

Here the goal of the study was conducted to better understand and find out the challenges faced by the students and staffs by adopting technology, their library Facilities, especially in engineering colleges and the librarians can use to make important decisions about the development of collection, services and product design during the period of pandemic CoVid-19.

2. Literature Review

The study tried to know the issues on measuring effectiveness and he find out that only user satisfaction is not enough to know assessing effectiveness. It plays in the conversion of input to output. He reviewed in his paper that arguments and information, actions and intentions are the components of attitude. In most of the user satisfaction research attitudes are consider to be more difficult than theorized [4]. The research design of user satisfaction studies itself doesn't

recognize the fact that attitudes form and they change in some cases. Finally, he concludes that attitudes influence behavior [4].

The researcher tried to analyze the data by evaluating with some parameters like construct, context, criteria and methods used for evaluation. He extends his study based on evaluation and said that evaluation is not growing activity in digital libraries and in fact it is visible by it's absent in both research and practice, and it seems to be an exception only. But in Institutional repository evaluation is rule. It seems that those doing evaluation had no visible impact, evaluation theorists and evaluation practitioners do not communicate well. He extends his study by applying some parameters like Complexity, Premature, Interest, Funding, Culture and Cynical. Evaluation of Digital libraries is based upon assessing transformation of their context and it enhances changes in society [5]. Evaluated digital resources on five-point scale based on four collection criteria which are disciplines, comprehensiveness, teaching and usability and scores collect separated for e-journals, e-books, databases etc.. Here they used star rating system for analyzing the rank. Five stars indicate the highest and the star rating system is easy to know the exact status of digital resources. And this system support research and teaching by identifying digital resources [6].

2.1 Digital Libraries and its Services

Digital library is which having all the documents in format, it started to dominate current generation. Used many terms like electronic library, virtual library, gateway library, library of the future, library without walls are used [7]. The author explained digital library as an organized collection of all form of information sources in digital format which can be access, retrieve and select, create, organize, maintain and share. Smith defined digital libraries main objective is on document collection and digitization, he implies the reality that digital libraries are more chance of digital materials by retaining several qualities like user community, focus on collections, long-term availability, possibility of selecting, organizing, preserving and sharing resources of traditional libraries [8].

Libraries including private, public and government agencies and academic institutions have realized that digital libraries are accepted by users and started to use it rapidly [10]. Author said that one would agree that serving its users is the main aim of a digital library. Digital libraries are used in many ways and to support a mass of user who needs information working in different disciplines such as research, academic, business [11]. There are many reasons to develop digital library. When a digital library is designed the starting points proposed usage and the end user [12]. Study identified some reasons like to develop users access, to encourage the ideas for research, to encourage productivity, to provide higher capacity to maintain the information, to preserve the collections, to develop e-learning, to save time of the users by offering constant access, time flexibility, to develop online research, to provide good service to the users, to make users access simultaneously [13].

Digital library services is a collection of computing, storage, machinery worked together to provide information which was collected, stored with the help of software need to recollect,

imitate and extend the services to user in the digital form [14]. Digital library services are a kind of service that is delivered through networks. A higher scholarly communication, a development in the field of information science, new role of databases, shared cataloguing, computer networking within library society, online public access, abstracting and indexing services were provided by digital library [15].

Users need privacy and they expect flexible online environment, they need the information and services at any one time. For this he extends his theory with two points, first one is Users want continuous flow of collections and services, irrespective of where, by whom, in what format they managed and the second one is libraries should consider positioning of user-data technologies which was enable users to organize anetworked atmosphere that fulfil their individual needs [16]. Study highlighted excellence, value, conformance of specifications and meeting and exceeding the expectations of library users as the four features of quality services. Knowing library user needs is the best initiation on providing excellent library services [17].

Introduced information needs identifier (INI) to know the users having various disciplines' expectation on information they need. To implement information needs identifier first have to do a detail study of a subject of interest to the organization, then study of the organization and its environment, study of the immediate environment of the clients, study of the clients i.e. user, a formal meeting with user, identification and recording of user expectation and finally analyze with the findings [18].

3. Objectives of Study

- To know the user behavior on accessing electronic resources.
- To know the digital library collection of University library.
- To know the facilities available in library.
- To know how the users assessing e-resources.

4. Research Methodology

The study was descriptive design and quantitative design with survey method was adopted. The Population of the study was Public sector University libraries of Sindh Province. Simple sample technique a technique was used for data collection the respondents. Questionnaire with five point liker scale used as instrument for data collection from the respondents of the study. Here highly satisfied to highly dissatisfy were used to assess five -point scale from 1 to 5. Totally 75 questionnaires were distributed, out of them 67 represents (89.3%) were received from the respondents of the library. The collected data from this study was organized and analyzed using the computer software SPSS.

5. Data Analysis and Interpretation

5.1 Distribution of Respondents:

Variables	Frequency		Percentage
	Category		
Faculty	26		38.8

Students	41		61.2
Gender			
Male	34		50.7
Female	33		49.3
Educational qualification			
B.E	20		29.9
M.E	35		52.2
M.S	5		7.5
Ph.D	7		10.4

Table 1: Respondent Distribution

Table 1 deal with distribution of respondents. The data were collected from faculty and students. Among the category 38.8% of respondents were faculty and 61.2% of respondents were students. 50.7% respondents were male and 49.3% female users. The respondents were 52.2% were qualified with M.E followed by 29.9% were B.E qualification, M.S and Ph.D. qualified respondents are 7.5% and 10.4%.

5.2 Satisfaction with Digital Library Collection

	Frequency	Percent	Cumulative Percent
Yes	15	22.4	22.4
No	42	62.7	85.1
May be	10	14.9	100
Total	67	100	

Table 2: Satisfaction with Digital Library Collection

Table 2 shows whether the respondents are satisfied with the digital library collection. 22.4 % of respondents were satisfied with their library collection and 62.7% of respondents were not satisfied with their library collection and 14.9% were neither satisfied not dissatisfied with their library collections.

5.3 Digital Collection Responses

	N	Mean	Std. Deviation	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Error
DVD/VCD	67	3.24	1.169	-0.191	0.293	-0.816	0.578
OPAC	67	3.45	1.049	-0.345	0.293	-0.593	0.578

E-MAGAZINE	67	3.46	1.105	-0.25	0.293	-1.094	0.578
E-DAILIES	67	3.48	1.119	-0.443	0.293	-0.634	0.578
E- BOOKS	67	3.57	1.131	-0.366	0.293	-0.82	0.578
INSTITUTIONAL REPOSITORY	67	3.61	0.999	-0.553	0.293	-0.012	0.578
E-JOURNALS	67	3.61	1.1	-0.434	0.293	-0.62	0.578
VALID N (LIST WISE)	67						

Table 3: Digital Collection Responses

With reference to the digital collection of the library, the above table indicates that the respondents were highly satisfied with the E-Journals with the standard deviation value of 1.10, closely followed by Institutional repository with the mean value of 3.61 and E-books with the mean value of 3.57. However, the respondents are marginally satisfied with the e-dailies with the mean value of 3.48, e-magazine with the mean value of 3.46, and OPAC with the mean value of 3.45. The respondents are least satisfied with DVD/VCD collections at the mean value of 3.24.

5.4 Library Facilities for Digital Resources

	N	Mean	Std. Deviation	Skewness	Kurtosis		
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Time limit to access digital library	67	3.64	.949	-.203	.293	-.821	.578
High Speed Internet Connectivity	67	3.58	1.130	-.210	.293	-1.339	.578
Number of Computer systems in the library	67	3.54	1.146	-.188	.293	-1.398	.578
Wifi Connectivity	67	3.46	1.146	-.061	.293	-1.432	.578
Valid N (listwise)	67						

Table 4: Library Facilities for Digital Resources

Table 4 indicates that the users were highly satisfied with the time limit to access digital library with the mean value of 3.64, closely followed by high speed internet facility with the mean value of 3.58. However, the respondents are marginally satisfied with the number of computer systems in the library with the mean value of 3.54 and respondents were least satisfied with wifi connectivity with the mean value of 3.46.

5.5 Accessing the E-Resources

	N	Mean	Std. Deviation	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Error
How easy it is to download and print e-books?	67	3.58	1.233	-.495	.293	-.629	.578
Finding E-books via the library website is	66	3.56	1.178	-.295	.295	-.811	.582
Is it easy to read e-books for you?	67	3.48	1.235	-.345	.293	-.789	.578
Is it easy to search an digitized materials what you need?	67	3.45	1.210	-.086	.293	-1.029	.578
Valid N (listwise)	66						

Table 5: Accessing the E-Resources

Table 5 represents that the respondents felt very easy to download and print e-books with the mean value of 3.58, closely followed by finding e-books via library website with the mean value of 3.56. However the users were felt somewhat easy to read e-books with the mean value of 3.48 and the respondents felt very difficult to search an digitized materials what they need with the mean value of 3.45.

5.6 Library Staff Behavior

	N	Mean	Std. Deviation	Skewness		Kurtosis	
				Statistic	Std. Error	Statistic	Std. Error
Time manner of the library staff	67	3.1	1.116	0.462	0.293	-1.215	0.578
Interest on giving information about the needs	67	2.85	0.957	0.735	0.293	-0.643	0.578
Quality of Service Provided by library staff	67	2.82	0.999	0.937	0.293	-0.306	0.578
Staff's behavior to students	67	2.75	0.823	0.844	0.293	-0.028	0.578
Library Staff Approach	67	2.73	0.978	1.171	0.293	0.26	0.578

Valid N (listwise)	67						
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Table:6 Library Staff Behavior

With the reference to the library staff attitude, the above table 6 represents that the respondents were highly satisfied with the time manner of the library staff with the mean value of 3.10, closely followed by the interest on giving information about the needs. However, the respondents were marginally satisfied with the quality of service provided by library staff with the mean value of 2.82 and staff's behavior to the students with the mean value of 2.75. The respondents were highly dissatisfied with library staff approach with the mean value of 2.73.

6. Discussion and Finding

The study found that users were generally satisfied with their library digital collections like e-books, e-journals, institutional repositories, e-magazines and e-dailies. At the same the study observed that the respondents are least satisfied with library OPAC and DVD/CDs. This study recommending that, the engineering colleges should improve their audio visual collections as like print materials and make the OPAC should be in user friendly.

Results of this survey revealed that the respondents were highly satisfied with the time limit to access digital library; respondents were satisfied with high speed internet connectivity. However, the respondents show their dissatisfaction level on Wi-Fi connectivity and they expecting more number of computers need to be placed in the library. About the Wi-Fi connectivity in library premises means out the library building. If Wi-Fi connection will provide outside the library building premises, its affect users reading habits and library culture too.

The study reveals that the users felt very easy to download and print e-books, the respondents felt easy to finding e-books through library website, the users felt difficult to read e-books because some may felt irritation on their eyes, head-ache by seeing monitor continuously and the respondents felt very difficult to search a digitized material whatever they need, because the information overload, sometimes other website may open which is not relevant makes users felt very difficult.

Based on the survey the respondents felt highly satisfied with the time manner of the library staff, the users shows their satisfaction level on interest on giving information about the user's need, somewhat they showed their dissatisfaction level quality of service provided by library staff, staff's behavior to the students and at last they felt highly dissatisfied on approach of the library staff.

Conclusions

This study concluded user's shows their interest in accessing e-resources; with their own interest with the support of library staff during the period of pandemic COVID-19, the users learn how to access digitized materials with the internet facilities by library staff through different communication channels. But users face the problems through Wi-Fi internet outside the library building, the users expecting more e-resources and digital collections to access at any time through VPN account at their homes. Reading physical book may give some satisfaction to readers and they believe that nothing can replace a physical book. Information is more valid

when it gets at right time, so the users' expect the library staff should be more interest on giving the information about their needs and approach must be good online services.

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