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Assessing Effectiveness of Electronic Services in University Libraries in Punjab, Pakistan

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Assessing Effectiveness of Electronic Services in University Libraries in Punjab, Pakistan

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Abstract

The study aimed to assess effectiveness of electronic services in university libraries in Punjab, Pakistan. The study adopted the quantitative research method to achieve its objectives. The quantitative data were collected through the questionnaire from library users in eight public universities by employing the convenience sampling technique. The findings of the study reveal that the libraries did not offer adequate electronic services. The respondents did not seem satisfied with the electronic services as most of them did not give their opinions about the services. The findings of the study will be helpful for university authorities and the library administration to take necessary measures to design and offer electronic services keeping in view users' needs and expectations.

Keywords: Library services, electronic services, user satisfaction, university libraries, Punjab, Pakistan

Introduction

The introduction of information and communication technology in libraries has led to a revolution in libraries and information centers. It has changed both the way the information is created, preserved, organized and disseminated, and the way users access and use the information. Users prefer to get their information needs fulfilled remotely at their location instead of visiting the libraries physically. Keeping in view users' needs and expectations, all types of libraries across the globe have started to offer services electronically over the Internet. It has enhanced quality, effectiveness, speed of the services, which creates faith and confidence about the services of an organization among users, and have a great bearing on users' satisfaction (Vinitha et al., 2006). The basic function of an academic library is to support and facilitate teaching, learning and research activities of the academic institution. In order to achieve this objective, the academic libraries are required to embrace technological innovations to design and offer electronic services to serve their user community in a better and efficient way.

Literature review

Electronic services in libraries

Generally, there are two types of library services, i.e., library public services for users and library technical services for users. The first type of services include reference service, current awareness service, selective dissemination of information service, documents delivery service, circulation service, bibliographic information and special collection service for users. Whereas, the second type of services consist of cataloguing, classification, acquisition of material, indexing and abstracting services, and management of the library environment. These two types of services can be performed efficiently by employing the information and communication technology (Mayega, 2008). According to Mahapatra (1985), electronic services

offered by libraries include reference service, current awareness service (CAS), selective dissemination of information (SDI), online search service, printed indexes, inter library loan and stock verification. Ekere, Omekwu and Nwoha (2016) have noted that services in the library incorporate the ordinary traditional library and information services, and other worldwide information services provided through PC and telecommunication frameworks. Different electronic services are provided by the libraries which include: online reference services, cataloguing and classification service, e-mail services, online customer care services, online internet search services, management of online databases, technical training in ICT for staff and users, news groups/dialogue databases, interoperability services, awareness and workshop services, online inter-library loan services, subscription services; audio and video communication services, electronic document delivery services, digitized finding aids, such as online indexes, bibliographies, online cataloguing and classification services. Electronic services are beneficial as they,

- “increase the operational efficiency;
- relieve professional staff from clerical/repetitive works;
- improve the quality of library services;
- provide new services, which are otherwise not possible ,e.g., OPAC;
- improve the management of information products and services;
- facilitate wider access to information for users;
- facilitate wider dissemination of information products and services;
- participate in resource sharing/library networks;
- enable easy communication with other libraries and professionals”.

Users' satisfaction with electronic services

Bergman and Holden (2010) have noted that users' satisfaction is a method of assessing effectiveness of library services. The reviewed literature reveals that a number of studies have been carried out to explore users' satisfaction with library electronic services across the globe. For example, Mirza and Mahmood (2012) conducted a survey to assess the effectiveness of electronic services on the basis of users' satisfaction in general university libraries in Lahore and Islamabad, Pakistan. The study found that most of the students used various electronic services offered by the libraries and were satisfied with them. Thanuskodi (2012) carried out a study to explore the use of electronic resources and services in terms of users' satisfaction in Anna university libraries in Tamil Nadu, India. He found that the users were faced with a number of problems to utilize electronic resources and services, which needed to be addressed in order to enhance the usage of the resources and services. Awwad and Al-Majali (2015) investigated the determinants of use behavior regarding electronic services among students in Jordanian universities, and discovered that students were reluctant to use the electronic services. The major reason behind the students' reluctance was the lack of organizational and technological basis that support the use of electronic resources. They recommended to provide required organizational and technological support to students to encourage them to utilize the services. The study of Anyim (2018) found that the majority of the respondents were dissatisfied with digital library services in universities in Kogi State, Nigeria. Dalbehera (2020) assessed service quality of web-based services from the research scholars' viewpoints in Siksha 'O' Anusandhan (SOA) University in Bhubaneswar, Odisha, India. Younus and Nadeem (2021) carried out a study to assess effectiveness of digital reference service in university libraries in Punjab, Pakistan. The findings of

the study revealed that the users viewed the service provided by the libraries as of somewhat high quality.

Objectives of the study

The objectives of the study are:

1. To identify electronic services offered by university libraries in Punjab, Pakistan.
2. To assess effectiveness of electronic services in university libraries in Punjab, Pakistan.

Research methodology

The study adopted the quantitative research method to achieve its objectives.

On the basis of the literature review, a questionnaire was designed to collect necessary quantitative data from users (postgraduate students) of libraries in eight public sector universities in South Punjab, Pakistan, i.e. the Islamia University of Bahawalpur, Government Sadiq College Women University, Bahawalpur, Bahaud din Zakariya University, Multan, Women University, Multan, Muhammad Nawaz Sharif Agricultural University, Multan, Muhammad Nawaz Sharif Engineering and Technology University, Multan, Khawaja Fareed University of Engineering and Information Technology, Rahim Yar Khan and Ghazi University, Dera Ghazi Khan. The study employed the convenience sampling technique to collect data from the respondents.

Data analysis

The quantitative data collected through the questionnaire was entered into IBM SPSS, Statistics, Version 21 for analysis. Descriptive statistics (i.e. frequency, percentage, mean and standard deviation) have been used to analyze the data. The analysis of data is presented under the following headings.

Response rate

In this study, the questionnaire was employed to gather data from users of eight public sector university libraries in Punjab, Pakistan. Out of 800 respondents who were delivered the questionnaires, 667 respondents filled and returned the questionnaire with a response rate of 83 percent. Amongst these 667 respondents, the majority of the respondents 100 (15%) belonged to Women University, Multan, 98 (14.7%) to the Islamia University of Bahawalpur, 97 (14.5%) to Khawaja Fareed University of Engineering and Information Technology, Rahim Yar Khan, 92 (13.8%) to Government Sadiq College Women University, Bahawalpur, 82 (12.3%) to Bahaud din Zakariya University, Multan, 71 (10.6%) to Muhammad Nawaz Sharif Agricultural University, Multan, 67 (10%) to Muhammad Nawaz Sharif Engineering and Technology University, Multan and 60 (9%) to Ghazi University, Dera Ghazi Khan (Table 1).

Table 1: Response rate by institution (N=667)

Universities	Frequency	Percentage
Women University, Multan	100	15.0
The Islamia University of Bahawalpur.	98	14.7
Khawaja Fareed University of Engineering & Information Technology, Rahim Yar Khan	97	14.5
Government Sadiq College Women University, Bahawalpur	92	13.8
Bahaud din Zakariya University, Multan	82	12.3
Muhammad Nawaz Sharif Agricultural University, Multan	71	10.6
Muhammad Nawaz Sharif Engineering and Technology University, Multan	67	10.0
Ghazi University, Dera Ghazi Khan	60	9.0
Total	667	100.0

Profile of the respondents

Among 667 respondents, 371 (55.6%) respondents were female and 296 (44.4%) respondents were male. As regard respondents' age groups, the majority of the respondents 349 (52.3%) were between 20-25 years of age, 139 (20.8%) between 26-30 years of age, 129 (19.3%) respondents were below 20 years, 32 (4.8%) between 31-35 years of age, 13 (1.9%) between 36-40 years of age and 5 (0.7%) respondents were above 40 years of age. Out of 667 respondents, the majority of the respondents 481 (72.1%) were undertaking a Master's degree program, 157 (23.5%) were doing MPhil and 29 (4.3%) Ph.D. in different subject areas (Table 2).

Table 2: Profile of the respondents (N=667)

Variables	Frequency	Percentage
Gender		
Female	371	55.6
Male	296	44.4
Age group		
20-25 Years	349	52.3
26-30 Years	139	20.8
Below 20 Years	129	19.3
31-35 Years	32	4.8
36-40 Years	13	1.9
Above 40 Years	5	0.7
Program of study		
Masters	481	72.1
MPhil	157	23.5
PhD	29	4.3

Duration of library use

The respondents were asked to indicate how long they had been using their university libraries. Amongst 667 respondents, the majority of the respondents 171 (25.6 %) had been using the library for 2 years, 170 (25.5%) for 1 year, 148 (22.2%) for less than 1 year, 93 (13.9%) for 3 years, 50 (7.5%) for 4 years, 19 (2.8%) for more than 5 years, 16 (2.4%) for 5 years (Table 3).

Table 3: Duration of library use by users (N=667)

Duration	Frequency	Percentage
2 years	171	25.6
1 year	170	25.5
Less than 1 year	148	22.2
3 years	93	13.9
4 years	50	7.5
more than 5 years	19	2.8
5 years	16	2.4
Total	667	100.0

Purpose of using the library

The participants were asked to indicate the purpose of using the library. Amongst 667 respondents, the majority of the respondents 282 (42.3%) informed that they used the library for study, 147 (22%) for preparing class assignments, 141 (21.1%) for research, 64 (9.6%) for updating knowledge, 17 (2.5%) for recreation, 11 (1.6%) for professional development, while 5 (0.7%) respondents reported that they used the library for some other purposes (Table 4).

Table 4: Purpose of the library use (N=667)

Purpose	Frequency	Percentage
Study	282	42.3
Class assignment	147	22.0
Research	141	21.1
Update knowledge	64	9.6
Recreation	17	2.5
Professional development	11	1.6
Other	5	0.7
Total	667	100.0

Electronic services in libraries

The respondents were asked to give their opinions about availability of various electronic services in their respective libraries by using a five-point Likert scale (1=Not available, 2=Slightly available, 3=Moderately available, 4=Adequately available, 5=Extremely available). The respondents were of the view that their libraries had a slight level of availability of electronic reference service (M=2.55, SD=1.116), online information literacy service (M=2.46, SD=1.124), electronic documents delivery service (M=2.43, SD=1.075) online current awareness service (M=2.43, SD=1.182), virtual private network (VPN) service (M=2.27, SD=1.208), online book renewal (M=2.20, SD=1.278), online inter library loan service (M=2.17, SD=1.231), online book reservation (M=2.16, SD=1.238) and online fine payment service (M=2.00, SD=1.207) (Table 5).

Table 5: Availability of electronic services in libraries (N=667)

Sr.no	Electronic Services	N	Mean	SD
1	Electronic reference service	667	2.55	1.116
2	Online information literacy service	667	2.46	1.124
3	Electronic documents delivery service	667	2.43	1.075
4	Online current awareness (CAS) service	667	2.43	1.182
5	Virtual private network (VPN) service	667	2.27	1.208
6	Online book renewal	667	2.20	1.278
7	Online inter library loan service	667	2.17	1.231
8	Online book reservation	667	2.16	1.238
9	Online fine payment	667	2.00	1.207

Respondents' satisfaction with electronic services

The participants were asked to give their opinions regarding their satisfaction with various electronic services in their respective libraries by using a five-point Likert

scale (1=Very dissatisfied, 2=Dissatisfied, 3=Neutral/No opinion, 4=Satisfied, 5=Very satisfied). The researchers considered the respondents to be satisfied with those electronic services which have mean score of 3.5 or above. As shown in table 6, the respondents were not satisfied with electronic services as most of them did not give their opinions about electronic reference service (M=2.85, SD=1.017), online current awareness service (M=2.79, SD=1.033), electronic documents delivery service (M=2.75, SD=1.008), online information literacy service (M=2.72, SD=1.093), virtual private network (VPN) service (M=2.68, SD=1.075), online book renewal (M=2.59, SD=1.073), online inter library loan service (M=2.58, SD=1.061), online book reservation (M=2.56, SD=1.056) and online fine payment service (M=2.55, SD=1.091).

Table 6: Respondents' satisfaction with electronic services (N=667)

Sr.no	Electronic Services	N	Mean	SD
1	Electronic reference service	667	2.85	1.017
2	Online current awareness (CAS) service	667	2.79	1.033
3	Electronic documents delivery service	667	2.75	1.008
4	Online information literacy service	667	2.72	1.093
5	Virtual private network (VPN) service	667	2.68	1.075
6	Online book renewal	667	2.59	1.073
7	Online inter library loan request	667	2.58	1.061
8	Online book reservation	667	2.56	1.056
9	Online fine payment	667	2.55	1.091

T-test was performed to determine the difference between the opinion of male and female participants with regard to their satisfaction with electronic services. The significant difference between the opinions of male and female participants was found about their satisfaction with electronic services as value 0.001 is less than significant value of 0.05 (Table 7).

Table 7: Result of t-test regarding respondents' satisfaction with electronic services with respect to gender

Statement	N	Gender	Mean	t	Sig.
Users' satisfaction with	296	Male	23.5473	1.659	.001
electronic services	371	Female	24.4798		

Major findings and discussion

Owing to the development of information and communication technologies, traditional library services have transformed to modern library services such as, access to electronic or digital collections, web portals, personalized services, online library instruction, e-reference service, online document delivery, helpdesk services and electronic publishing. Today, academic libraries across the globe offer electronic services to their users in order to satisfy their information needs (Dalbehara, 2020). Effectiveness of library services can be assessed through users' satisfaction (Bergman and Holden, 2010). The findings of the present study reveals that various electronic services such as, electronic reference service, online information literacy service, electronic documents delivery service, online current awareness service, virtual private network (VPN) service, online book renewal, online inter library loan service, online book reservation, online fine payment service were slightly available in the libraries. The respondents did not seem to be satisfied with various electronic services in the libraries as most of them did not provide their opinions about them. There was no significant difference between the opinions of male and female participants about their satisfaction with electronic resources in the libraries. The libraries need to develop and offer adequate electronic services to users to satisfy their information needs.

Conclusion

The study aimed to assess effectiveness of electronic services in university libraries in Punjab, Pakistan on the basis of users' satisfaction. In order to achieve objectives of the study, the quantitative research method was adopted. The quantitative data were collected through the questionnaire from users of eight public university libraries by employing the convenience sampling technique. The results of the study reveal that the academic libraries had not designed and offered adequate electronic services. The respondents did not seem satisfied with electronic services in the libraries, as most of them did not give their opinions about the services. The findings have implications for university authorities and the library administration to design and offer adequate electronic services keeping view users' needs and expectations.

Recommendations

The following recommendations are made:

1. The university authorities should enhance libraries' budgets to enable them to design and offer electronic services keeping in view users' needs and expectations, and improve their ICT infrastructure.
2. The libraries should enhance ICT infrastructure including computers, internet connectivity, Wi-Fi, in order to offer electronic services efficiently.
3. The libraries should design and arrange training sessions for users to train them in using electronic services effectively.
4. The libraries need to publicize their electronic services through some effective marketing strategies in order to make users aware of the services and their benefits.
5. The libraries should provide necessary training to their staff handling electronic services to enable them to manage the services efficiently.

6. The libraries should make arrangements for an alternative source of electricity in order to cope up with frequent power outages in the country to ensure an uninterrupted access to the services.

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