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Abstract

The critical destinations of this study were to inspect the impact of Automation on users' perception of library services at Government College University Faisalabad. The present study has three research objectives including (a)To assess the user's perception regarding library automation at GCU Faisalabad, (b)To check the level of satisfaction of the users regarding library services at GCU Faisalabad, and (e)To measure the problem faced by the users after automation of library services at GCU Faisalabad. To meet the objectives, the investigator used a quantitative research approach and developed a questionnaire for the data collection instrument. The convenience sampling technique was used for collecting data from the target population. There were 16570 students enrolled in BS, Master, M.Phil, and Ph.D. degree programs. The sample size was 391(2.35 % of the total population) students. There were 375 out of 391 students who filled the questionnaire. Hence, the response rate was 95.9 %. The results revealed that more than 75% percent of the participants like to support and use automated library services and hybrid services. Further respondents gave their points of view that they had a trend to use automated services to save time. Moreover, the result of this study revealed that the participants were well aware of the library automated services, offered by GCU libraries. This research points out that most of the total participants were satisfied by the automated services, offered by the GCU library.

Background and Introduction to the Study:

The library is considered the focal point of any type of educational institution. A well-funded and supported library is the base of an up-to-date educational setup. The educational library or information center plays a significant job in giving data administrations to users. Scholarly libraries are a focal point of information and encouraging exercises where understudies and instructors investigate a colossal measure of information. In typical libraries, clients need to invest a great deal of energy in looking for data utilizing library staff. But in the current era of ICT, computers are used for daily library operations, saving time and avoiding duplication of work, and creating flexible and efficient library services (Sharma & Parasar, 2014). In the age of information technology, it is predictable that academic libraries will use ICTs to deliver info are very rapidly and scientifically than at any other time. The motorization of library "housekeeping" tasks is a significant capacity in this unique situation, "automation", when acted in a library, alludes to the computerization of exercises. Library automation is a process of automating traditional library functions/activities. Library services include different services like " acquisition, cataloging circulation, serial control system" and other related activities.

The present data age requests libraries adjust to mechanization administrations in library activities and administrations for their improvement viable and productive administrations to the client local area. Such automation not just offers extensive help to library staff for their standard work execution, yet additionally gives offices, for example, straightforward tasks through the data set availability across topographies utilizing the Internet (Das & Chatterjee, 2015). In the PC age, the working of library tasks and the executives have been exceptionally beneficial, and what's more, clients can without much of a stretch cycle countless information. From the assortment to the dispersion, a hint of immortality and openness of material through PCs gives extra impulse and dynamism to the whole library organization. Thusly, the Library Mechanization framework prompts an incredible simplicity of work and environmental factors (Tabusum, 2013).

Background of GCU Faisalabad

Government College University, Faisalabad has gotten the main community for learning and examination in a brief timeframe. The University, with its dynamic personnel and imaginative educational plans, has become an impetus for scholarly, social, and modern change. It serves the diverse needs of society by providing education in almost all major fields of learning. Government College journey began as an elementary school in 1897 in the current Govt. building. Women's College, Karkhana Bazar, Faisalabad. The institute was stimulated to High-Level School and Transitional College in 1905 and 1924 separately. It was brought to undergrad level up in 1933 and graduate controls were presented in 1963. The long street that started with a modest starting arrived at its summit when it was conceded College rank in October 2002. Government College University, Faisalabad has a long history of greatness and qualification as a foundation. Famous scholastics and prominent characters have served this foundation in different limits at different stages in its set of experiences. They have delivered extraordinary faculty who have acquired incredible distinction for themselves as well as for the country.

GCU Faisalabad Library

The University Library goes about as a passage to data and information. Government College University Faisalabad has a rich library framework that remembers a principal library and eighteen libraries for colleges, divisions, organizations, institutes, and colleges. The mission of the GCUF Library is to accomplish greatness in the arrangement and advancement of data administrations to meet the exploration, educating, and adapting requirements of the University. The library is focused on aiding understudies and staff exploit these assets. Powerful utilization of data assets is an important precondition for scholastic and even long-lasting achievement. The basic role of the libraries is to offer superb assistance to understudies and personnel that will advance the getting the hang of, educating, and research insight of every client at Government College University Faisalabad.

The GCUF Library's assortment of scholastic materials serving the requirements of the university's local area, going from understudies to staff individuals, personnel/researchers and visiting scientists. The all-out assortment of all libraries is around 85,000/volumes. Libraries shift

generally in size and number of possessions, yet incorporate efficient assortments of extensive worth. Its book assortment contains uncommon versions, reference volumes, basic aides, and the most recent deliveries. It has an enormous assortment of examination diaries/periodicals, including diaries. Clients can likewise discover duplicates of the day-by-day papers for reference. Buy in flow diary titles from around the world to address the issues of understudies, educators, and specialists.

Most libraries have an open rack framework and benefactors can get free admittance to library materials. PCs with admittance to library assets and the Web are primarily accessible in Libraries. Admittance to investigate is accessible to the whole college local area as inventories, authorized library assets, and sites. Need of utilization is given to understudies, personnel, and staff leading examination. Intrigued library staff is accessible to exhort and guide the supporters. Data on the library use strategy is accessible at the library dissemination work areas.

Statement of Problem

This is an information age; libraries or information centers anticipate the use of technologies to make the information available for their users. Automated library housekeeping acts as essential progress towards ICT. A variety of library software has come into being which supports to automate the library operational activities. The real purpose of the library is to provide access to appropriate information to its users at their required time. By dint of automated library operations, libraries can save the user's time via speedy processing of services, and delivery of error-free services. Further, it becomes very easy to operate the library housekeeping procedures (Pandya & Darbar, 2016).

Another reason behind the automation of library resources and services is the immense proliferation of information. Due to the increase in user's information demand and limited library budget, it becomes very difficult for the library to acquire every kind of information resource to fulfill the information needs of the consumers. Library resource sharing is one solution to this problem. Library automation services allow other libraries or users to share their information through Web OPAC (Sharma & Parasar, 2014).

In Pakistan, although there have been many instances of the study published at the national and international level in which researchers have tried to uncover the impact of automation on users' perception regarding library services, there is no single study has published on the understudy region of Pakistan. Therefore, the main purpose of this study was to explore the impact of automation on users' perception regarding the library services of the Government College University of Faisalabad Pakistan.

Significance of the Study

This study will play a significant role in using Library Automation Software and will become helpful for the users in attaining better services offered by GCU Faisalabad library. Hitherto, no study on the impact of automation on users' perception of library Services has been conducted on GCU Faisalabad. This study will be beneficial for the policymakers, the administration, and the library professionals because there are a lot of advantages that can be appreciated by a library when it embraces open-source programming while computerizing its library administrations. This study also highlights the barriers and disadvantages of automation of library services which can be fixed in the future.

Delimitation of the study

This study will be delimited to the library users who are currently enrolled in BS, Masters, M.Phil, and Ph.D. programs of all campuses of GCU Faisalabad.

Research Questions:

1. What is the user's perception regarding library automation at GCU Faisalabad?
2. What are the different kinds of services offered by the library of GCU Faisalabad?
3. What are the problems faced by the users after the automation of library services at GCU Faisalabad?

Related Studies:

A lot of literature has been published on the impact of automation on users' perceptions about library services. Researchers have visited different institutional libraries to consult the books, journals, and databases. Internet is one of the most important sources of information through which the authors find out the relevant literature on a given topic which has been written by researchers, authors, and theorists. The researchers also consult the HEC National Digital Library of Pakistan, which bears access to various databases e.g. Science Direct, Springerlink, Emerald, Wiley Blackwell Journals, ProQuest, etc.

Library

A library is a great place for everyone to visit, specifically for students. It is not just a place to read books but a spot for students to do numerous exercises that are identified with their studies. They go to the libraries to understand books, find new data, and have group gatherings, etc. According to Curzon and Richards (2007), a library is a room or building that has books that can be taken or acquired. Young (1983) defines a library as "A library is a collection of resources in a variety of formats that are (1) organized by information professionals or other experts who (2) provide convenient physical, digital, bibliographic, or intellectual access and (3) offer targeted services and programs (4) with the mission of educating, informing, or entertaining a variety of audiences (5) and the goal of stimulating individual learning and advancing society as a whole."

Automation

Automation means the utilization of automatic machinery or instruments in manufacturing or other processes or facilities. Further, various authors and organizations have defined the term automation. According to IBM "Automation is the function of technology, programs, robotics or processes to achieve outcomes with minimal human input". Likewise, the International Society of Automation defines that the formation and appliance of technology to monitor and control the production and delivery of products and services. According to Weiner and Simpson (1989)

"application of automatic control to any branch of industry or science by extension, the use of electronic or mechanical devices to replace human labor".

Library Automation

There are various authors, theorists, researchers and professional associations have defined the term library automation as Ahmad and Iqbal (2009) define that "When computer and information technology are used in library operations, such as for acquisition, cataloging, circulation, and serial control, it is considered an automated library". According to Uddin (2009) "Library computerization might be characterized as the utilization of programmed and self-loader information preparing machines (PCs) to perform customary library housekeeping exercises like procurement, dissemination, and reference and serials control. Today "Library Computerization" is utilized to depict the automation of library exercises utilizing PC". According to Lam (2001) " library automation is the use of computer and networking technologies in the library. Library automation responds in a great measure to the requirements placed on the academic library by effectively harnessing the power of technology in computerizing its operations, to strengthen the intellectual mission of its parent organization". In simple words, operating all library operations like cataloging, acquisitions, and circulation of books through technologies, computers, or other devices are called library automation.

Bhardwaj and Shukla (2000) expressed that library mechanization is a typical term that is utilized to imply the various activities with improving the nature of items and administrations of libraries and data focuses. It speeds up, effectiveness and competency of library staff, and it saves the human asset to bypass some daily schedule, repeating and accounting assignments like composing, recording, arranging and check the duplication, and so forth. As per Salmon (1975) "library automation is the use of automatic and semiautomatic data processing machines to perform such traditional library activities as acquisition, cataloging, and circulation. Although these activities are not necessarily performed in traditional ways, the activities themselves are those traditionally associated with libraries. Library automation may thus be distinguished from related fields such as information retrieval, automatic indexing, and abstracting and automatic textual analysis".

User's Perception about Library Automation

A bunch of studies has been published on users' perceptions about library automation in academic libraries, as Aswal (2006) carried out a study in which he tried to know about the perception of library professional regarding library automation, the findings of study articulates that library automation is very important to enhance the librarian's efficiency because due to automated library services staff can increase their output, it also makes possible the development of technology and makes easy access to any kind of information via the internet. Ossai-Ugbah (2010) conducted a surveyed research to examine the perception of library users. The result reveals that the majority of the library users have perception regarding the library automation services is that there is a considerable relationship between library automation services and their educational and academic disclosure because students got their relevant information from the library within their required time just because of the automat library services.

It is in line with the above Sudhamani (2010) also submitted a report to the Rajiv Gandhi University of Health Sciences, India regarding Library automation in which he stated that library automation upgrades the quality, speed, and effectiveness of library administrations; improves the admittance to separate clients; makes conceivable the spreading of enormous measure of data items and administrations, works with assets dividing between libraries and its clients, improves the administration of physical and monetary assets and empowers quick correspondence with different curators. Jayaprakash and Balasubramani (2011) designed and administered a questionnaire to examine the automation in university libraries in Tamil Nadu, India. The result of the study concludes the users' perceptions that library automation is very important for smooth library function and also helps to save the precious time of the users. Further, Ossai-Ugbah (2010) Conducted a study, he revealed that the majority of students agreed that there is a vital connection between academics' achievements and the use of library automated services, also they were highly satisfied with library automated and electronic services.

Anas, Iqbal, and Ahmad (2014) have found the impact of library automation on managing the library services of academic institutions of Aligarh, the data was collected through a survey research method from participants. Four libraries participated in this research and out of four, three libraries were partially automated and one was fully automated. The results revealed that the

perception of library users regarding library automation was excellent because in their point of view the automated library services were much better than the manual system. Further, Pandya and Darbar (2016) tried to find out the user's perception regarding library automation, the result explored that the majority of library users were aware of the use of library automation services. Nayana (2019) Conducted a study to check the status of library automation in academic libraries of Bengaluru city of India, as per his study there were different kinds of library automatic services which were offered by the library to its users like online public access catalog (OPAC), circulation services and serial services. The result found that 50 % of total libraries had offered computerized circulation services to their users, while 44.4 % of libraries offered online catalog services and 8.33 % offered serial services. The study further revealed that libraries users' points of view were positive because they responded that they could save their time while getting their relevant information from the library with the help of computerized library services.

User's Satisfaction Level about Library Automated Services

Improving user satisfaction creates an important impact on a fruitful help-based association including libraries, because fulfilled clients stay committed, have good sentiments, and propose assistance to other people. It is just conceivable when library heads connect with clients and perceive their data needs. It is continuous in the created nations to lead the client fulfillment studies in libraries to check and improve the level and nature of library administrations that are offered to clients. Such sort of overview can assist them with looking at the potencies and issues of libraries and allow an opportunity for library organizations to improve client fulfillment. While in immature nations, the client's insights and fulfillment in regards to library administrations have been disregarded by the scientists, essayists, and library experts. Omeluzor and Oyovwe-Tinuoye (2016) contended that the osmosis of the appropriate automation of library activities and activities empowers the clients of scholarly libraries to get access to their applicable data whenever and area. For example, getting to the current data from electronic information bases and getting a fast reaction from the to entomb library advance and archive conveyance administrations through email made simple with the utilization of web and PCs.

Various studies have defined the term of user's satisfaction in their ways. As Zeithaml, Berry, and Parasuraman (1993) say that the user's satisfaction is a process of assessment of services quality that is given to the customer. Further Kotler and Armstrong (1996) stated that the level of how the person felt results from comparing a product's perceived performance or result in infringement to his hopes. While Oliver (1999) defines that user satisfaction after purchase assessments of products and services with the expectations of the user which he expected before purchase. Dedication to user satisfaction is a continuous process. Nunekpeku (2019) Conducted a study in which they try to know the satisfaction level of library users. The result of this study showed that more than half of the consumers of Sam Jonah library were fairly satisfied with the library's automation. The majority of patrons have access to internet / Wi-Fi and reference services. Also providing the services of photocopying, electronic databases or resources, institutional repository, library website, borrowing of books (circulation), and OPAC but these services were not used by users effectively. The researcher recommended that enhance the users' awareness about the use of library services can improve the usage. Similarly, Hussaini, Vashistha, Jimoh, and Jimah (2017) emphases in their research that librarians can enhance the satisfaction level of users through automating the library operations like acquisition, Online Public Access Catalog, Circulation, and serial services.

Pandya and Darbar (2016) conducted a study in which they explore that users knew about the library automated system. Further, they stated that users were very satisfied with the fast services of the library after automation because they are getting information very rapidly which directly affects the timely completion of their task. Mairaj and Naseer (2013) Conducted a study under the title of "Library services and user satisfaction in developing countries: a case study". The result revealed that huge numbers of users of Punjab Institute of Cardiology (PIC) Lahore were satisfied with library reference and circulation services, staff behavior, library collection, and infrastructure. They also suggested that the availability of E-library services, new collections; comfortable furniture, and a good internet connection. They further conclude that the library should improve all those services which concerned with users and also sustain and make strong the library services which satisfied the users.

Saini, Bhakar, and Singh (2014) have investigated the user satisfaction of engineering colleges of Jaipur city. The results showed that overall students of engineering colleges were satisfied with library services because the library adopted some new technologies to automate the library operations to fast delivery of services to their users. Bhatti and Asghar (2010) surveyed a study in which they uncovered the satisfaction level of medical students of Quaid-e-Azam Medical College, Bahawalpur. The outcome showed that as per users the library services and resources were not enough. The major part of respondents was partially satisfied with library reference services, current awareness services (CAS), Selective Dissemination of information (SDI) services, indexing and abstracting services, and circulation services but they were not satisfied with Interlibrary loan (ILL) and users education and translation services. The research further recommended that through library automation, better physical facilities, and high quality of internet connection library can raise the satisfaction level of its users.

According to Nilsen (2006), Data Correspondence and Innovation gives numerous chances to Library and Data experts to fulfill to their clients, as reference administrations are one of the fundamental administrations which give by each library proficient in any sort of association. The characteristics of assortment and reference administrations have importance in contrast with gaining a greater part of the assortment. A Library expert can raise the fulfillment level of his customer capably if he has powerful intrapersonal relational abilities, comprehend the data needs of clients, and convey the necessary data within the time limit. Furthermore, Martensen and Grønholdt (2003) audited the distributed writing and center gathering, he recognized some critical components to improve the library administrations quality, like electronic assets (for example online inventory, site, information bases search frameworks, and so forth), library climate (for example environment, understanding room and library hours), specialized offices (PC, printer, and so on), printed assortments, other library administrations (for example client courses) and the human side of client administrations (for example staff information capacity, accommodation, and invitingness).

Challenges / Obstacles / Problems in Automate the Library Services

As per previously published literature, there are some major problems faced by library users and staff regarding the use of library automated services. As Vohra (2011) stated that OPAC is one of the automated services which offered to library users, so that users can search his relevant information sources form the library, further this services can be enhanced by using the internet and student can get the access of from remote area, but some problems which hurdles in the use of OPAC that was lack of knowledge regarding the use of library service, no output but books existed in the library, do not know about the narrow and expand the search. While Adegbore, 2010) conducted a study in two Nigerian University Libraries and find out some problems which are big hurdles in the library automation like problems in software and hardware, untrustworthy electric power supply, insufficient financial budget, lack of training opportunities for library staff, and users.

Further, Sharma (2007) observed that in different libraries the librarians have low interest in their libraries automate because they think that libraries are still as a store of books. They have an interest to purchase expensive books, journals, and CDs but do not take any interest to automate the library operations for rapid and successful services. Sani and Tiamiyu (2005) Find out various obstacles which militate against the library automated services at the universities level like lack of budget, lack of power supply, and internet connectivity. He further observed that insufficient human resources to automate the whole library system. The participants of this research were partially satisfied with computerized systems and MIS-related databases but they were not satisfied with automated library services due to the above-discussed problems.

Gap in Literature

As per the review of the previously published literature, we conclude that there is a bunch of literature which has been published internationally by different authors, researchers, and theorists on the Impact of Automation on User's Perception about Library Services, but they focused on a single concept like library automation services for students, library automation challenges. Also, literature revealed that the Impact of Automation on User's Perception of Library

Services in Pakistani scenarios was less focused as compared to the other fields of life. There were a few studies that cover all concepts. Therefore, this research will cover almost all concepts at the local level, especially in Government College University Faisalabad.

Research Methodology:

The aim of this section of research provides the details about the research design and procedure of methodology that were adopted for this research. This part of the research contains data collection instrument, data collection procedure, population, sample size, sampling techniques, and data analysis techniques which were used to achieve the goal of this study.

Research Design and Procedures

The objective of this study is to examine the impact of automation on the user's perception of library services at GCU Faisalabad. Nature wise the method of this study was the quantitative survey method. The survey research method is one of the methods which are the most suitable methods to collect the data from a large population. Many researchers conducted studies to follow this method including (Igbokwe, 2012; Kloosterman, Notten, Tolsma, & Kraaykamp, 2011; Morrison, Jacobs, & Swinyard, 1998; Morrow & Weinstein, 1986).

The survey research technique was based on a self-administered questionnaire which was used to explore the above-mentioned objectives. As per Creswell, Fetters, Plano Clark, and Morales (2009) study design gives a quantitative or numeric depiction of patterns, mentalities, or assessment of a populace by contemplating an example of that populace. From test results, the scientist sums up or makes claims about the populace, so it is one of the best methods which are commonly used in social sciences due to ease in getting flexible and speedy data.

Source of Data

Primary and secondary information was used for this research. The primary information was gathered through a field study, utilizing the questionnaire. The researcher also consults thesis, articles, books, electronic journals, periodicals, and websites.

Population

Population is a group of people having the same characteristics and features (Kothari, 1990). The population of this study was all library users of GCU Faisalabad including five campuses (Main Campus, Jhang Road Campus, Layyah Campus, Civil Line Campus) who are currently enrolled in BS, Master, M.Phil, Ph.D. program. The total strength of university students including all five campuses is 16570 and the population of this study is all users who use the automated service facilities

Sample of the Study

There are 16570 students currently enrolled in the BS, Master, M.Phil, and Ph.D. programs at all campuses of GCU Faisalabad. The sample of this research was calculated by using Yamane (1967) formula with a 95% confidence level and a 5% margin of error. The calculation of sample size by using the formula of Yamane is as under:

$n=N/(1+N(⟦e)⟧^2)$

In formula:

n = sample size

N = total number of population

e = Margin of error (%)

$n=16570/(1+16570(⟦0.05)⟧^2)$

n = 391 (Rounded)

After calculating the sample size by putting the values in the formula, the sample size is 391 students.

Sampling Technique

The convenience sampling of non-probability technique was used to collect data from a target population. According to Sheble and Wildemuth (2009) non-probability sampling techniques in which every participant of the whole population has no equal chance for selection. The researcher could not approach the whole population systematically due to COVID-19 and lockdown situations which caused behind to use the convenience sampling techniques.

Data Collection Instrument

The nature of this study is quantitative. It was decided to use the questionnaire as a data collection tool to collect the data from the target population. Frazer (2000) stated that the questionnaire should be clear and understandable. It is a very suitable tool to collect data from a huge population. According to Kasomo (2006), a questionnaire is a cautiously designed tool that consists of questions and statements for the sake of gathering the data directly from the participants. A questionnaire consists of open-ended and close-ended questions. In open-ended questions, the researcher allows participants to answer the question openly and own words. While close-ended questions limit the participant's freedom of response. However, in this study researcher asked the close-ended questions. The questionnaire was self-administered by the researcher to know the impact of automation on users' perception of library services at GCU Faisalabad.

Pilot Study

Pilot study is carried out on a small level, it helps to find out errors and difficulties in the data collection instrument. To make sure the consistency of the data collection instrument in a controlled setup, it was distributed among some students of BS, Master, M.Phil, and Ph.D. degree programs. The students were approached via, visiting of campus, cell phones, and WhatsApp. Twenty students filled up the questionnaire; they were also requested not to fill the questionnaire again in the final data collection procedure.

Reliability of Data collection Instruments

There were six sections of data collection instruments to know the Impact of Automation on User's Perception of Library Services at Government College University Faisalabad. Cronbach's alpha coefficient was applied to the whole questionnaire to check the reliability of the instrument. The worth of Cronbach's alpha was 0.759, which was excellent.

Data Collection Process

The first stage of data collection was the distribution of questionnaires among the students of BS, Master, M.Phil, and Ph.D. degree programs. From time to time follow-up was made to receive back the questionnaire from students. As per the Yamane formula, the sample size was

391 (2.36 %) out of 16570 (100%). 391 questionnaires were disseminated among the BS, Master, M.Phil, and Ph.D. degree students. Participants were approached in the tutorial room, library and email.

Data Analysis

The gathered data was entered in software which is a statistical package for social sciences (SPSS 22.0). Different codes were allotted to different demographical items. Frequency was measured to impact library services and resources on students' academic performance. Statements were determined independently by descriptive statistics and the result was shown section-wise. Also inferential statistics and use the Independent sample t-test formula were used to check the mean difference between points of view of two factors.

Analysis and Interpretation of Data:

The data was collected from all campuses of Govt. College University Faisalabad. A total of 375 respondents participated in this study. SPSS (Statistical Package for Social Sciences) version 22 was used to analyze descriptively and inferentially the collected data.

Demographical Information

Demographics are the feature of the population. These features include gender, experience, and qualification of the population who participated in the research. Table 1 presents the frequency of students of different degree programs who participated in this study. The result showed that 118 (31.5 %) respondents of the total participants were from the BS program, while 95 (25.3%) students were from the master program, 117 (31.2 %) students from M.Phil and the remaining 15 (12.0%) participants of total respondents were from the Ph.D. program.

Table 1

Students enrolled in different degree programs

Degree Program	Frequency	Percentage
BS	118	31.5
Master	95	25.3
M.Phil	117	31.2
Ph.D	45	12.0
Total	375	100.0

Library Automated Services

Table 2 demonstrates that the highest mean value of reference services is 1.37; Borrowing facility is 1.28; selective dissemination services & Document Deliver Services are 1.33 and circulation services are 1.27 which mean that most of the participants were much aware of reference services, borrowing facility of library materials, DDS, SDI and circulation services. On the other hand, the mean value of periodical services and online journals was 1.17 and 1.20 respectively which was low as compared to the mean of other library automated services which means that respondents are less aware of the periodical services and online journals.

Table 2

Do you know about different automated services offered by the library of GCU Faisalabad?

Types of Services	Mean	Mode
Circulation service	1.27	1.00
Periodical service	1.17	1.00
Online journal	1.20	1.00
Current Awareness services	1.26	1.00
Selective Dissemination Services	1.33	1.00
Press Clipping Services	1.28	1.00
Document Delivery Services	1.33	1.00
Online Public Access Catalog	1.23	1.00
Borrowing facility	1.28	1.00
Reference service	1.37	1.00

Students' awareness about the library automated services w.r.t gender

The results (Table 3) of the independent t-test indicated that there was no significant difference between males and females regarding awareness about the library automated services that were offered by the GCUF library. Furthermore, the mean score of male and female students was nearest, and a not significant difference was shown. However, the high mean score of both types of respondents showed that the awareness level about library services among males and females was almost the same.

Table 3

Students' awareness about the library automated services w.r.t gender (N=375)

Library Services	Mean		t-value	Sig. (2-tail)
	Male (244)	Female (131)		
Circulation service	1.30	1.23	1.452	.147
Periodical service	1.16	1.20	-.941	.347
Online journal	1.23	1.16	1.496	.136
Current Awareness services	1.27	1.24	.550	.583
Selective Dissemination Services	1.31	1.35	-.780	.436
Press Clipping Services	1.26	1.31	-.886	.376
Document Delivery Services	1.30	1.38	-1.624	.105
Online Public Access Catalog	1.20	1.27	-1.373	.171
Borrowing facility	1.28	1.29	-.233	.816
Reference service	1.37	1.38	-.244	.807

Level of significance *<.05; Sig. (2-tail) = P-value

User's perception about library automated services

Table 04 presents that five statements have a mean score higher than 3 and one statement has a mean score less than 3. The results demonstrate that the highest mean score of "Automated services save more time than manual library services" and "Manual services have reduced as the result of automated library services" was 3.66 and 3.38 respectively which means that the respondents can understand that automation has a positive impact on library working. While the mean score of "I have a tendency not to use automated services" was 2.35.

Table 04

Users Perceptions about library automated services

Statements	Mean	Mode
I have a tendency not to use automated services	2.35	1.00
I often visit the library as a result of the automated library service offered	3.32	4.00
Manual services have been reduced as the result of automated library services	3.38	5.00
Library automation allows users to be innovative	3.34	4.00
Automated library services motivate me to visit the library more often	3.36	4.00
Automated services save more time than manual library services	3.66	4.00

Users' Perceptions about library automated services w.r.t gender

The results (Table 05) of the independent t-test indicated that the (P-value > 0.05) of the above-mentioned statements mean there is no significant difference between the perception of males and females regarding the use of library automated services which were offered by the GCUF library. Furthermore, (P-value < 0.05) of "Library automation allows the user to be innovative" which means that there is a significant difference between the opinions of males and females regarding library automated services that allow the user to innovate. The mean score of males and females were nearest and no significant difference showed. However, the high mean score of both types of respondents showed that the perception about the use of library automated services among the males and the females was almost the same.

Table 06

Users Perceptions about library automated services w.r.t gender (N=375)

Statements	Mean		t-value	Sig. (2-tail)
	Male (244)	Female (131)		
I have a tendency not to use automated services	2.42	2.22	1.256	.210
I often visit the library as a result of the automated library service offered	3.43	3.11	1.959	.051
Manual services have been reduced as the result of automated library services	3.43	3.27	1.003	.316
Library automation allows users to be innovative	3.45	3.15	2.206	.028
Automated library services motivate me to visit the library more often	3.34	3.40	-.448	.655
Automated services save more time than manual library services	3.68	3.63	.358	.721

Level of significance *<.05; Sig. (2-tail) = P-value

Users' Satisfaction Level about library automated services

Table 07 presents that all library services mean score of more than 1.5. The results demonstrate that the highest mean score of "Selective Dissemination Services", "Borrowing facility", "Document Delivery Services", "Press Clipping Services" were 1.91, 1.90, 1.89, and 1.86 respectively which means that the respondents are highly satisfied to use the library automated services. While the mean score of "Online Journal" was 1.54, which means that less number of understudies' satisfaction level with services of online journals.

Table 07

User's Satisfaction Level about library automated services

Library Automated Services	Mean	Mode
Circulation service	1.71	1.00
Periodical service	1.64	1.00
Online journal	1.54	1.00
Current Awareness services	1.59	1.00
Selective Dissemination Services	1.91	1.00
Press Clipping Services	1.86	1.00
Document Delivery Services	1.89	1.00
Online Public Access Catalog	1.74	1.00
Borrowing facility	1.90	1.00
Reference service	1.65	1.00

Users' satisfaction level about library automated services w.r.t gender

The results (Table 08) of independent t-test indicated that the (P-value > 0.05) of above-mentioned statements which means there is no significant difference between the satisfaction level of male and female regarding library automated services which offered by GCUF library. The mean score of males and females were nearest and no significant difference showed. However, the high mean score of both types of respondents showed that the satisfaction level about the use of library automated services among males and females was almost the same.

Table 08

Users' satisfaction level about library automated services w.r.t gender (N=375)

Library Automated Services	Mean		t-value	Sig. (2-tail)
	Male (244)	Female (131)		
Circulation service	1.75	1.64	1.247	.213
Periodical service	1.61	1.69	-1.001	.317
Online journal	1.55	1.52	.324	.746
Current Awareness services	1.57	1.61	-.416	.678
Selective Dissemination Services	1.93	1.85	.867	.387
Press Clipping Services	1.84	1.89	-.636	.525
Document Delivery Services	1.91	1.85	.687	.492
Online Public Access Catalog	1.70	1.82	-1.298	.195
Borrowing facility	1.87	1.95	-.816	.415
Reference service	1.62	1.69	-.846	.398

Level of significance *<.05; Sig. (2-tail) = P-value

Challenges and Obstacles faced by students

Table 09 presents the mean score of challenges faced by library users while they are using the library automated services. 3 out of 8 challenges statements were having a mean score of more than 3.00 and the remaining statements having a mean score of less than 3.00. The result shows that the statements which have a mean score of more than 3.00, those challenges were very significant and faced by the majority of the library users, while the remaining statements have a mean score of less than 3.00, which means that these challenges were less significant and faced by less number of library users.

Table 09

Challenges and Obstacles faced by students

Challenges	Mean	Mode
Difficult to search the document on OPAC	2.26	1.00
Inadequate ICT skills	2.45	1.00
Lack of infrastructure and facilities (communication facilities and irregular power supply, the poor library)	3.28	4.00
Software is not user friendly	2.29	1.00
Low skills levels of users	3.34	5.00
Lack cooperative library staff	2.54	2.00
Lack of library automate services orientation	2.71	2.00
Cost of offering services	3.51	5.00

Challenges and Obstacles faced by students by library users w.r.t gender

The results (Table 10) of the independent t-test indicated that the (P-value > 0.05) of above-mentioned statements and Mean score of male and female users is almost the same, which means that there is no significant difference between the challenges faced by male and female library users regarding library automated library services.

Table 10

Challenges and Obstacles faced by students by library users w.r.t gender (N=375)

Purposes	Mean		t-value	Sig. (2-tail)
	Male (244)	Female (131)		
Difficult to search the document on OPAC	2.28	2.21	.457	.648
Inadequate ICT skills	2.50	2.37	.886	.376
Lack of infrastructure and facilities (communication facilities and irregular power supply, the poor library)	3.22	3.38	-1.003	.317
Software is not user friendly	2.26	2.34	-.562	.575
Low skills levels of users	3.35	3.32	.179	.858
Lack cooperative library staff	2.58	2.47	.955	.340
Lack of library automate services orientation	2.68	2.77	-.738	.461
Cost of offering services	3.52	3.50	.105	.916

Level of significance *<.05; Sig. (2-tail) = P-value

Conclusion and Discussion:

The population of this study was the students of BS, Master, M.Phil, and Ph.D. degree programs who were currently enrolled in all campuses of GCU Faisalabad. The total number of students was 16570 students. After the sample calculation, the sample size was 391(2.35 % of the total population) students. The researcher distributed 391 questionnaires to the respondents but 375 (95.9 % of Sample Size) students responded. The result showed that 118 (31.5 %) respondents of total participants were from the BS program, while 95 (25.3%) students from the master program, 117 (31.2 %) students from M.Phil, and the remaining 15 (12.0%) participants of the total respondents were from the Ph.D. program. This study found the user's perception regarding library automation at GCU Library Faisalabad. The result revealed that more than 75% percent of

the participants like to support and use automated library services and hybrid services while less number of students prefer to use the manual library services. Further respondents give their point of view that they have a trend to use the automated services and through automated services, they can reduce the manual work and save their time. The automated services motivate them for new inventions and further results point out that they visited the library because the library offers the automated services.

The independent t-test was applied to examine the difference between the perception of male and female respondents. The study didn't find a significant difference in the opinions of both types of respondents. This is the sign that the views of both types of respondents were indistinguishable.

The current study highlighted that the GCU library Faisalabad is offering different library automated services in form of Circulation service, Periodical service, online journal, Current Awareness services, Selective Dissemination Services, Press Clipping Services, Document Delivery Services, Online Public Access Catalog, Borrowing facility, and Reference service. The result revealed that the participants were well aware of the library automated services offered by GCU library.

The independent t-test was also applied to know the difference between male and female users regarding library automated services, offered by the library. The result uncovers that there was no significant difference between the awareness levels about the library services with respect to gender. This is the signal that the opinions of both types of respondents were the same. The current study shows up that the majority of the total participants were satisfied with the automated services, offered by GCU library i.e. Circulation service, Periodical service, online journal, Current Awareness services, Selective Dissemination Services, Press Clipping Services, Document Delivery Services, Online Public Access Catalog, Borrowing facility, and Reference service.

The independent sample t-test was also applied to check the difference between male and female users regarding the satisfaction level with library automated services, offered by the library. The result found that there was no significant difference between the opinions of the male and

female users which means that both types of participants were equally satisfied with the library services. The current study highlighted that the majority of participants of this study faced different prominent problems which are associated with library services like lack of infrastructure and facilities, communication facilities and irregular power supply, the poor library, Low skill level of the users, and cost of offering services. On the other hand, less number of participants faced some other challenges which were less prominent like difficulty to search the document on OPAC inadequate ICT skills, lack of user-friendly software, lack of cooperative library staff and lack of library automate services orientation.

An independent t-test was used to ensure the difference in the opinions of male and female respondents. However, the findings indicated that no significant difference was found in the opinions of both types of respondents. The library users like to support and use library services because they offered them a variety of services by using the latest technologies. The results showed that GCU library Faisalabad was given a variety of library automated services to their users. Some of the library users have lack IT skills and they cannot use the automated services effectively. It is suggested that librarians should arrange some training sessions so that they can overcome this problem. Students were facing the problem of internet connectivity, poor infrastructure, lack of reference resources, and lack of policy for the reference section. The library and university management should address the highlighted problems. Library users have limited financial resources and they cannot afford the cost-based library services. It is suggested that library management should offer the free of cost library automated services.

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