USE AND EVALUATION OF ONLINE PUBLIC ACCESS CATALOGUE IN THE CENTRAL UNIVERSITY LIBRARIES OF UTTAR PRADESH: A STUDY

Dissertation

SUBMITTED FOR AWARD OF THE DEGREE OF

Master of Philosophy
in
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UNDER THE SUPERVISION OF
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ENROLLMENT NO: 398/14 **2018**

Dedicated to My Dear Parents

DECLARATION

I hereby declare that this dissertation entitled **"USE AND EVALUATION OF ONLINE PUBLIC ACCESS CATALOGUE IN THE CENTRAL UNIVERSITY LIBRARIES OF UTTAR PRADESH: A STUDY"** submitted by me for the award of Degree of the Master of Philosophy in Library and Information Science to the Department of Library and Information Science, Babasaheb Bhimrao Ambedkar (A Central University), Lucknow is an outcome of my own efforts and is an original work. The content of this dissertation did not form a basis for the award of any previous degree to anyone else. It is also undertaken that this dissertation is essentially free from all kinds of plagiarism.

I hereby also undertake that this dissertation submitted by me to Babasaheb Bhimrao Ambedkar Lucknow satisfies all the requirements as stipulated in the Master of Philosophy (M.Phil.) regulations-2015 and it is fit for submission and evaluation for the award of the degree of Master of Philosophy in Library and Information Science of the University.

It is also certifies that the Suggestions suggested by DRC during pre-submission presentation on Dated 23/05/2018 duly incorporated in my dissertation.

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CERTIFICATE

This is to certify that the dissertation entitled **"USE AND EVALUATION OF ONLINE PUBLIC ACCESS CATALOGUE IN THE CENTRAL UNIVERSITY LIBRARIES OF UTTAR PRADESH: A STUDY"** Submitted by **Chandra Shekhar** is an original research work and has not been previously submitted in part or full for the award of any other degree or diploma to this or any other university.

The dissertation submitted to Babasaheb Bhimrao Ambedkar University satisfies all the requirements as stipulated in the Master of Philosophy (M.Phil.) regulations-2015 and it is fit for submission and evaluation for the award of the degree of Master of Philosophy in Library and Information Science of the University.

The Suggestions made by DRC on the day of his pre-submission presentation are incorporated by the candidate

Date: **Supervisor**

Place:

Head of the Department

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Dated: ***(Chandra Shekhar)***

PREFACE

PREFACE

In this study, Many users have been selected, in which many whom do not need abilities in on line searching, experts can remains to recognize the issues and discover their solutions, especially in topic looking which currently presents more issues than promises. Up to now the concentration has been on the acceptance of the issues at the indexing and looking point but the future efforts is apparently directed at creating easy to use software and information based system where users' obligations regarding search technique & logics etc. The usage of OPAC by users has improved their data access specially in the positioning of books, publications and other library collection. Present study explores use and evaluation of online public access catalogues in the central university libraries of Uttar Pradesh. The whole work of study is arranged in five chapters:

Chapter 1: Introduction

This chapters deals with the brief introduction of the study and also describes, research concept, objectives, hypothesis and research methodology.

Chapter 2: Review of Literature

The chapter discusses in detail the literature review pertaining to the study received from the secondary sources of information such as (indexing and abstracting sources).

Chapter 3: Profile of the Central University Libraries in Uttar Pradesh

This chapter briefly describes establishment, history, its staff, users, resources and services available in the selected Central University libraries in Uttar Pradesh establishment, history, collection of library, its staff and users etc.

Chapter 4: Online Public Access Catalogue: An Overview

The chapter fourth deals with the detailed overview and historical background of OPAC.

Chapter 5: Data Analysis and Interpretation

The chapter fifth deals with the analysis of research data and presents the statistical and graphical presentation of the analysed data.

Chapter 6: Findings, Conclusion and Suggestions

The chapter sixth makes conclusion on the basis of research findings and lastly conclude with suggestions for future research.

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ABBREVIATIONS

AA	Code Anglo-American Code
AACR	Anglo-American Cataloguing Rules
AACR2	Anglo-American Cataloguing Rules - II
ALA	American Library Association
AMU	Aligarh Muslim University
BBAU	Babasaheb Bhimrao Ambedkar University
BHU	Banaras Hindu University
CALIBER	Convention on Automation of Libraries in Education and Research Institutions
CCC	Classified Catalogue Code
CD ROM	Compact Disc, read-only-memory
IMCE	International Meeting of Cataloguing Experts
ISBD	International Standard Bibliographic Description
ISBN	International Standard Book Number
ISSN	International Standard Serial Number
IT	Information Technology
LMS	Library Management Software
MARC21	Machine Readable Cataloging 21
NCIP	NISO Circulation Interchange Protocol
OPAC	Online Public Access Catalogue
RDBMS	Relational Database Management System
RFID	Radio-Frequency Identification
UNICODE	Universal Trunk - Out-of-service Code
UOA	University of Allahabad
WEB-OPAC	Web Online Public Access Catalogue

CHAPTER-1

INTRODUCTION

CHAPTER - 1

INTRODUCTION

1.1 Introduction

In the present 21st century, the aim of human society in the developing countries is to grow in the fields of economics, politics and social culture. Their achievements depict the hard work by their populations. However development cannot be achieved without the primary work of educating the nation. The education system is largely dependent on information and knowledge resources for the development. The information surge has changed the thinking and outlook of the librarians throughout the recent years. This trend has induced some improvements posing corresponding challenges necessitating the re-examination of technical guidelines of library and information centers. Historically, one of many tips to access the information has been the catalogue alongside classification.

The catalogue which was only available in the catch form didn't stay secure. It proceeded rising in their identity and difficulties over time equally in the physical and inner forms. The users of the library system expected specific benefits from the catalogues. But they've generally kept imperfect and deficient. The catalogue punches in to two forms – Physical and Inner forms. In fact, they are two edges of exactly the same coin. Because the users' information seeking conduct transformed, corresponding improvements have now been estimated from the catalogues. Nevertheless there have been problems of the physical forms, to meet the objectives of the catalogue users. The present users assume physical form catalogue to be a highly effective, user friendly, effective, trusted, lightweight and useful process to deliver information regarding the documents in the library and information center. The extended time of conventional cataloguing finished with the introduction of Information Technology (IT). The growth in IT has pushed the librarians in the path of adopting new physical forms of catalogue, one such being Online Public Access Catalogue (OPAC).

The current libraries grasp a wide selection of electronic and digital oriented materials as information resources. A sizable quantity of libraries in India has automated their procedures and solutions applying advance technologies to satisfy their users' needs (Tripathi, 2014). Public catalogue, which is an important service of the library, is not exceptional to computer technology. Computerized catalogue is termed as Online Public Access Catalogue (OPAC). It is also known as the catalog, PAC, Web PAC, library catalog, and online catalog. It works being as an information collection program for the user.

Library OPACs first began in the late 1970s and early 1980s and have experienced through several cycles of change and development. The essential intent behind the OPAC is to produce a database of library assets which offers an online catalogue to simply help users to spot and discover resources quickly (Theimer, 2002). In reality the OPAC was possibly the motivation for lots of the innovative services we find on the Internet today.

OPACs typically contain files of all the items that a library catalogs, such as for example: books (print and/or electronic); journals (print and/or electronic); databases; maps; manuscript collections; etc. An OPAC is Public (anyone can use it), and it enables the users to search the library's collection, always course reserves, and check one's own library files from any pc attached to the internet. OPAC has revolutionised usage of bibliographic data through research features such as for example keyword exploring, Boolean exploring, Truncation, Proximity searching, and item identity number searching. They certainly were extremely hard in the standard catalogue (Kumar and Vohra, 2011). OPAC is an on the web repository of products presented by a library or groups of libraries which give a program for users to locate and to discover books and publications materials physically available in the library. Thus, utilizing the library OPAC, information searches can access bibliographical records of a number of accessible information resources separately (Wikipedia).

An OPAC is an online database which includes a list of all library resources (in forms of text, audio and video), available in any institution. An example of such institutions is distributed by universities, where students and academic staff frequently use OPACs so as to find resources (Kan and Danny, 2005). As well as having the benefit of opening a library's information slightly and preserving time for a library's users, OPACs have been found to enhance the communication between subject librarians and cataloguers (Kennedy, 2004). Some OPACs are Internet-based, that is, can be accessed globally on the World Wide Web while those that are not internet-based are those usually installed on standalone computers (Mulla and Chandrashekara, 2009).

OPAC (Online Public Access Catalogue) changed the traditional card catalogue system. In the new system, Information can be spread within computer and then the required entry can be retrieved immediately through OPAC system in any format. Online Public Access Catalogue is an increasingly familiar piece of equipment in libraries. OPAC is the modern and flexible form of the catalogue, usually instantaneous and sophisticated access to any recorded information within a computer. Online Dictionary for Library and Information Science (ODLIS) defines OPAC as, "An acronym for online public access catalog, a database composed of bibliographic records describing the books and other materials owned by a library or library system, accessible via public terminals or workstations usually concentrated near the reference desk to make it easy for users to request the assistance of a trained reference librarian. Most online catalogs are searchable by author, title, subject, and keywords and allow users to print, download, or export records to an e-mail account (Chinnasamy, et al., 2013). There are many big differences between the OPAC and the card catalogue. OPAC is an intrinsically rich tool which not only incorporates online circulation and new arrivals information of the library but even capable of providing quick, enhanced and easy access from the work place of the user with several additional search features compared to card catalogue and hence substantially saves the time of user (Sridhar, 2004 and Sokvitne, 2006).

1.2 Statement of the Problem:

Measuring the effectiveness of the usage of computer catalogs is a subject of study for many years now. It has inspired people to understand exactly how information extraction programs can be improved to meet the user's satisfaction. A number of studies have shown that online public access catalogs (OPECs) in most libraries, especially during the subject reach, become a source of problems during the consultation. In the present study, some of the selected Central University libraries have tried to investigate the depth of various current issues related to the study on the use and evaluation of public access catalog (OPEC). This research work will support to improve their library's online public access catalog (OPEC) service.

The present study is conceived under the entitled, **"USE AND EVALUATION OF ONLINE PUBLIC ACCESS CATALOGUE IN THE CENTRAL UNIVERSITY LIBRARIES OF UTTAR PRADESH: A STUDY"**

1.3 Significance of the Study

This study aimed at providing online catalogue access to library resources in the Central Universities libraries of Uttar Pradesh. It encourages the introduction of online catalogues in libraries, noting that some libraries are already practicing its use for information retrieval. It will bring to lime light the differences between manual catalogues which most librarians are sentimentally attached than online catalogue. Most of all, the study will show the quality of services or functions performed by the use of OPAC as add to the body of literature on OPAC.

The present research has identified the comprehensive and healthy relationship between the Library staff and the users towards focusing on the maximum utilization of OPEC. Therefore, a library must build up a robust and positive relationship and close interaction with the users.

Overall, the libraries are well-connected to major decision-making forums and other departments of institutions; while other departments are also linked to the library. Quick and fast growth in student numbers means that libraries should now make the OPEC service even better. The need to better understand the problems of its users related to the use of OPEC by means of advisory committees.

1.4 Objectives of the Study

The main purpose of this study is to investigate the use and evaluation of OPEC in the Central University libraries of Uttar Pradesh specifically; it set to achieve the following objectives:

- To know the awareness and use of OPAC by the users of central University Libraries;
- To explore the search technique used by the users;
- To find out the place and purpose for using OPAC;
- To find out the problem faced by the user which using OPAC;
- To find out satisfaction level of the user at the time of searching OPAC;
- To collect suggestions of the users regarding the improvement of OPAC service in the Library.

1.5 Hypotheses of the Study

The following hypotheses have been formulated and tested:

- Most of users have awareness and using OPAC to access the relevant information in the library;
- Majority of users used simple search option and not aware about search techniques;
- Some of users are faced problems regarding number of OPAC Terminals;
- Most of the users used OPAC for the various purpose;
- Majority of users are satisfied with searching facilities available in OPAC;

1.6 Scope of the Study

The study content consists of the following Central University libraries of Uttar Pradesh which have same nature are as follows:

- Aligarh Muslim University , Aligarh
- Babasaheb Bhimrao Ambedkar University , Lucknow
- Banaras Hindu University , Varanasi
- University of Allahabad, Allahabad

The study covers four Central University and their faculty members, research scholars, post graduate students and staff members as a source of study taken from different departments.

1.7 Operational Definition of Terms

There is a need to define and have a clear idea about some of the terms that will be used in this research, which will help the researcher to understand the meaning and purpose of the terms used. The following terms have been defined for these purposes.

- **Evaluation:** An evaluation is most effective and widely used dimension techniques to achieve Institutional goals, in addition to gaining prior insight or existing initiatives and also helping in framing policy, decision making and identifying the future changes (Wikipedia).
- **Library Catalogue:** A comprehensive list of books and non- book materials in a library collection
- **OPAC:** Online public Access catalogue, it is online bibliographic information of a library's collection
- **Library:** Academic libraries have been described as the heart of an educational institution (Simmonds & Andaleeb, 2001), which serves as a place to support the institution's curriculum and research activities by collecting, preserving and dissemination of library information resources and services for the faculty members and the students (Kotso, 2010).
- **Information:** Outcome of processed data
- **Information Technology:** The use of computers and other telecommunication technologies in carrying out library services
- **Use:** To achieve links to national and international networks through OPAC system. One can access anywhere through the use of internet.
- **System:** With OPAC one can access anywhere through the use of internet.

- **University Libraries:** University libraries otherwise known as Academic library is a library found in higher institution and polytechnic they provide information resources that are accessible by users.
- **Cataloguing:** Systematic and detail description of information material
- **Bibliographic Description:** It's describing a material bibliographically stating all the access point.
- **Users:** A user of the library, who visits the library for the purpose of learning to utilize its resources and services to satisfy his information need (Nwalo, 2003).

1.8 Research Methodology

The study has conducted to gather the information regarding use and evaluation of OPEC from the selected Central University libraries of Uttar Pradesh. In this study, convenient sampling was used for personal visit to distribute the questionnaires. Convenient sampling (availability sampling) is really a particular form of non-probability sampling approach that depends on data collection from population members that are easily offered to take part in study. Quite simply, that sampling method requires finding members wherever you will find them and on average wherever is convenient. In convenient sampling no inclusion criteria determined prior to the selection of subjects. All subjects are asked to participate. Convenient sampling method may prove to be efficient throughout exploration point of the study area, and when completing collection in order to recognize and handle shortcomings associated with questionnaire design (Saunders, *et.al.,* 2012).

The Information has collected by using questionnaire as a tool that was personally distributed to the concerned library users. The investigator has made a personal visit to distribute the questionnaires and observe the existing conditions of these libraries. Although personal method is usually carried out in a pre-determined question, but the researcher has used this method to identify the general information about the availability of different types of use and services of OPEC provided by these libraries, which helps in designing the questionnaire, to clarify the doubts and would be useful for accurate data collection. These interviews were unplanned, unguided and used for filling the gap of present research. The researcher personally

visited all the selected Central University libraries for factual observation of their functioning on the basis of use of OPEC system.

After the collection of data on a research problem, according to the questionnaire, were analysed with the help of the using MS Excel 2008. Chi-square test was also used to prove in stated hypothesis. The observed data were framed in the form of table and graph with percentages.

1.9 Organization of the Study

The present study has been organized into following chapters:

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This chapters deals with the brief introduction of the study and also describes, research concept, objectives, hypothesis and research methodology.

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The chapter sixth makes conclusion on the basis of research findings and lastly conclude with suggestions for future research.

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CHAPTER-2

REVIEW OF LITERATURE

CHAPTER - 2

REVIEW OF LITERATURE

Lalnunpuii, *et.al*. (2018) focused on the OPAC facilities used by the scholars in terms of user's frequency, search outline, purpose of use, reason for using OPAC, benefits, satisfaction level and problem faced in the usage of OPAC in library. One hundred designed questionnaires were distributed among the scholars of Mizoram University to measure the use and satisfaction level of OPAC facilities in the library, out of which 76 filled questionnaires were received for data analysis.

Mole (2017) carried out that the services of OPAC for effective use of library resources in three university libraries in Nigeria. The goals of the study were to find out the OPAC provided; the resources available for effective provision of online public access catalogues; the extent to which the provision of online public access catalogues have contributed to the effective usage of library resources; the problems linked with the provision of online public access catalogs; and policies for improving the provision of online public access catalogues in the libraries.

Ogbole and Moray (2017) studied that the factors affecting OPAC and sustainable usage in two University libraries in Ogun and Oyo States, Nigeria and also to evaluate the extent these factors had on OPAC use.

Chatterjee1, Swarnali and Sarkhel, J. Krishna (2016) focused on a comparative study of library Web-OPAC on five major LMS (Library Management System) software. OPAC is an online database of resources held by a library or group of libraries. Web-OPAC is nothing but while the OPAC is accessed through a web browser over Internet. The selected five LMS software are Koha, Libsys, Alice for Windows, NewGenLib and Virtua. It concentrated on their Web-OPAC attributes and assets. This study defines the five LMS software to carried out suitable Web-OPAC attributes by visiting the Web-OPACs of institutions / organizations where using those software.

Kumar and Mahajan (2015) explained that in order to appropriate utilization of OPAC and its services the public libraries should deliver the orientation to the OPAC and its services to the user at the beginning or at any particular time fixed by them.

Emiri (2015) explored that it is pertinent to note that age, gender and level of learning as demographic factors has important influence on the use of OPAC. This may have implications at long run on the academic performance of the library students it is necessary for interventions to be made at all level of learning, age group and gender as revealed in the analysis and recommended that Students should be oriented on entrance to institution on the use of library and OPAC and be told the relevance of these OPAC to academic achievement. All age groups should be trained or skilled on the use of OPAC and other digital library resources to that they can benefit from the services provided. Library use should be encouraged if not made compulsory by university authorities. Library management should ensure that OPAC user interface should be complicated.

Hilal Ahmad (2014) highlighted that libraries are still maintaining card catalogue, though in very less use. This phenomenon is also witnessed in several libraries of other developing countries primarily due to the erratic electricity. It is notable to state here that these libraries have also shown that sometimes there is a problem in library software like security of the data loss or database etc., and during the trouble-shooting they cannot close the doors of the library. The library staff also displayed apprehensions regarding the loss of data due to virus or other problems in the soft version of the data. Therefore, they maintain the hard copy of data in form of the card catalogue. The results clearly point out that there is further improvement required on part of the select libraries particularly of Allama Iqbal Library to take appropriate measures for enhancing the library software awareness and subsequently the usage of OPAC.

Chintha, N. (2013) suggested that librarians must work to bring the users back to the library for their immediate information needs. The outline of the library portals with the features of web-based OPACs is the ultimate solution to the problem. Web-based OPAC service is one of the key roles in e-resource services.

Devendra and Nikam, K. (2013) deliberated the attitudes of two law university library users towards the usage of OPAC/Web OPAC and located in Andhra Pradesh.

Narang Asha and Singh Sukhdev (2013) attempted to ascertain the use and opinion about OPAC in Bhai Gurdas Library, Guru Nanak Dev University, Amritsar by the research scholars. Information technology has played a crucial and constructive role in the modernization of information services. Findings revealed that OPAC significantly helped the users in speedily finding their required documents.

Shiv Kumar and Ranjana Vohra (2013) highlighted in their study that valuable information for improving OPAC services for developing nations as well as for developed nations. It can be further highlighted that the time has come to renovation the algorithms of OPAC systems worldwide taking into account the problems, preferences and expectation of users.

Chandrakant and Chavan (2012) studied that the world of academics is enjoying the fruits of information technology in this century and the users of the OPAC have simple knowledge to handle the IT resources. The institutions involved in academic work should deliver technical training to their students. The responsibility of the librarian towards social change, scientific development and social improve is undisputable. OPAC will definitely make a major impact on its users.

Rekha *et.al.* (2012) explained that OPAC/Web OPAC is not just exploitation of information technology (IT), but it is a organized application to cope up with the growing demand of information seekers. To overcome the problems arising out of information explosion Web OPAC is only the solution to state of the art technology, and expert attitudes work changes their dreams to truth. Depending on the needs of user community, library authority along with the professional staffs should take full initiatives to immediate implementation of Web OPAC.

Shiv Kumar (2012) studies that OPAC users in the Punjab University library were inclined by the ease of use, simple searching, convenient access and

relevance position to information of web search engines. As a outcome, web searching has increased the expectations of OPAC users. While the OPAC privations the advanced features available in the search engines of the current era, it tends to give an impression that users have a non-serious attitude towards the OPAC. They do not want to spend the required time for searching information on the OPAC. This is an issue of concern for the library because library staff cannot be available all the time to educate users on the availability and location of various documents in the library. In contrast, users should be self-sufficient enough to search for information on the OPAC.

Tamizhchelvan *et.al.* (2012) explored that there is more causes for optimism about the impact of the technology on information provision in countries with an initially less advanced provision; the gap can be linked very much faster than one might think. The studies highlighted on aspects such as OPAC services, search capabilities, subject access provision.

Velmurugan and Amudha (2012) concluded that how introduction of computers in the field of libraries and information centres has brought several changes. The OPAC is a advance and flexible form of online catalogue and it serves as an index to full text information. OPAC is significantly more user friendly than a card catalogue since it provides a variety of services to the users.

Vinit Kumar (2012) explained that use of sitemaps is very popular among the webmaster community to expose websites to search engines. The best practice is to provide a local search engine embedded inside the website as well as making the website friendly Web search engine. Libraries in their long history always focused on the second part but are far behind in developing the strong connection with internet search engines.

Yusuf (2012) highlighted the analysis, it can be said that library users make usage of OPAC to access library information and their collections. They find it more useful, easy and faster to locate information on existing library materials, despite some hindrances. It is also observed that, lack of suitable instructions, insufficient

information and lack of interest are some of the problems that cause non usage of OPAC.

Islam and Ahmed (2011) outcomes indicate that improvements are required in many areas of the OPAC interface, particularly in using simple and natural dialogue, availability of onscreen information, supporting system from page to page, knowledge to operate the system, and searching the OPAC.

Kumar and Vohra (2011) examined the use of OPAC by the users at Guru Nanak Dev University Library, Amritsar. The paper concentrations on many aspects of OPAC such as awareness, regularity of use, commonly used access points, satisfaction level, etc. The results concluded that most of the users use the OPAC to find the documents despite facing some difficulties. However, majority of the users are not satisfied with the OPAC. The study suggests that the users should be made familiar with the use and operation of the OPAC by providing special training.

Shiv Kumar (2011) highlighted that there is a lack of understanding of the inner working of the OPAC among the users in all of the three university libraries. The users were impacted by trends in web searching. It seems that users' first choice for searching their desired information even in developing countries like India has become to explore the web. Thus, the internet had deep and direct impact on users' information searching behaviour in Indian universities. At the same time, the internet alone cannot be a substitute for all quality library resources. In such a scenario, the library professionals have to contemplate ways to improve the functionalities of the OPAC, otherwise the value and importance of the OPAC will be lost. It is high time for the librarians to convey users' expectations regarding OPACs to library software developers. They should also collaborate with system designers to fulfil the users' needs.

Malliari *et.al.* (2010) considering a study to determine the effects of the changes made in OPAC at Alexander Technological Educational Institution of Thessaloniki, Greece. The library updated the online help and enriched with examples on how to use the catalogue and the options used rarely or almost not all

were removed. The OPAC search strategy was changed and become simpler and more user friendly for novice users.

Mulla and Chandrashekara (2009) studied to determine the effective use of OPAC at the libraries of engineering colleges in Karnataka. Presently in Karnataka, there are 128 engineering colleges, out of which only 43 colleges are providing OPAC search facility. 1716 questionnaire were distributed randomly, out of which 1338 (77.97%) were received. The study highlighted that there is lack of awareness between the users and the OPAC is not user friendly software. Most of the users were facing the problem of lack of terminals and guidelines or orientation. The users are facing certain difficulties in making proper use of the OPAC facility. Thus, the study suggested the need an OPAC training program for users to promote the effective usage of OPAC.

Sauperl and Saye (2009) observed that librarians have actually made their OPACs more user-friendly by adopting techniques and technologies already present in other resources. Researchers analysed four OPAC (Library of Congress Online Catalogue, Slovenian National Union Catalogue, North Carolina State University Libraries, and WorldCat), one online bookstore (Amazon) and two Internet search engines (Google Search and Google Scholar). They reviewed some of the changes and directions suggested by distinct researchers. The findings demonstrated changes identified in the information services studied over a seven year period. Least development was found in library catalogues. It was suggested that OPAC must be both attractive and useful. They should at least as easy to use as their competitors.

Williams (2009) deliberated how the knowledge of MARC could be useful for OPAC among library professionals. Researchers employed examples and scenarios to show the usefulness of MARC knowledge. The study revealed that an understanding of MARC data allows cataloguing, user services, and system libraries to understand the interaction of their areas with the OPAC in providing services to end users. Catalogue librarians can use their knowledge of MARC to manipulate OPAC operation and user service librarians' direct interaction with users could affect OPAC functionality.

Adedibu (2008) shown that a preponderance of the student users use library catalogues to locate intellectual materials. Most respondents claimed to know how to use the card catalogues and OPAC but only a few use them. A limited number of respondents have sought the assistance of a library staff in the use of catalogues. Although a majority prefers the subject catalogue to the author/title catalogue, they still use a combination of both catalogue types. Use of the library catalogues was found to increase as the respondents' progress in their academic career.

Ansari and Amita (2008) studied the applicability and utility of the OPAC in five libraries in New Delhi, i.e. JNU, Jamia Millia Islamia University, IIT, NISCAIR and DESIDOC. A questionnaire was distributed randomly to 128 users, out of which, 115 responded. This study found that most of users (56 per cent) generally preferred the OPAC for searching for their documents. The study recorded that the users were moderately (38 per cent) aware about the expert search. Most of users had tendency to use the OPAC frequently, only 6 per cent users avoided to use the OPAC. Most of users (39 per cent) changed the search option when search fails; 29 per cent took help from the library staff; 23 per cent checked the keywords and 9 per cent never tried again. 35 per cent of users were fully satisfied with the success and half of users were moderately satisfied. The users expressed that library staff was very good in their behaviour.

Husain and Ansari (2008) studied the OPAC modules of Alice for Windows, LibSys and Virtua software. The study revealed that each OPAC module has its own capabilities and limitations. It depends on individual libraries which library software package fulfils their needs and requirement. All the three OPAC modules offer multiple search strategies, multiple access, patron empowerment, Z39.50 compliant, security and full-text retrievals. LibSys and Virtua provide filtering (search limiting) and multilingual access through Unicode. For tracing a document at a particular location in the library, the map facility and automatic keyword generation through title, author and notes area are strong characteristics in Alice for Windows. In LibSys, KWIC/KWOC indexes and proximity connectors are powerful characteristics. Virtua's Unicode support and patron empowerment are the attractive characteristics for the libraries.

Mahmood (2008) explored a study to analyse characteristics and functions of 16 indigenous Web- OPACs of Pakistan libraries. The assessment of 16 Web-OPACs was based on a 91 item checklist developed with the help of previous studies conducted in other countries. The approach taken for data collection was to survey and analyse Web based catalogues accessible via the Internet. The findings Displayed that indigenous Web-OPACs were at initial stage of development and only offered basic facilities to their users. They did not offer facilities that many OPACs in advanced countries already had offered. It was found in the study that there was absence of MARC format and Z39.50 protocol in Web-OPACs, which are essential for shared cataloguing. Due to lack of training and awareness for librarians, MARC standards are not well-known in Pakistan.

Rajput et.al. (2008) studied the use of the OPAC by the users in Devi Ahilya University Library, Indore, Madhya Pradesh. The methodology adopted for this study was questionnaire-based survey and four hundred users were included.

Singh et.al. (2008) carried out a study to know the use and satisfaction of users about OPAC Online Access Catalogue provided by the Devi Ahilya University Library. The study revealed that the tool OPAC is useful and suggested there must be someone near the OPAC to help in retrieving the required documents.

Wanigasooriya (2008) attempted the study of problems faced by the OPAC users in Sri Lankan university libraries have recognized the 10 major issues. To overcome these problems the users need to have a high level of computer literacy. Hildreth (2001) compared users' search performance and assessments of ease of use, system usefulness, and satisfaction with search results after use of Web- OPAC or its conventional counterpart. The study indicated that Web- OPAC searchers outperformed text OPAC searchers, but search task level of difficulty was a major determinant of search success. No association was found between satisfaction with search results and actual search performance. A strong positive correlation was found between perception of system ease of use and assessment of search results. Upper division students rated both OPACs easier to use than lower division students. A significant association was discovered between frequency of Web searching and satisfaction with results and system usefulness.

Kapoor and Goyal (2007) investigated the functional comparison of five Web based OPACs available in five Indian academic libraries i.e. IIT, Delhi, University of Hyderabad, University of Goa, GGS Indraprastha University, Delhi and IIM, Nirma.

Yushiana and Rani (2007) analysed the usability of a Web-based OPAC user interface at the International Islamic University Malaysia. This study also looked at the applicability of heuristic evaluation in designing a user-centered Web-OPAC interface. A detailed checklist was provided to participants to examine the Web- OPAC user interface. The checklist provided the list of desirable heuristic properties to the respondents. The results of the study found that the Web- OPAC interface confirmed to at least 70 percentage usability properties. Some usability problems violated in the interface were identified. The study suggested that heuristic evaluation is applicable in libraries to assess the usability of user interface for online catalogues. Heuristic evaluation assists libraries in designing user-centered interface for online catalogues.

Cherry, Muter and Szigeti (2006) examined whether there is a correlation between user performance and compliance with screen-design guidelines found in the literature. Nine bibliographic display formats were scored using a checklist of eighty six guidelines. Twenty-seven users completed ninety search tasks using displays in a simulated Web environment. None of the correlations indicated that user performance was statistically significantly faster with greater conformity to guidelines. In a supplementary study, a distinct set of forty-three guidelines and the user performance data from the main study was used. Again, none of the correlation indicated that user performance was statistically significantly faster with greater conformity to guidelines. The lack of agreement in interpreting the guidelines was in both the main study and supplementary study. The study indicated that further research is needed to confirm or refute the findings of this study.

Nath , A. and Sharma, A, (2006) investigated to know the use of OPAC by the research scholars in AC Joshi Library, Chandigarh for this purpose with the help of questionnaire an attempt has been made in the present paper to identify the research scholar's opinion on the use of OPAC. Further an attempt has been made to

highlight the findings of the study and based on the analysis of the data a few suggestions have been given

Rashid Husain & Mehtab Alam Ansari (2006) studied that OPAC is an interactive search module of an automated library management system. Any record is searched directly from a node within a database of the organisation or remotely through national and international networks. Thus finally we see that a lot of cataloguing work due to availability of various Web OPACs is reduced. Web OPACs improve the quality, speed and performance of the services offered by the libraries. The inter-library loan becomes easier with the use of e-mail and web. Members can see the collection and issue status of each document of the information centre. They could reserve or request online for the document of their interest.

Sangam and Prakash (2006) highlighted that academic and research libraries spend lot of money on acquiring electronic resources and to create their own digital resources and it is vital for libraries to provide useful access to these materials. The traditional method of providing access to print resources is the online catalogue. The purpose of the catalogue was once to provide bibliographic control for a host of resources physically owned by an individual library.

Guha and Saraf (2005) concluded how users interacted searching on the OPAC and whether they are satisfied or dissatisfied or confused. The investigators adopted the verbal protocol method on a sample of 18 OPAC users of British Council Library in Kolkata. The results revealed that most of users actually Displayed dissatisfaction and were confused while using the online catalogue. The users who expressed satisfaction while using the OPAC, really did not use for very long, whereas most of the users who Displayed dissatisfaction used system for a long period of time. The study also suggested that the verbal protocol method had a great potential in library and information science research.

Ibrahim (2005) observed the compliance of ten bilingual Arabic scripts Web- based catalogues in the Gulf Cooperative Council (GCC). The study was confined only to Arabic script bibliographic records of the OPACs via the Internet. The findings revealed that the majority of the OPACs provided simple, quick,

general and advanced searches. All surveyed catalogues offered access points by author, title, subject and keyword. There was inconsistency in access points and types of searches. Hyperlinks to bibliographic elements was not uniform over all the surveyed OPACs, the majority of the OPACs provided hyperlinks only to the author entry. About half of the OPACs provided hyperlinks to both authors and subjects. The instruction information or user assistance has gained the highest score. MARC format was not utilized in over two thirds of the surveyed OPACs as well as the Z39.50 protocol.

Schallier (2005) explained three OPAC interfaces of Katholieke Universiteit Leuven University Library. All three interfaces had been online between 2002 and 2005. The characteristics of these OPACs were systematically examined. Special attention was given to subject search and display, and more specially to Universal Decimal Classification (UDC) and Medical Subject Heading (MeSH). The comparison was particularly interesting because the indexing and classification tools (UDC, LCSH and MeSH) remained the same in all three OPACs. However, the way these tools were presented for subject retrieval in the respective OPACs underwent an interesting evolution. It was observed that subject search and display in library catalogues should be improved. Author also stressed on the importance of user-oriented OPAC design.

Fast and Campbell (2004) highlighted an exploratory study on university student's perception of searching Web search engines and Web-based OPACs. The study included 8 first-year undergraduate students and 8 graduate students from Library and Information Science. The participants conducted the searches on a university OPAC and Google. The interviews and think-afters revealed that while students were aware of the problems inherent in Web searching and of the many ways in which

Novotny (2004) studied a protocol analysis study to explore how a web savvy generation of library users searches the online catalogue. 18 users, including experienced and novice searchers were recruited to observe their searching in online catalogue at Pennsylvania State University. Participants agreed to record and to express their thoughts aloud while searching. After completion of the tasks,

participants were interviewed to explore ambiguous actions and to solicit additional feedback about the online catalogue. Analysis of these data revealed several distinct trends. Most notable among these trends was the impact of Internet search engines on user expectations.

Sridhar (2004) investigated that the users' behaviour about OPAC in ISRO Satellite Centre Library, Bangalore and compared with the findings of the study of card catalogue of the same library conducted 17 years ago. Four hundred and ten users were observed for ten days. The study revealed that searches by title had substantially increased from 8 percent in card catalogue to 38.3 percent in the OPAC. Subject searches had dropped substantially from 54.2 per cent in the case of card catalogue to mere 30.7 percent in the OPAC. However, the author approach had marginally dropped (from 35.4 per cent to 26.8 per cent) from card catalogue to the OPAC. The purpose of the catalogue had been changed as the OPAC had enabled the users to search new arrivals, querying circulation system for check out and reservation status as well quick, enhanced and easy access from the work place of the users.

Babu and Tamizhchelvan (2003) studied a research survey on the characteristics provided in the OPACs in Tamil Nadu. A questionnaire was drafted based on the checklist of the characteristics and functions of a Web- OPAC interface developed by Babu and O' Brien (2000). The questionnaire was distributed among 50 libraries in Tamil Nadu, out of which 36 responded. The study indicated that among the search methods "exact searching", "search by Boolean Logic", and "truncation" were provided in more than two-thirds of the sample and almost all libraries had simple search characteristics. Nearly two-thirds of OPACs provided search limits such as publication year. As many as 11 access points were provided in a majority of libraries. However, the traditional access points, like author, title, class number and accession number dominated in all OPACs. The provision of subject search was generally not based on controlled vocabulary tools. Two-thirds of libraries had user assistance.

Ariyapala and Edzan (2002) observed the OPAC user behaviour of foreign postgraduate students at the University of Malaya Library. The result revealed that

most of students from developing countries possessed various levels of OPAC use abilities. Most of users indicated that there are no OPAC facilities in their home countries and if available it is limited to university libraries. OPAC searches were available for title, subject, author/title keyword and author. Title searches were the most frequently used. Students using the University of Malaya Library indicated that the OPAC is relatively easy to use but students were moderately successful in locating items. Students self-trained themselves when using the OPAC.

Shaker (2002) studied a study on bibliographic access to non-Roman scripts in library OAPCs of selected ARL academic libraries in the United States. The data was collected through questionnaire from the ARL libraries under study. 45 questionnaires were obtained, which represented 65% of an actual population of 69 libraries cataloguers.

Hildreth (2001) studied users' search performance and assessments of ease of use, system usefulness, and satisfaction with search results after use of Web-OPAC or its conventional counterpart. The study indicated that Web- OPAC searchers outperformed text OPAC searchers, but search task level of difficulty was a major determinant of search success. No association was found between satisfaction with search results and actual search performance. A strong positive correlation was found between perception of system ease of use and assessment of search results. Upper division students rated both OPACs easier to use than lower division students. A significant association was discovered between frequency of Web searching and satisfaction with results and system usefulness.

Abdullah (2000) observed search behaviour of international graduate students of Florida State University towards the use of online catalogue. A random sample of 300 international students had been selected for the study. The study found that the users preferred keyword file for unknown item searches and author file for known item searches. They searched the catalogue unsystematically using what they thought of at the time. They rarely used LCSH even when they searched the subject heading file. They underutilized the advanced characteristics beyond the Boolean operators and preferred to learn the system through personal exploration.

The factors like gender, stage of study and field of study influenced the behaviour search.

Babu and O'Brien (2000) studied the characteristics and functions of six popular Web OPAC interfaces which were in the use in UK academic libraries. A checklist had been developed as an indicator of the important characteristics and functions offered in the OPACs. The characteristics of the OPACs were compared with this checklist. It was discovered that all OPACs had similar purposes. They offered sophisticated and effective capabilities. They also linked the catalogue with internal and external databases thus integrating the approach to retrieving information.

According to **Harmsen (2000)** explained "Web OPACs are an advanced generation of traditional OPACs serving as a gateway to the resources not only held by a particular library but also to the holdings of other linked to full-text resources."

Slone (2000) showed a qualitative study on strategies and behaviours of public library users during interaction with Online Public Access Catalogue and users' confidence in finding out needed information online. Questionnaire, interview and observation methods were employed to gather the data from 32 public library users at the Wake County Library Raleigh, North Carolina. The results Displayed that search behaviours, confidence and other feedings were varied based on three types of searches: unknown-item searches, area searches and known-item searches. Term generation was the most important factor in unknown-item search strategies. Speed and convenience played a role in area searches and simplicity characterized known- item searches of the three types. Unknown-item searchers experienced the most disappointment and while the area searchers were the fully confident and satisfied.

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CHAPTER-3

PROFILE OF THE CENTRAL UNIVERSITY LIBRARIES IN UTTAR PRADESH

CHAPTER - 3

PROFILE OF THE CENTRAL UNIVERSITY LIBRARIES IN UTTAR PRADESH

3.1. INTRODUCTION: ALIGARH MUSLIM UNIVERSITY, ALIGARH

The Aligarh Muslim University was established in the year 1877. The AMU owes its origin to the Aligarh movement which was started by the late Sir Syed Ahmad Khan in the later part of the last century. As a result of his efforts, the erstwhile Mohammadan Anglo-Oriental College was opened at Aligarh in 1875. Since 1899, attempts were made to collect funds for raising the college to the status of a university. The Aligarh Muslim University Act came into force in 1920. Several amendments have been made in the Act from time to time.

The jurisdiction of the university extends over a radius of 25 km from the university mosque. The university campus covers an area of 1,200 acres of land. There are 11 faculties, 76 teaching departments and 11 maintained institutions under the jurisdiction of the university. All the departments and institutions are located at Aligarh.

3.1.1 Maulana Azad Library (MAL):

MAL of Aligarh Muslim University is one of the major university libraries in the country. The university library occupies a central position in the campus. It is located in front of the huge building of the faculty of Arts. The inverted T shaped library is a double storied building with eight tiers of stacks. Besides ground and first floor, there is a basement which at present houses the reprography unit and the electric room and has got a separate entrance from the outside.

The library is open for 24 hours. The total sitting capacity of the MAL is 800 only. The UGC is the only source of finance for the maintenance and their expansion. The MAU Library services expenditure is comparatively higher than any other university libraries. AMU Library receivs Rs. 1.53 crores as recurring grant from Central Government and Rs. 47 lacs from UGC as non-recurring grant.

The library has collection of books in English, German, French, Russian, Spanish and Italian languages. Its collection of books in oriental languages is also extremely valuable which comprises of books in Hindi, Sanskrit, Urdu, Persian, Turkish, Arabic, Telgu, Tamil and Malyalam languages. Besides, it has a vast collection of microfilms, microfiches, microcards, phono-discs and other audio-visual materials. It is known for its massive collection of manuscripts. It subscribes to about 2,200 journals and gets another 200 titles as gratis. Its resources are fully utilized by the scholars. Besides the MAL, there is a network of libraries on the campus such as faculty, department and hall libraries, most of which remain open for about 12 hours a day.

Table.3.1. Library Collections of AMU

S.N.	DISCRIPTION	NUMBER
1	Thesis and Dissertations	15000
2	Books	13,00,000
3	E-Books	1,20,000
4	Online Full Text Thesis	3,00,000

Table.3.2 Library Staff of AMU

S.N.	STAFF DISCRIPTION	DESIGNATION
1	Dr. Amjad Ali	University Librarian
2	Dr. Shayesta Bedar	Assistant Librarians
3	Dr. T.S. Asghar	Assistant Librarians
4	Ms. S.Rana Askari	Assistant Librarians
5	Mr. Asif Fareed Siddiqui	Assistant Librarians
6	Ms. Talat Kaniz Fatima	Assistant Librarians

3.2. INTRODUCTION: BABASAHEB BHIMRAO AMBEDKAR UNIVERSITY, LUCKNOW

Babasaheb Bhimrao Ambedkar University was established on 10th Jan 1996. University campus covers an area of about 250 acres. With the objectives of promoting educational needs of the marginalized people, particularly the SC/ST communities and women. In essence, all the academic, research, and out-reach programmes of BBAU, including the University's Act and Statutes, are informed by Dr Ambedkar's basic philosophy of making education the tool for a holistic socio-cultural transformation that first addresses the aspirations of the most deprived section of our society.

Babasaheb Bhimrao Ambedkar University, Lucknow is a Central University in the country. This residential University is located at the Raebarely road about 10 kms south of railway station, (Charbagh) Lucknow. The main objective of the University is to promote advancement of knowledge by providing instructional and research facilities in key areas of science, Technology and other allied disciplines.

Babasaheb Bhimrao Ambedkar University is a fairly well-spread, student-centric Institute, with more than 4800 students enrolled in a broad range of graduate, post-graduate & doctorate programs including several professional schools. The 51 new innovative and contemporary courses started in the fall of 2013 amply reflect a world-class hub for education and innovation, featuring the latest in classroom teaching technology, an Industrial Courtyard for collaborative work with the top regional and national institutes and research labs.

At present, there are six functioning Schools for information Science and Technology, Bioscience and Biotechnology, Legal Studies, Ambedkar Studies, Environmental Science and Home Science which comprising of15 Departments i.e., Department of Library & Information Science, Computer Science, Information Technology, Mass Communication and Journalism, Applied Animal Science, Applied Plant Science, Biotechnology, Law, Human Rights, History, Economics, Sociology, Political Science, Environmental Science, Home Science.

In the coming year, BBAU will be taking up a range of other activities designed to further preserve our environment; provide learning experiences that develop inter-culturally capable graduates who can make a difference as socially and ethically responsible global citizens; address many obstacles confronting excellence within the University by enforcing strong leadership at all levels in academic, student life, service, and administrative areas; develop a student-centered success culture and a staff-centered enabling culture; advance the international reach and influence with rigorous scholarship, collaborations, professional preparation, and strategic initiatives, focus on emerging global educational trends and fair and sustainable human development; digging more rain harvesting pits; and planting more trees. The University also plans to own a radio station for the dissemination of community oriented information, education and knowledge.

3.2.1 Gautam Buddha Central Library, BBAU, Lucknow

The library is the heart of the university. The Central Library, BBAU, Lucknow has been named as Gautam Buddha Library after the name of Lord Gautam Buddha. The foundation of the library services of Babasaheb Bhimrao Ambedkar University, Lucknow was laid in January 1998. Keeping with the version and mission of the University, the library has been established "to promote knowledge and application through its effective dissemination of knowledge and information". The library acts as learning resource centre of the University to supplement education and information needs of the faculty and students. It also provides information services and facilities to meet the requirement of the teaching, training, and research programmes. The library services are also open to University staff and visitors. During the Year 2014-15, the modular furniture has been brought for the students. Now the reading capacity of the Library has increased as 500 at a time. The inauguration of the Lifts in the Library has done by the Hon'ble Vice Chancellor by this; the movement of students from one to another floor becomes easy. The library building is fully fleshed Air-Conditioned building. It is in the centre of the university campus i.e. on the half way from each entrance gate.

Table.3.3 Library Collections of BBAU

S.N.	DISCRIPTION	NUMBER
1	Books	48,374
2	Thesis/ Diss.	1284
3	E-Resources	9426 (approx.)
4	Print Journals	84
5	Magazines	54
6	Newspaper	24

Table.3.4 Library Staff of BBAU

S.N.	STAFF DISCRIPTION	DESIGNATION
1	Dr. Sunil Goria	University Librarian
2	Mr. O.P Saini	Assistant Librarians
3	Nitesh Kumar Verma	Assistant Librarians
4	Nilesh Kumar	Professional Assistant

3.3. INTRODUCTION: BANARAS HINDU UNIVERSITY, VARANASI

The proposal to establish Hindu University at Banaras was first made at a meeting held in 1904 under the presidentship of H.H. Maharaja Prabhu Narayan Singh of Banaras. A prospectus of the proposed university was drawn up and discussed at various levels. Pt. Madan Mohan Malviya, the prime mover of the scheme, dedicated his life to this work. The prospectus prepared earlier was revised in 1907. Pt. Malaviya persuaded Dr. Annie Besant (Who has founded the Central Hindu College at Banaras and who was working for the establishment of a university) and Maharaja Rameshwar Singh of Darbhanga (who was sponsoring Sharda Vidyapeeth) to give up their respective schemes and lend their active support to the establishment of the university.

The Banaras Hindu University Society was registered in 1911 and the Central Hindu College was handed over to the society. The Hindu University Act (Act XVI of 1915) got the assent of the Governor General of India, who laid the foundation stone of the University on February 4, 1916. The University began functioning from October 1, 1917.

The University has power to maintain colleges and institutions including high schools within a radius of fifteen miles from the main temple of the University. The university may also found and maintain (within or beyond the aforementioned limits) special centres and laboratories for research in humanitics, science and technology, education, medicine and other subjects and spheres of learning and knowledge. The university has 3 institutes, 14 faculties, 2 constituent colleges, 4 affiliated colleges under its jurisdiction.

Besides, there are three schools which are looked after by the School Board of the University. Two schools prepare students for 12 year courses in Arts and Science and Commerce and one school conducts 8 years Prathama, 10 years Praveshika and 12 years Madhyama courses.

3.3.1 The Central library of University: (Sayaji Rao Gaekwad Library)

The BHU library, one of the largest university libraries in the country had its germ seed in a small but precious collection donated in the memory of late Justice Kashinath Trimbak Telang by his son Prof. P.K. Telang and housed in the Telang Hall of the Central Hindu College, Kamachha. Nurtured in the age of its infancy by renowned historian Sir Jadunath Sarkar, it has been its fortune to have eminent personalities like Dr. S.R. Ranganathan, the father of Library movement in India, Dr. J.S. Sharma and Prof. P.N. Kaula as its librarian.

The BHU with 14 faculties comprising 116 subject department has a library system with the cental library at the apex, three institute libraries namely Institute of Agricultural Sciences, Institute of Technology and Institute of Medical Sciences, eight Faculty libraries, 25 departmental libraries mainly in the faculties of Science and Arts which have no faculty libraries. It is one of the largest university library systems in the country. The BHU library system is not only serving the clientele from the university itself but it is also performing the function of a regional library.

The library's total grant is Rs. 2.5 crores. The university library contains number of books, periodicals and thesis. The total number of staff is 152. The library

has 500 reading seats. Facilities for microfilming and photocopying exist in the library. BHU library has also acquired computers under INFLIBNET NETWORK Programme and progressing towards computerization of library .

Table.3.5 Library Collections of BHU

S.N.	DISCRIPTION	NUMBER
1	Books	9,76,411
2	Journals (bound Vols)	1,33,792
3	Current Journals	406
4	Manuscripts	7,233
5	UN &Govt. Publications, Staff Publications, Rare & Out Of Print Books, Local History collection, University & its Founder Collection	3,632
6	Online Journals	11,272
7	Databases	10
8	E-Books	52,560
9	Ph.D Thesis	14,748

Table.3.6 Library Staff of BHU

S.N.	STAFF DISCRIPTION	DESIGNATION
1	Prof. H.N. Prasad	University Librarian
2	Dr. M. Anandamurugan	Deputy Librarian
3	Dr. Sanjeev Saraf	Deputy Librarian
4	Dr. D.K Singh	Deputy Librarian
5	Dr. Vivekanand Jain	Deputy Librarian
6	Dr. Rajesh Kumar Singh	Deputy Librarian
7	Dr. Suchita Singh	Deputy Librarian
8	Sri V.K. Mishra	Deputy Librarian
9	Dr. Anil Agarwal,	Assistant Librarians
10	Dr. Jawahar Lal,	Assistant Librarians
11	Dr. Sneha Tripathi	Assistant Librarians
12	Ms. Shruti Lal	Assistant Librarians

3.4. INTRODUCTION: UNIVERSITY OF ALLAHABAD, ALLAHABAD

The University of Allahabad was established in 1887. The building of the Allahabad University library was constructed in 1912 along with the Senate Hall and Law Department. This building was extended in 1939. Its reading hall was constructed in 1950. The construction of a new library building was taken up in 1961.

An Act was passed in 1922 for reorganization of the university as a unitary, teaching and residential institution with control over the quality and character of teaching in constituent colleges. The Muir Central College became the nucleus of the teaching university, the jurisdiction of which was limited to territorial area of a radius of ten miles from the convocation hall. In 1955, by a further amendment to the University Act, three categories of colleges came into existence : Colleges of the university which were residential for students or recognized by the University for tutorial and supplementary instructions; Associated Colleges which were also residential and provided full degree courses as distinct from tutorial instruction and a Constituent College which was residential, provided degree courses and was maintained by the State Government.

The earlier Act was repealed by the U.P. State Universities Act, 1973 and subsequently re-enacted with certain modifications by the U.P. Universities (Reenactment and Amendment Act, 1974) (UP Act No. 29 of 1974).

The jurisdiction of the university extends to an area within a radius of 16 kms. from the Senate Hall. There are three university colleges which supplement instructions given by the University, eleven associated colleges providing degree courses and one constituent college maintained by U.P. Government which fall within the territorial jurisdiction of the university. During the year 1983–84, there were 31,700 students in the various teaching departments and colleges of the university.

3.4.1 The University Library: Central Library

The Central Library is one of the oldest and the largest library in Indian subcontinent. The central library was developed out of the libraries of Muir Central College, and the libraries set was done by itself during 1904-1922. It has 3 store building having all the facilities needed for a modern library.

The Central Library has started its journey on the path of improvement. It was established to cater the needs of the students, research scholars, and teachers of the University. It not only helps in supporting the class room instructional programmes of the university, but also unfolds the horizon of knowledge in regard to the different research programmes carried out by the university.

In the collections of library one can find nearly 7 lacs volume and subscribes to 422 current periodicals in the library. There is also a vast collection of back volumes of journals, manuscripts, coins and non-print materials. On growing up with the modern times the library also provides on-line access of journals through UGC-Infonet Digital Library Consortium, an INFLIBNET/UGC initiative to serve its client with quality material. There are also departmental libraries for the use of teachers and students.

Table.3.7 Library Collections of UOA

S.N.	DISCRIPTION	NUMBER
1	Books and Bound Vols. Journals	739344
2	Ph.D. Thesis	16924
3	E-Books	2285
4	Current Journals	287
5	On-line Journals	24375+
6	Online Databases	18
7	Current popular Magazines	32
8	Newspapers	16
9	Books and Bound Vols. Journals	739344

Table.3.8 Library Staff of UOA

S.N.	STAFF DISCRIPTION	DESIGNATION
1	Dr. B.K Singh	University Librarian

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CHAPTER- 4

ONLINE PUBLIC ACCESS CATALOGUE: AN OVERVIEW

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ONLINE PUBLIC ACCESS CATALOGUE: AN OVERVIEW

4.1 Historical Background of OPAC

Over the past decade, ever-increasing number of libraries is in the process of abandoning the traditional card catalogue as a means of access to their collections and switching over to computer-based catalogue. This phenomenon is characterized as transition from manual methods to mechanical method in the design and development of Online Catalogues, it knows as OPAC (Ramesh, 2008). Through the Online Public Access Catalogue (OPAC) now functions against a background of alternative information-gathering technologies it is likely to remain at the center of library operations for the foreseeable future as the primary automated point of connection between library users and those information resources which the library owns. OPACs have a necessary role in preserving access to library collections, maintaining, consistent and authoritative form of bibliographic control and providing a targeted information environment for specific client groups (Wells, 2007).

It is computer based and supported library catalogue designed to be accessed via terminals so that library users may directly and effectively search for and retrieve bibliographic records without the assistance of a human intermediary. OPAC usually allows searching by author name, title, and subject. OPAC proved access to the library's holdings via a computer monitor, replacing the traditional card catalogue. OPACs were introduced in the US in the late seventies and in the UK in early eighties. These have also been introduced in a few libraries. In India libraries have adopted mostly in-house developed software in the design and development of OPACs (Aswal, 2006).

4.2 Definitions of OPAC:

Hildreth defines Online Public Access Catalogue (OPAC) as follows: "It is time to start thinking of the online public access catalogue as an intelligent gateway to diverse, integrated information specialist and the library patron or and user; a gateway accessible not only in libraries but at places of work. Perhaps someday the online catalogue will just be called 'my online library".

4.3 Development of OPAC:

Since their emergence, OPACs have undergone large scale improvements but the basic contention remains their accessibility by library clientele without any formal training. In the light of their functions, capabilities, OPACs according to Hildreth have developed through the following three generations:

a) First-generation OPACs.
b) Seconds-generations OPACs
c) Thirds-generations OPACs.

a) First generations OPACs: Phrase searching OPACs', as they are generally called, were in a way the machine readable forms of conventional catalogues providing such access points as class mark, author, title , subject as phrase and simple left to right phrase matching. Such systems had certain obvious drawbacks, for the probability of exact matching between search phrases with indexing terms was rather small: Much of the computer capabilities were wasted as the system worked like a card catalogue. It was not user-friendly as user/system interaction was quite limited.

b) Second-generation OPACs: Most of the existing OPACs are still at this stage. Influenced by the commercial bibliographic database, second generation OPACs have adopted many of their features likes 'online help messages', `alphabetical index displays' for searching search terms and using `Boolean logic' for their combination and effective retrieval. Despite the improvements, the second generations OPACs have made the first generation.

c) Third-generation OPACs: The above listed deficiencies were investigated and some of the remedies that emerged were incorporated into third generation OPACs to enhance their subject searching capability. These systems are enriched by the inclusion of additional controlled and uncontrolled access points. Queries are accepted as a 'natural language' statement eliminating the need for the user to know quarry formulation and search techniques. Some of the systems use partial match techniques instead of Boolean operators. The retrieved sets are sometimes ranked according to the query relevance. These catalogues ensure vastly improved search system interaction at every level of the search process.

4.4 Subject Access in OPAC:

Subject searching in online catalogues requires the translation of user's Information need into the terms that have been used in the system's vocabulary. They are then put in some specific statements in the command language of the online catalogue, matched system's vocabulary retrieve the records to be delivered to the users. During this process, not all the subject searches are one hundred percent successful. They result sometimes in 'no retrieval' or 'too many' records. So that the users will be discouraged to proceed furthers. In case user suffers these two problems 'search failure' and 'Information overloaded'.

A. Search Failure: A search failure, generally deemed to be a search that retrieves nothings, is not always that obvious. If the retrieved items do not best serve the users needs, the search will be no better than a failure. However, a successful search depends upon the perfect coordination between the users and the system. Any major deficiency on the part of either of the two, results in search failure. Users are always not to able formulating their search according to the terminology of the system. Difficulties in formulating a search strategy involve problems of syntax, semantics, choice of access points and how to narrow or broaden a search, etc. Therefore, follows that users' lack of knowledge, doing misspelling and mistyping account for a few causes of search failure.

B. Information Overloaded: Information overloaded refers to phenomenon of the retrieval of too many references in response to a subject search so that a user's actually gets be wildered and frustrated and may choose not to go further few reason given below:

a) The search term may be too broad.

b) The number of items indexed under a given term might be increasing, as an online catalogue database grows. This increase may be more rapid in a keyword approach then in a subject heading approach.

c) Truncation of items as compared to exact search terms results in higher recall.

d) Boolean OR operator often created the problem of information overload. For example, a request 'A or B or C' will retrieve document indexed by any one of these terms as well as documents indexed by all of them (Husain, 1992).

4.5 Searching through OPAC:

The OPAC system has changed the traditional concept of access drastically. It allows multi-dimensional searches providing as a many access points as the data elements depending on the software used. It is an advantage over the linear search provisions in the earlier forms of catalogue. OPACs, allow searches through the access points as author, title, subject, class, keyword, combination etc. OPACs in some modern software provide additional provision of truncation of terms is also available in the OPAC system. This option makes the system most flexible. Two types of searches are possible

i) Simple search;
ii) Complex search

i) Simple search:

- **Author:** The search for a document through OPAC is very easy is the name of the author is known to the user. Generally, the last name of the author will be the entry element.
- **Title:** Searching for documents by title is similar to searching by author. For title search, users have to select the title option in the menu and type the words in the title of the document. The initial articles are often omitted. In the OPAC system in modern software, users need not type the complete words in the title as the computer will list a certain number of titles in the alphabetical order.
- **Class Number:** The Search using the class number requires the user's knowledge of the class number of a particular subject. For an exhaustive search for document in a subject, class number search is useful.
- **Keyword:** Many OPAC systems in modern library software provide keywords search option. This greater flexibility of access to the bibliographic records. In key work search, documents can be searched after using a single word appearing in the name of the author, title Subject or abstract /content depending on the details given in the database. Keyword searching has the flexibility to allow the user to create simple searches and yet a allows the experienced user to build sophisticated searches through precision searching and filtering. Precision Searching provides enhanced control through expanded keyword search capabilities using the following tools (Aswal, 2006):

- Keywords
- Phrase searching
- Full text searching

The disadvantage of the keyword search is that system will relieve some last relevant document as well.

ii) Complex search:

Boolean operators (AND, OR, NOT) a backbone of almost all information retrieval systems including OPACs, through usually considered good for retrieval for exploiting only a portion of information potentially available in the systems. Some main objectives given below:

- **AND Logic:** If two terms in a search strategy are linked using the logical operator AND then the output will be the items in which both the terms are used in title or the abstract. This increases the specificity and ensures greater precision, which means only relevant documents will be listed on the computer screen as a result of the search.

- **OR Logic:** Logic helps the user to search for documents using alternate terms. If two terms are linked using OR logic in a search strategy the output will be a list of documents which contain any one of these terms in title or abstract/content.

- **NOT Logic:** The use of NOT logic is to exclude particular terms. The output of such search will exclude documents which contain the term right to the operator NOT in the search strategy.

The Boolean AND operator often results in search failure. For example, a search for 'A and B and C' will retrieve records that have all these three terms and will reject those with one or two of these terms. Boolean logic is rigid in nature, for a user making a search 'A and B' cannot indicate that the term A is more important for his search than B or vice verse. Documents are either retrieved are either retrieved or rejected, with no middle ground. Ranking of retrieval documents according to the degree of relevance to the inquiry is not possible.

4.6 Access Points and Level of Usage of OPAC:

OPAC has been the most common tool for library users and librarians, and it will be also commonly used in digital libraries. It is obvious that well designed GUI improves user-friendliness especially for novice users. Various access points provided in OPAC enables the user to locate document as well as to filter the query for obtaining result of an advanced search. Advanced search provides details of the documents that satisfy particular features or characteristics. Question was asked to disclose the access points generally used by the respondents. Choices were given and users were allowed to specify the access points used by them. The most used search key is the author and is followed by the title and the subject.

4.7 Advantages of Online Public Access Catalogue (OPAC):

The 'Karen Markey' lists the following advantages of the OPAC

- To enable a person to find a book of which another, the title or the subject is known.
- The library patrons need not wander from one place to other to follow see and see also reference.
- The patrons need not wear out pencils copying the bibliographic information, printers or down loading software provide convenience and ensure accuracy in the transfer of information.
- It is no longer necessary for a person to come to the library to use the catalog. The catalog can be wherever they are, and they can use it whether or not library itself is open.
- It addition to that, the catalog can be as up-to-date, as the holdings it represents.
- The contents for the catalog are no longer restricted to the holdings of the particular library. Theoretically, there is no limit to the number of libraries the online catalog can represent.

4.8 Awareness of the user of the Online Public Access Catalogue (OPAC):

Library OPACs are the primary key to the resources of a computerized library. It has many advantages over the traditional card and other forms of catalogue and is extensively being made use in modern computerized libraries. Apart from providing

several access points for search, OPAC has provisions to entertain several complex search queries. Online catalogue is one of the first areas of services provided by computerized libraries. All the libraries under study have their OPAC and it was observed that they are maintaining the traditional catalogue also as these traditional catalogues are also still found to be used by many. A question was asked to the users in order to check their awareness about the existence of OPAC in their respective university library as the traditional card catalogues are also in use.

4.9 Features of Online Public Access Catalogue (OPAC):

Online Public Catalog must provide searching and locating features for your online public access catalog. Specifically, OPAC offers the following key features.

- Patrons can perform various levels of searching such as Browse, Heading, keyword, Control number, and Expert.
- Patrons can select which index they wish to search such as title, author, and subject.
- Patron empowerment such as searching/viewing of own patron record.
- Filtering of searches.
- Browse searches are accumulated on tabs.
- Access to record views such as Full, MARC, Holdings,

4.10 Limitations of Online Public Access Catalogue (OPAC):

1. Do not provide online thesaurus aids useful for subject focusing/identifying terms that are broader or narrower than topic of search.

2. Do not automatically assist the user by providing alternative formulation of the search statement when the initial approach fails.

3. Do not provide sufficient assistance in the translation of the query terms into the vocabulary used in the catalogue.

4. Do not lead the searcher from successful free-text search terms (e.g. titles words) to the corresponding subject headings or class numbers assigned to a broader range of related materials.

5. Do not provide open-ended, exploratory browsing through pre-established linkages between records in the database, in order to retrieve materials related to those already found.

6. Do not rank the retrieval sets in decreasing order of probable relevance to the user's search criteria.

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CHAPTER- 5

DATA ANALYSIS AND INTERPRETATION

CHAPTER – 5

DATA ANALYSIS AND INTERPRETATION

This chapter includes analysis of data, interpretation and results. Aim of this chapter is to statistically analyze information gathered in this study about use and evaluation of Online Public Access Catalogues (OPAC) in the Central University libraries of Uttar Pradesh. This chapter is the heart of the research report. Through textual discussion, tabular and graphical presentation, the data is critically analysed and reported". A detailed primary survey was conducted during January to March, 2018 across the selected libraries of Central Universities in UP. The responses from the university libraries were satisfactory. As mentioned in the methodology four Central universities were chosen as a study area. The primary survey was conducted for three months in the study area aimed to address a host of issues regarding the use of OPAC.

The finding shows the information about the use of OPAC in libraries of Central Universities in UP. This study shows that most of the faculty member, research scholars, students and staff members known about the OPAC. This study also explores that most of users uses OPAC for the searching of documents.

On the basis of analysis, results and inferences were drawn and proposed hypotheses were tested by Chi-Square test. This chapter has been divided in two sections. **Section A** includes analysis of responses of respondent and evaluated the given objectives of the study. **Section B includes** hypotheses that are to be testified through chi- square method. Based on the findings of the present research, the conclusion and suggestions were drawn, which are summarized in the next chapter.

SECTION A

5.1 Questionnaire Responses

This part of the data analysis introduces the background data collection of users from four different Central Universities (AMU, Aligarh, BBAU, Lucknow, BHU, Varanasi, and UOA, Allahabad) of Uttar Pradesh which have supported and respond to completion of this study. A total of 603 out of 800 returned their questionnaires with a giving response rate of 75 percent (Table 5.1 and fig 5.1).

Table 5.1 Questionnaire Responses

S. N.	Items	AMU	BBAU	BHU	UOA	TOTAL	%
1	Total No. of Questionnaire distributed	200	200	200	200	800	100%
2	No. of Questionnaire Received	156 (78%)	138 (69%)	167 (83.5%)	142 (71%)	603	75%

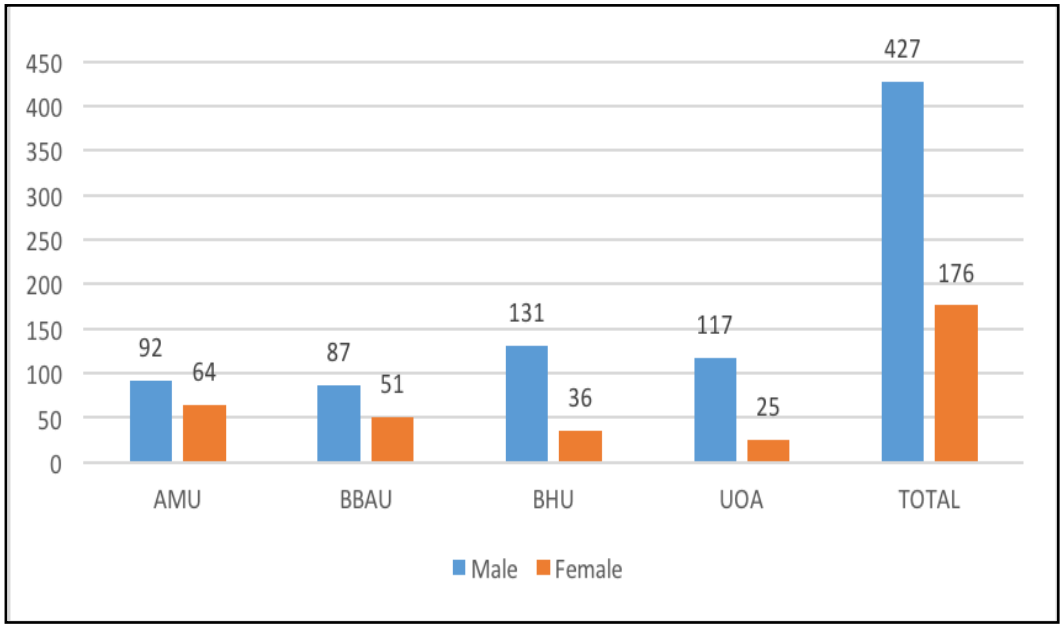

Fig.5.1 Questionnaire Responses

5.2 Gender wise Response

Table.5.2 Gender wise Response

S. N.	Gender	AMU	BBAU	BHU	UOA	TOTAL	%
1	Male	92 (58.97%)	87 (63.04%)	131 (78.44%)	117 (82.39%)	427	70%
2	Female	64 (41.02%)	51 (36.95%)	36 (21.55%)	25 (17.60%)	176	30%
	Total	156	138	167	142	603	100%

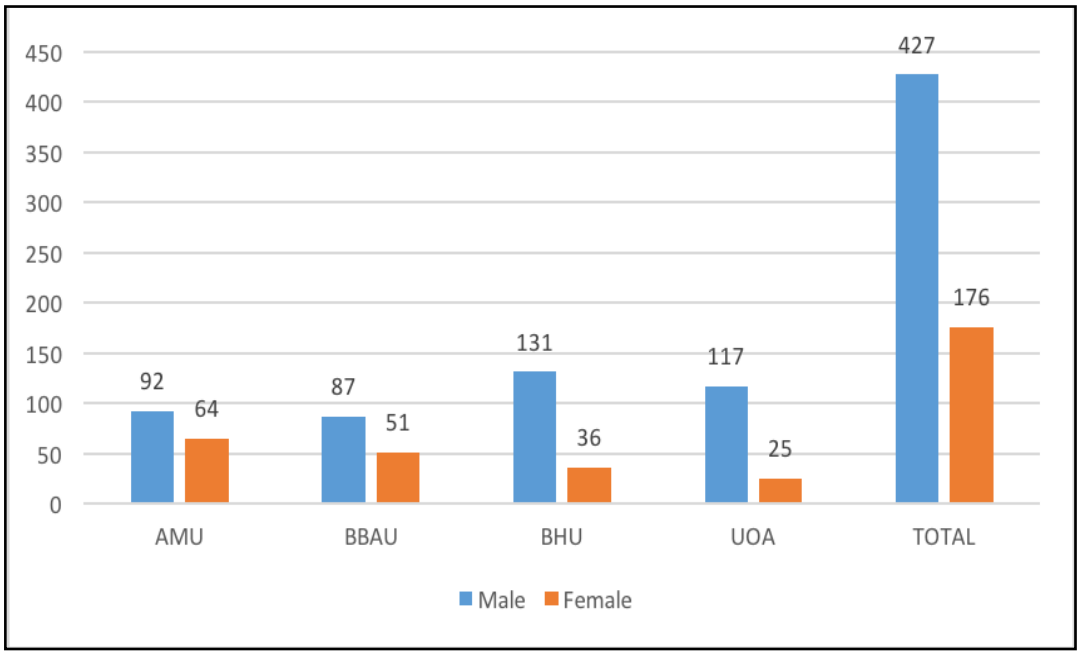

Fig.5.2 Gender wise Response

The aforesaid table 5.2 and fig 5.2 gives brief information about gender wise distribution pattern of users from four different Central Universities (AMU, Aligarh, BBAU, Lucknow, BHU, Varanasi, and UOA, Allahabad) of Uttar Pradesh. The findings of the study shows that 427 (70.0 %) users were male and 176 (30.0%) users were female out of 603 users.

In AMU, 92 (58.97%) users were male and 64 (41.02 %) users were female out of 156 users.

In BBAU, 87 (63.04%) users were male and 51 (36.95%) users were female out of 142 users.

In BHU, 131 (78.44 %) users were male and 36 (21.55 %) users were female out of 167 users.

In UOA, 117 (82.39%) users were male and 25 (17.60%)users were female out of 142 users.

5.3 Frequency of visits to the library

This study has focused on aspects of the activities of users regarding the frequency of visit in the library.

Table.5.3 Frequency of visits to the library

S. N.	Frequency	AMU	BBAU	BHU	UOA	TOTAL	%
1	Daily	124(79.48%)	71(51.44%)	102(61.07%)	84(59.15%)	381	63.18%
2	Twice in a Week	16(10.25%)	29(21.01%)	31(18.56%)	31(21.83%)	107	17.74%
3	Weekly	10(6.41%)	25(18.11%)	16 (9.58%)	12(8.45%)	63	10.44%
4	Occasionally	6(3.84%)	13(9.42%)	14(8.38%)	14(9.85%)	47	7.79%
5	Never	0	0	4(2.39)	1(0.70%)	5	0.82%
6	Total	156	138	167	142	603	100%

Chi-Square Calculated Value (X2) =39.92,

Degree of freedom = 12.0

and p value = 0.0001 (≤.05 significant)

Chi-square Critical Value (Tabulated Value) = 21.026

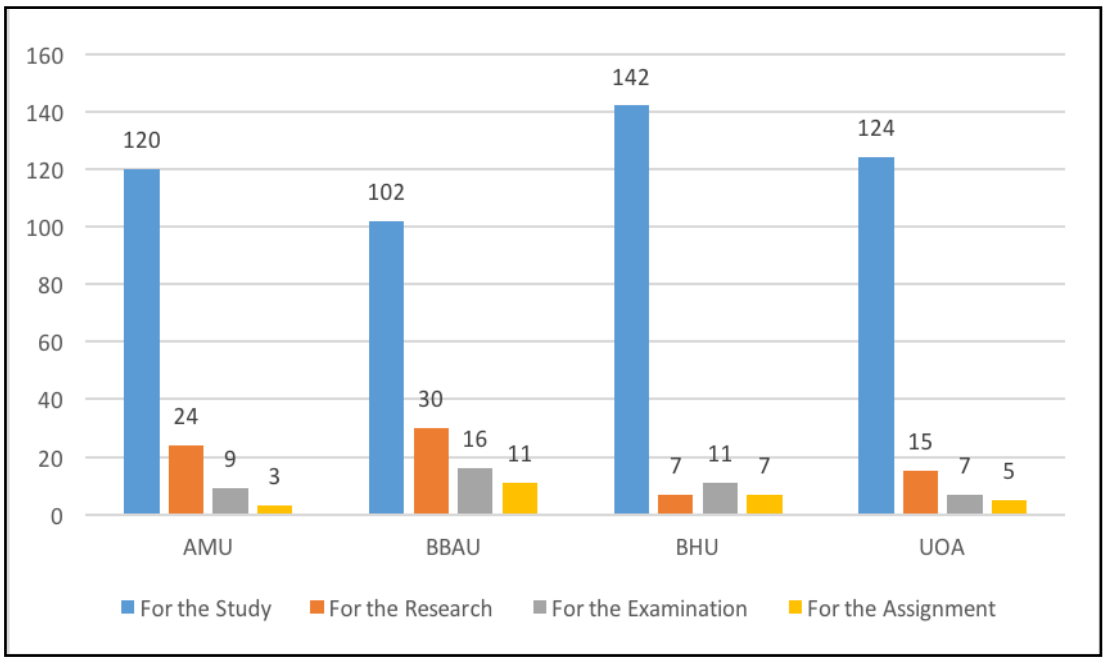

Fig. 5.3 Frequency of visits to the library

The aforesaid table 5.3 and fig 5.3 shows the visit frequency by users. The outcomes indicates that 381 (63.18%) users daily visit in library, 107 (17.74%) users visit in library twice in a week, 63 (10.44%) users weekly visit in library, 47 (7.79%) users occasionally visit in library and 5 (0.82%) users never visit in library. Hence, the data clearly show that most of users daily visit in library.

In AMU, 124(79.48%) users daily visit in library, 16 (10.25%) users visit in library twice in a week, 10(6.41%) users weekly visit in library, 6(3.84%) users occasionally visit in library.

In BBAU, 71(51.44%) users daily visit in library, 29(21.01%) users visit in library twice in a week, 25(18.11%) users weekly visit in library, 13(9.42%) users occasionally visit in library and 4(2.39) users never visit in library.

In BHU, 102(61.07%) users daily visit in library, 31(18.56%) users visit in library twice in a week, 16 (9.58%) users weekly visit in library, 14(8.38%) users occasionally visit in library and 4(2.39%) users never visit in library.

In UOA, 84 (59.15%) users daily visit in library, 31(21.83%) users visit in library twice in a week, 12(8.45%) users weekly visit in library, 14(9.85%) users occasionally visit in library and 1(0.70%) users never visit in library.

5.4 Reasons to visit the library

The outcomes explore the reasons to visit in library by users.

Table.5.4 Reasons to visit the library

S. N.	Purpose	AMU	BBAU	BHU	UOA	TOTAL	%
1	For the Study	120(68.18%)	102(68.45%)	142(71.35%)	124(82.11%)	488	78.33%
2	For the Research	24(13.63%)	30(20.13%)	27(13.56%)	15(9.93%)	76	12.19%
3	For the Examination	19(9.54%)	16(10.73%)	18(9.04%)	7(4.63%)	43	6.90%
4	For the Assignment	13(6.53%)	11(7.38%)	12(6.03%)	5(3.31%)	26	4.17%
5	Total	176	149	199	151	623	100%
Chi-Square Calculated Value (X2) =15.08, **Degree of freedom = 9.0** **and p value = 0.888 (≥ 0.05 non-significant)** **Chi-square Critical Value (Tabulated Value) = 16.91**							

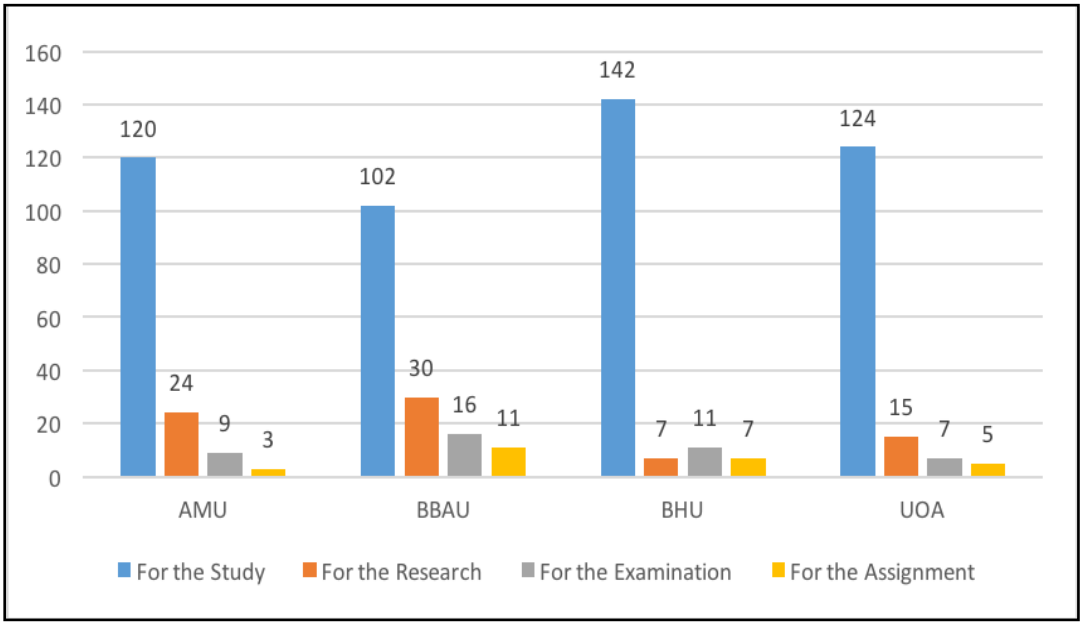

Fig.5.4 Reasons to visit the library

The aforesaid table 5.4 and fig 5.4 shows the reason to visit in library by users. The study shows that 488 (78.33%) users visit in library for study purpose, 76 (12.19%) users visit in library for the research purpose, 43 (6.90 %) users visit in library for the examination purpose, 26 (4.17 %) users visit in library for the assignment.

In AMU, 120 (68.18%)users visit in library for study purpose, 24 (13.63%)users visit in library for the research purpose, 19(9.54%) users visit in library for the examination purpose, 5(3.31%) users visit in library for the assignment.

In BBAU, 102 (68.45%) users visit in library for study purpose, 30(20.13%) users visit in library for the research purpose, 16(10.73%) users visit in library for the examination purpose, 11(7.38%) users visit in library for the assignment.

In BHU, 142 (71.35%) users visit in library for study purpose, 27 (13.56%) users visit in library for the research purpose, 18(9.04%) users visit in library for the examination purpose, 12(6.03%) users visit in library for the assignment.

In UOA, 124(82.11%) users visit in library for study purpose, 15 (9.93%) users visit in library for the research purpose, 7(4.63%) users visit in library for the examination purpose, 5 (3.31%) users visit in library for the assignment.

5.5 Awareness about the OPAC

In recent time popularity of online public access catalogue continues to grow, so people got information about OPAC itself by internet and some other sources such as library staff, friends, relatives etc.

Table.5.5 Awareness about the OPAC

S. N.	Aware	AMU	BBAU	BHU	UOA	TOTAL	%
1	Yes	133(82.25%)	97(70.28%)	121(72.45%)	56(39.43%)	407	67.49%
2	No	23(14.74%)	41(29.71%)	46(27.54%)	86(60.56%)	196	32.50%

3	total	156	138	167	142	603	100%

Chi-Square Calculated Value (X2) =75.75,

Degree of freedom = 3.0

and p value = 2.50E-16 (≤ 0.05 significant)

Chi-square Critical Value (Tabulated Value) = 7.814

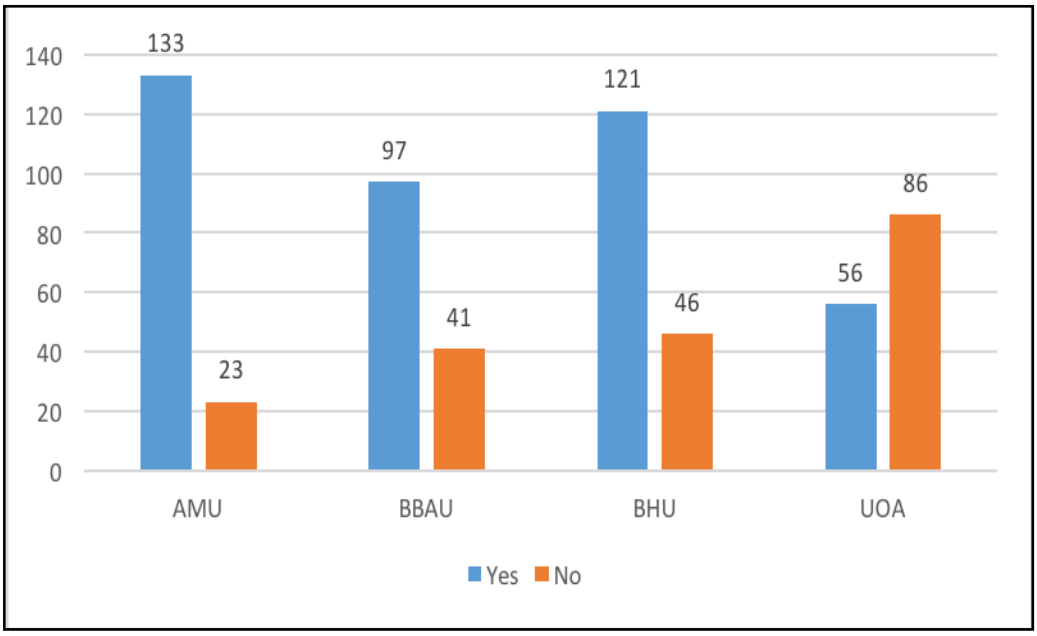

Fig. 5.5 Awareness about the OPAC

The aforesaid table 5.5 and fig.5.5 presents a brief overview of basic information about awareness of OPAC. The results of the analysis revealed those respondents who were aware of OPAC, whose number was 407 (67.49%) and some such respondents were not aware of OPAC, whose number was 407 (67.49%)**.**

In AMU, those respondents who were aware of OPAC, whose number was 133(82.25%) and some such respondents were not aware of OPAC, whose number was 23(14.74%).

In BBAU, those respondents who were aware of OPAC, whose number was 97 (70.28%) and some such respondents were not aware of OPAC, whose number was 41(29.71%).

In BHU, those respondents who were aware of OPAC, whose number was 121(72.45%) and some such respondents were not aware of OPAC, whose number was 46(27.54%).

In UOA, those respondents who were aware of OPAC, whose number was 56 (39.43%) and some such respondents were not aware of OPAC, whose number was 86 (60.56%).

5.5.1 Frequency of OPAC Use

It is important to know how frequently the users use OPAC to locate their required documents. The frequency of using OPAC indicates its value in the library.

Table.5.5.1 Frequency of OPAC Use

S. N.	Frequency	AMU	BBAU	BHU	UOA	TOTAL	%
1	Very Frequently	16 (12.03%)	14 (14.43%)	19(15.70%)	14 (25%)	63	15.47%
2	Frequently	34 (25.56%)	40 (41.23%)	51(42.14%)	22 (39.28%)	147	36.11%
3	Occasionally	71 (53.38%)	34 (35.05%)	45(37.19%)	16 (28.57%)	166	40.87%
4	Never	12 (9.02%)	9 (9.27%)	6(4.95%)	4 (7.14%)	31	7.61%
5	Total	133	97	121	56	407	100%

Chi-Square Calculated Value (X2) =20.78,

Degree of freedom = 9.0

and p value = 0.0137 (≤ 0.05 significant)

Chi-square Critical Value (Tabulated Value) = 16.91

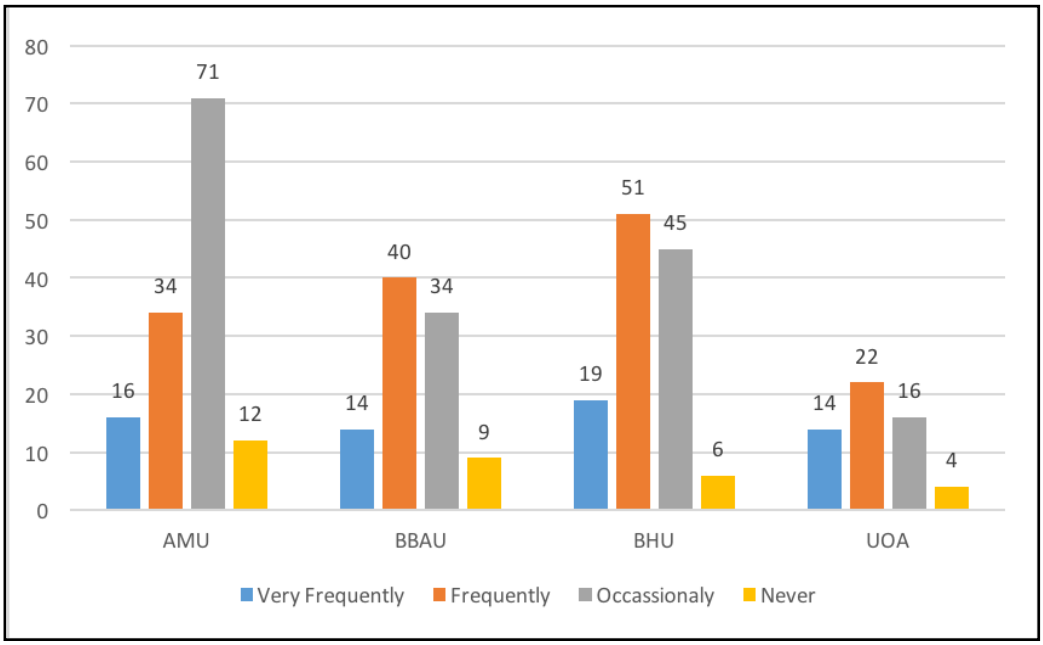

Fig. 5.5.1 Frequency of OPAC Use

The aforesaid table 5.5.1 and fig. 5.5.1 showed that 63 (15.47%) of the respondents were using OPAC very frequently, 147 (36.11%) of the respondents used it frequently. 166 (40.87%) used it, occasionally and 31 (7.61%) respondents never used it.

In AMU, 16 (12.03%) of the respondents were using OPAC very frequently, 51(42.14%) of the respondents used it frequently, 71 (53.38%) used it, occasionally and 12 (9.02%) respondents never used it.

In BBAU, 14 (14.43%) of the respondents were using OPAC very frequently, 40 (41.23%) of the respondents used it frequently, 34 (35.05%) used it, occasionally and 9 (9.27%) respondents never used it.

In BHU, 19 (15.70%) of the respondents were using OPAC very frequently, 34 (25.56%) of the respondents used it frequently, 45 (37.19%) used it, occasionally and 6 (4.95%) respondents never used it.

In UOA, 14 (25%) of the respondents were using OPAC very frequently, 22 (39.28%) of the respondents used it frequently, 16 (28.57%) used it, occasionally and 4 (7.14%) respondents never used it.

5.5.2 Reasons for not using OPAC

The study also investigated the reasons for not using the OPAC services by the respondents. From the analysis these respondents were asked to give the reasons/problems for not using OPAC.

Table.5.5.2 Reasons for not using OPAC

S. N.	Reasons	AMU	BBAU	BHU	UOA	TOTAL	%
1	Lack of computer Knowledge	9(39.13%)	7(17.07%)	10(21.73%)	17(19.76%)	43	21.93%
2	Lack of OPAC awareness	14(60.86%)	28(68.29%)	32(69.56%)	66(76.74%)	140	71.42%
3	Lack of assistance by the library staff	0	2(4.87%)	4(8.69%)	0	6	3.06%
4	Lack of Computer System	0	4(9.75%)	0	3(3.48%)	7	3.57%
5	Total	23	41	46	86	196	100%
Chi-Square Calculated Value (X2) =19.91, **Degree of freedom = 9.0** **and p value = 0.0185 (≤ 0.05 significant)** **Chi-square Critical Value (Tabulated Value) = 16.91**							

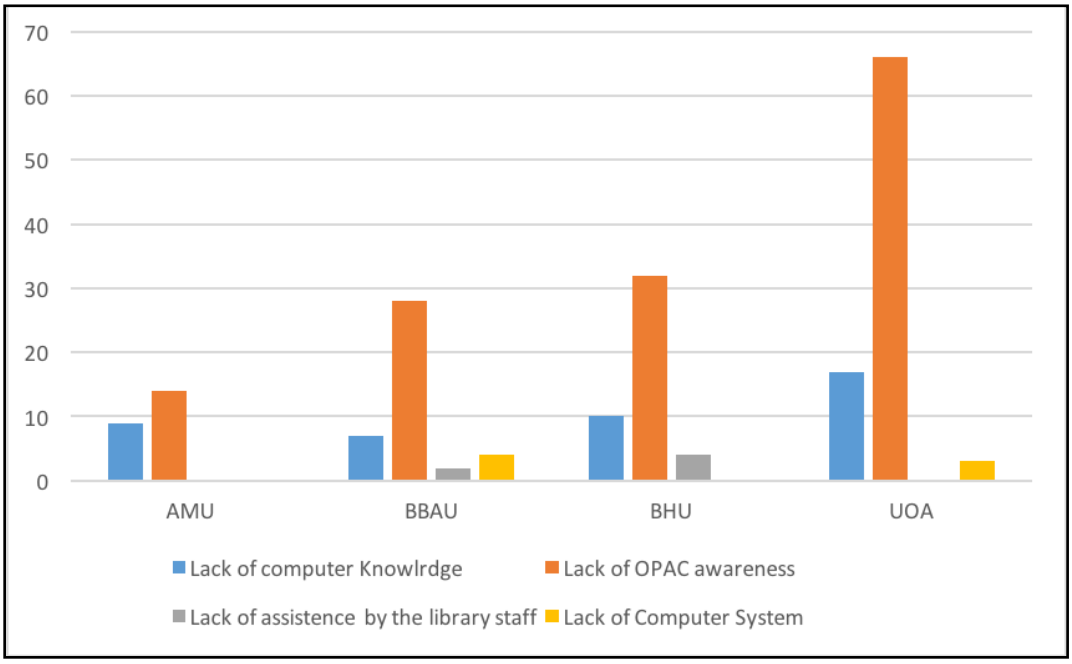

Fig.5.5.2 Reasons for not using OPAC

The aforesaid table 5.5.2 and fig. 5.5.2 shows that 43 (21.93%) of respondents expressed 'Lack of computer knowledge, 140 (71.42%) expressed ‘Lack of OPAC awareness’, 6 (3.06%) expressed ‘Lack of assistance by the library staff’, 7 (3.57 %) expressed Lack of Computer System'.

In AMU, 9 (39.13%) of respondents expressed 'Lack of computer knowledge, 14 (60.86%) expressed ‘Lack of OPAC awareness’, 6 (3.06%) expressed ‘Lack of assistance by the library staff’, 7 (3.57 %) expressed Lack of Computer System'

In BBAU, 43 (21.93%) of respondents expressed 'Lack of computer knowledge, 140 (71.42%) expressed ‘Lack of OPAC awareness’, 6 (3.06%) expressed ‘Lack of assistance by the library staff’, 7 (3.57 %) expressed Lack of Computer System'

In BHU, 10 (21.73%) of respondents expressed 'Lack of computer knowledge, 32 (69.56%) expressed ‘Lack of OPAC awareness’, 4(8.69%)expressed ‘Lack of assistance by the library staff’, 0 (0 %) expressed Lack of Computer System'.

In UOA, 43 (21.93%) of respondents expressed 'Lack of computer knowledge, 140 (71.42%) expressed ‘Lack of OPAC awareness’, 6 (3.06%) expressed ‘Lack of assistance by the library staff’, 7 (3.57 %) expressed Lack of Computer System'

5.6 Knowledge about OPAC

In recent time popularity of OPAC continues to grow, so respondents got information about OPAC itself by internet and some other sources such as library staff, friends, relatives, library awareness programs etc.

Table.5.6 Knowledge about OPAC

S.N.	Awareness	AMU	BBAU	BHU	UOA	TOTAL	%
1	By your self	70 (52.63%)	41 (42.26%)	48 (39.66%)	23 (41.07%)	182	44.71%
2	From library staff	19 (14.28%)	23 (23.71%)	17(14.04%)	4 (7.14%)	63	15.49%
3	From friends/colleagues	36 (27.06%)	25 (25.77%)	45(37.19%)	23 (41.07%)	129	31.69%
4	Through Library Awareness programs	8 (6.01%)	8 (8.24%)	11(9.09%)	6 (10.71%)	33	8.10%
5	Total	133	97	121	56	407	100%

Chi-Square Calculated Value (X2) =15.90,

Degree of freedom = 9.0

and p value = 0.0689 (≥ 0.05 non-significant)

Chi-square Critical Value (Tabulated Value) = 16.91

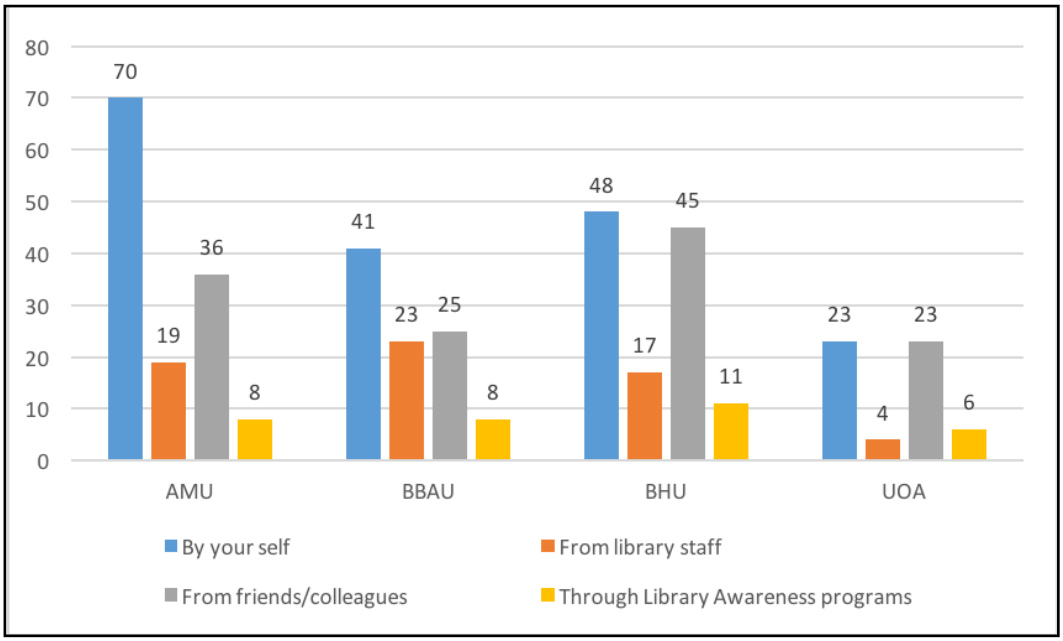

Fig.5.6 Knowledge about OPAC

The aforesaid table 5.6 and fig.5.6 presents a brief overview of basic information respondent that how, they know about OPAC. The results of the analysis revealed that 182 (44.71%) respondents know about OPAC by yourself, 63 (15.49%) respondents know about OPAC through library staff, 129 (31.69%) respondents know about OPAC by friends/ Colleagues and 33 (8.10%) respondents know about it through a library awareness program.

In AMU, 70 (52.63%) respondents know about OPAC by yourself,19 (14.28%) respondent know about OPAC through library staff, 36 (27.06%) respondents know about OPAC by friends/ Colleagues and 8 (6.01%) respondents know about it through a library awareness program.

In BBAU, 41(42.26%) respondents know about OPAC by yourself, 23 (23.71%) respondent know about OPAC through library staff, 25 (25.77%) respondents know about OPAC by friends/ Colleagues and 8 (8.24%) respondents know about it through a library awareness program.

In BHU, 48 (39.66%) respondents know about OPAC by yourself, 17(14.04%) respondent know about OPAC through library staff, 45(37.19%) respondents know about OPAC by friends/ Colleagues and 11(9.09%) respondents know about it through a library awareness program.

In UOA, 23(41.07%) respondents know about OPAC by yourself, 4 (7.14%) respondent know about OPAC through library staff, 23 (41.07%) respondents know about OPAC by friends/ Colleagues and 6 (10.71%) respondents know about it through a library awareness program.

5.7. Purposes of using OPAC

In OPAC, data from all the bibliographies related to a library is available, or we can say that OPAC is a gateway to know the data stored in the library. The OPAC catalog is the advance and flexible form, and the use of the OPAC catalog has increased in the present time. Usually the information of any remarkable data within the computer can be easily obtained by the OPAC catalog.

This research work explore that 190 (38.69%) respondents uses the OPAC to know the documents availability, 61(12.42%) respondents use it to collect information related to bibliographical details, 87 (17.71%) respondents use it to reserve the books, 131(26.68%) respondent uses OPEC to check the location of documents and 32 (6.51%) respondent uses OPAC to check the number of copies of any document.

Table.5.7. Purposes of using OPAC

S. N.	Purposes	AMU	BBAU	BHU	UOA	TOTAL	%
1	To check documents Availability	41(28.47%)	58(42.33%)	63(47.72%)	28(35.89%)	190	38.69%
2	To find Bibliographical Detail	18(12.5%)	19(13.86%)	13(9.84%)	11(14.10%)	61	12.42%
3	To Reserve the books	25(17.36%)	19(13.86%)	24(18.18%)	19(24.35%)	87	17.71%
4	To Check location of documents	58(40.27%)	33(24.08%)	23(17.42%)	17(21.79%)	131	26.68%
5	To Check number copies of Any Document	12(8.33%)	8(5.83%)	9(6.81%)	3(3.84%)	32	6.51%
6	Total	144	137	132	78	491	100%

Chi-Square Calculated Value (X2) =27.63,

Degree of freedom = 12.0

and p value = 0.0063 (≥ 0.05 non-significant)

Chi-square Critical Value (Tabulated Value) = 21.02

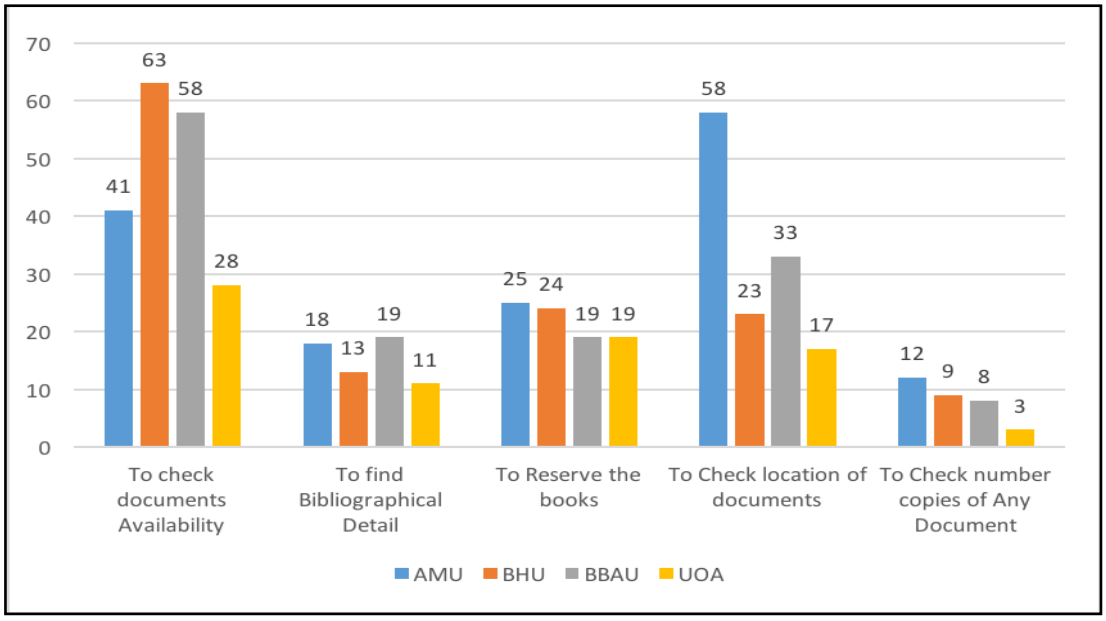

Fig.5.7. Purposes of using OPAC

In AMU, 41(28.47%) respondents uses the OPAC to know the documents availability, 18 (12.5%) respondents use it to collect information related to bibliographical details, 25(17.36%) respondents use it to reserve the books, 58(40.27%) respondent uses OPEC to check the location of documents and 12(8.33%) respondent uses OPAC to check the number of copies of any document.

In BBAU, 58 (42.33%) respondents uses the OPAC to know the documents availability, 19 (13.86%) respondents use it to collect information related to bibliographical details, 19(13.86%) respondents use it to reserve the books, 33(24.08%) respondent uses OPEC to check the location of documents and 8(5.83%) respondent uses OPAC to check the number of copies of any document.

In BHU, 63 (47.72%) respondents uses the OPAC to know the documents availability, 13(9.84%) respondents use it to collect information related to bibliographical details, 24(18.18%) respondents use it to reserve the books, 23(17.42%) respondent uses OPEC to check the location of documents and 9(6.81%) respondent uses OPAC to check the number of copies of any document.

In UOA, 28 (35.89%) respondents uses the OPAC to know the documents availability, 11(14.10%) respondents use it to collect information related to bibliographical details, 19 (24.35%) respondents use it to reserve the books, 17 (21.79%) respondent uses OPEC to check the location of documents and 3(3.84%) respondent uses OPAC to check the number of copies of any document.

5.8. Places of using OPAC

This study also depicts information about the places used by respondents for the use of OPAC**.** 314(61.08%) respondents use OPAC in library, 84 (16.34%) respondents use OPAC in department, 49 (9.53%) respondents use OPAC in home and 67 (13.03%) respondents use OPAC in Hostel.

Table.5.8. Places of using OPAC

S. N.	Places	AMU	BBAU	BHU	UOA	TOTAL	%
1	Library	112(72.25%)	63(50.4%)	105(66.45%)	34(44.74%)	314	61.08%
2	Department	18(11.61%)	24(19.2%)	25(15.82%)	17(22.36%)	84	16.34%
3	Home	13(8.38%)	13(10.4%)	13(8.22%)	10(13.15%)	49	9.53%
4	Hostel	12(7.74%)	25(20%)	15(9.49%)	15(19.73%)	67	13.03%
5	Total	155	125	158	76	514	100%

Chi-Square Calculated Value (X2) =27.80,

Degree of freedom = 9.0

and p value = 0.0010 (≥ 0.05 non-significant)

Chi-square Critical Value (Tabulated Value) = 16.91

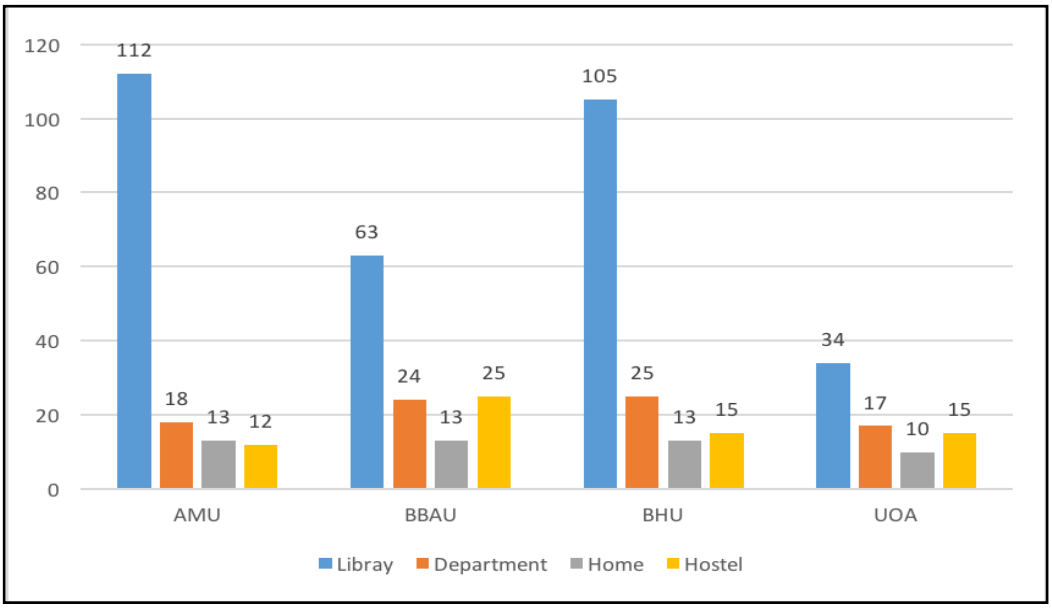

Fig.5.8. Places of using OPAC

In AMU, 112 (72.25%) respondents use OPAC in library, 18 (11.61%) respondents use OPAC in department, 49 (9.53%) respondents use OPAC in home and 12 (7.74%) respondents use OPAC in Hostel.

IN BBAU, 63(50.4%) respondents use OPAC in library, 24(19.2%) respondents use OPAC in department, 13(10.4%) respondents use OPAC in home and 25(20%) respondents use OPAC in Hostel.

In BHU, 105 (66.45%) respondents use OPAC in library, 25 (15.82%) respondents use OPAC in department, 13 (8.22%) respondents use OPAC in home and 15 (9.49%) respondents use OPAC in Hostel.

IN UOA, 34 (44.74%) respondents use OPAC in library, 17 (22.36%) respondents use OPAC in department, 10 (13.15%) respondents use OPAC in home and 15(19.73%) respondents use OPAC in Hostel.

5.9. Assistance required from the library staff

Sometimes users have to face difficulties in using OPAC, due to which the user has to get help from library staff. This study revealed information about to get the help from library staff. 52 (12.77%) respondents always need help from the library staff, 64 (15.72%) respondents usually require assistance from library staff, 92 (22.60%) respondents are occasionally need help from the library staff, 113 (27.76%) respondents rarely require help from library staff and 88 (21.62%) respondents never need to help from library staff in use of OPAC.

Table.5.9. Assistance required from the library staff

S. N.	Assistance required	AMU	BBAU	BHU	UOA	TOTAL	%
1	Always	6(4.51%)	14(14.43%)	16(13.22%)	16(28.57%)	52	12.77%
2	Usually	15(11.27%)	22(22.68%)	21(17.35%)	6(10.71%)	64	15.72%
3	Occasionally	34(25.56%)	19(19.58%)	30(24.79%)	9(16.07%)	92	22.60%
4	Rarely	31(23.30%)	30(30.92%)	35(28.92%)	17(30.35%)	113	27.76%

5	Never	47(35.33%)	12(12.37%)	19(15.70%)	10(17.85%)	88	21.62%
6	Total	133	97	121	56	407	100%

Chi-Square Calculated Value (X2) =45.18,

Degree of freedom = 12.0

and p value = 9.58E-06 (≤.05 significant)

Chi-square Critical Value (Tabulated Value) = 21.02

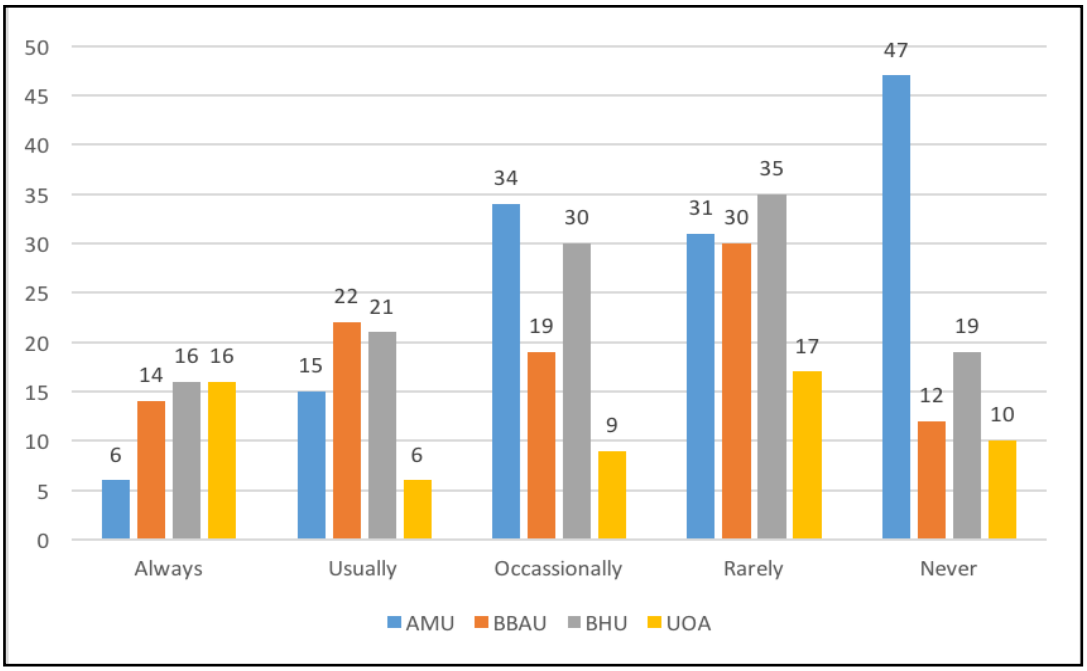

Fig.5.9. Assistance required from the library staff

In AMU, 6 (4.51%) respondents always need help from the library staff, 15 (11.27%) respondents usually require assistance from library staff, 34 (25.56%) respondents are occasionally need help from the library staff, 31(23.30%) respondents rarely require help from library staff and 47 (35.33%) respondents never need to help from library staff in use of OPAC.

In BBAU, 14 (14.43%) respondents always need help from the library staff, 22 (22.68%) respondents usually require assistance from library staff, 19(19.58%) respondents are occasionally need help from the library staff, 30 (30.92%) respondents rarely require help from library staff and 12 (12.37%) respondents never need to help from library staff in use of OPAC.

In BHU, 16 (13.22%) respondents always need help from the library staff, 21 (17.35%) respondents usually require assistance from library staff, 30 (24.79%) respondents are occasionally need help from the library staff, 35 (28.92%) respondents rarely require help from library staff and 19 (15.70%) respondents never need to help from library staff in use of OPAC.

In UOA, 16 (28.57%) respondents always need help from the library staff, 6 (10.71%) respondents usually require assistance from library staff, 9 (16.07%) respondents are occasionally need help from the library staff, 17 (30.35%) respondents rarely require help from library staff and 10 (17.85%) respondents never need to help from library staff in use of OPAC.

5.10. Tools Available near OPAC

Guidelines are provided by the library for the use of OPAC. Some instructions are also available on desktop and library website for the use of OPAC.

Table.5.10. Tools Available near OPAC

S. N.	Tools	AMU	BBAU	BHU	UOA	TOTAL	%
1	Guidelines for using OPAC	36 (27.06%)	38 (39.17%)	67 (55.37%)	27 (48.21%)	168	41.27 %
2	Instructions Available in the Desktop	69 (51.87%)	25 (25.77%)	32 (26.44%)	11 (19.64%)	137	33.66 %
3	Instructions Available on Library Website	28 (21.05%)	34 (35.05%)	22 (18.18%)	18 (32.14%)	102	25.06 %
4	Total	133	97	121	56	407	100.00 %
Chi-Square Calculated Value (X2) =41.26, **Degree of freedom = 12.0** **and p value = 9.58E-07 (≤ 0.05 significant)** **Chi-square Critical Value (Tabulated Value) = 12.59**							

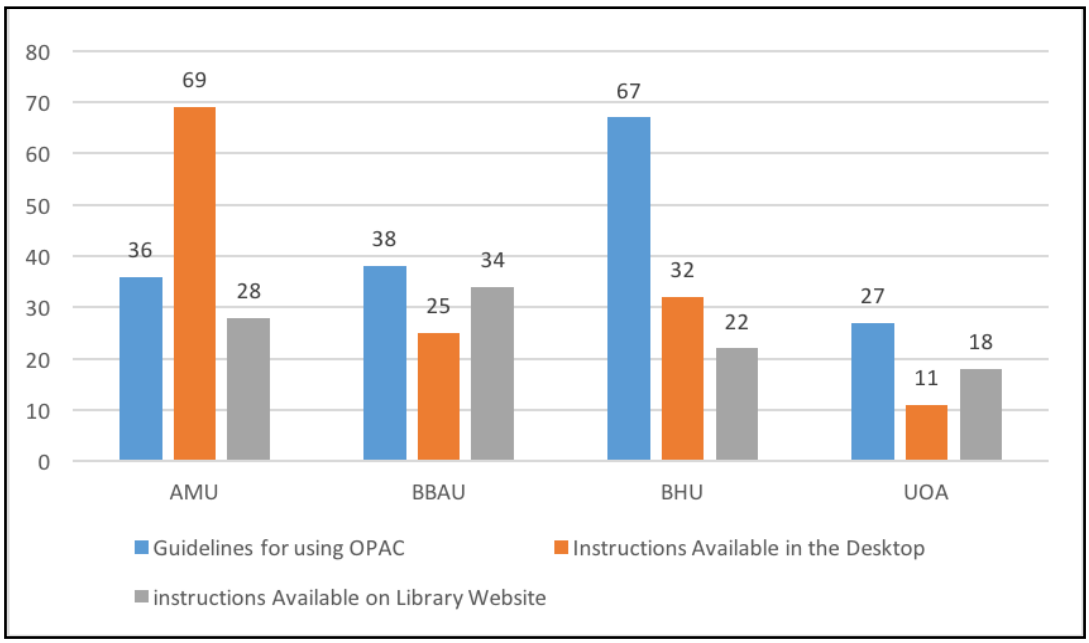

Fig.5.10. Tools Available near OPAC

The aforesaid table.5.10 and fig.5.10 shows that 168 (41.27%) respondents take help from guidelines for using OPAC, 137 (33.66%) respondents use instructions available in the desktop for OPAC and 102 (25.06%) respondents use the instructions available on the Library website for OPAC.

In AMU, 36 (27.06%) respondents take help from guidelines for using OPAC, 69 (51.87%) respondents use instructions available in the desktop for OPAC and 28 (21.05%) respondents use the instructions available on the Library website for OPAC.

In BBAU, 38 (39.17%) respondents take help from guidelines for using OPAC, 25 (25.77%) respondents use instructions available in the desktop for OPAC and 34 (35.05%) respondents use the instructions available on the Library website for OPAC.

In BHU, 67 (55.37%) respondents take help from guidelines for using OPAC, 32 (26.44%) respondents use instructions available in the desktop for OPAC and 22 (18.18%) respondents use the instructions available on the Library website for OPAC.

In UOA, 27 (48.21%) respondents take help from guidelines for using OPAC, 11 (19.64%) respondents use instructions available in the desktop for OPAC and 18(32.14%) respondents use the instructions available on the Library website for OPAC.

5.11. Types of Search performed by Users

The OPAC system provides respondents with various types of searches to find documents that they can easily access to information related to documents. Respondents often use simple and advance search to find documents. 288 (70.76%) respondents who uses simple type of search and 119 (29.23%) respondents uses advance search to find the documents.

Table.5.11. Types of Search performed by Users

S. N.	Search Type	AMU	BBAU	BHU	UOA	TOTAL	%
1	Simple Search	92 (69.17%)	62 (63.91%)	95 (78.51%)	39 (69.64%)	288	70.76 %
2	Advanced Search	41 (30.82%)	35 (36.08%)	26 (21.48%)	17 (30.35%)	119	29.23 %
3	Total	133	97	121	56	407	100.00 %

Chi-Square Calculated Value (X2) =5.91,
Degree of freedom = 3.0
and p value = 0.1163 (≥ 0.05 non-significant)
Chi-square Critical Value (Tabulated Value) = 7.814

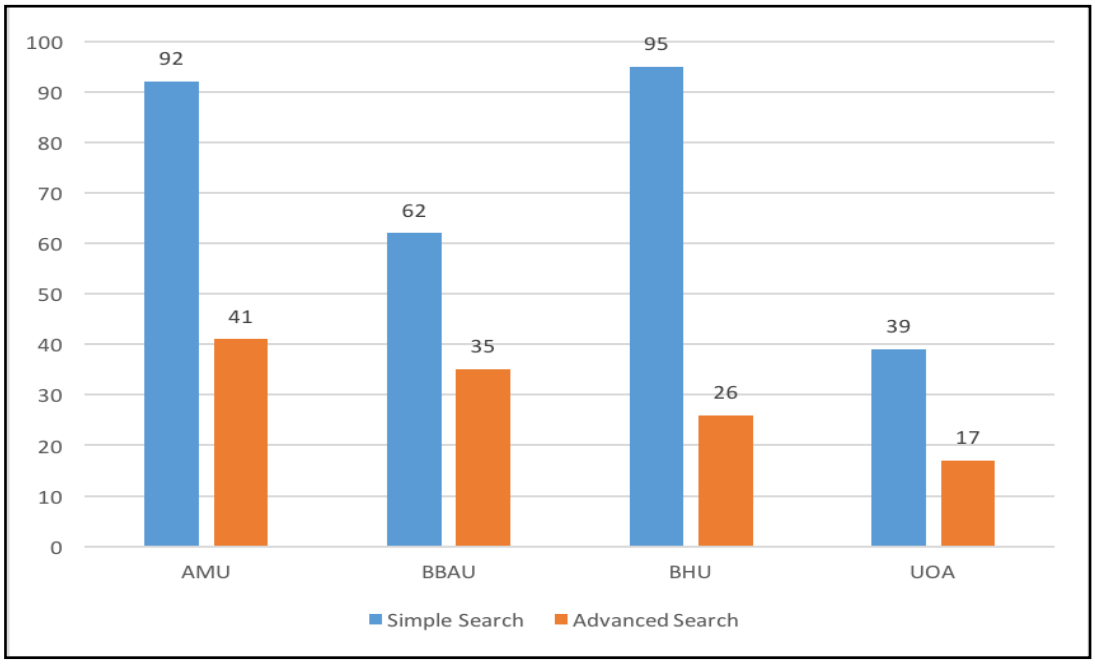

Fig.5.11. Types of Search performed by Users

In AMU, 92 (69.17%) respondents who uses simple type of search 41(30.82%) respondents uses advance search to find the documents.

In BBAU, 62 (63.91%) respondents who uses simple type of search and 35(36.08%) respondents uses advance search to find the documents.

In BHU, 95 (78.51%) respondents who uses simple type of search 26 (21.48%) respondents uses advance search to find the documents.

In UOA, 39 (69.64%) respondents who uses simple type of search 17 (30.35%) respondents uses advance search to find the documents.

5.12 Searching Options used by Users

In OPAC, required document can be searched by different searching options these are title search, keyword search, author search, call no. search, subject search, ISBN search and Publisher name & year search.

Table.5.12 Searching Options used by Users

S. N.	Searching Options	AMU	BBAU	BHU	UOA	TOTAL	%
1	By Title Search	70(36.08%)	59(38.06%)	53(30.11%)	27(32.92%)	209	34.43%
2	By Keyword Search	21(10.82%)	23(14.83%)	24(13.63%)	17(20.73%)	85	14.00%
3	By Author Search	60(30.92%)	32(20.64%)	42(23.86%)	21(25.60%)	155	25.53%
4	By Call No. Search	2(1.03%)	5(3.22%)	8(4.54%)	2(2.43%)	17	2.80%
5	By Subject Search	32(16.49%)	24(15.48%)	37(21.02%)	28(34.14%)	121	19.93%
6	By ISBN Search	5(2.57%)	9(5.80%)	5(2.84%)	2(2.43%)	21	3.45%

7	By Publisher Name and Year Search	4(2.06%)	3(1.93%)	7(3.97%)	1(1.21%)	15	2.47%
8	Total	194	155	176	82	607	100.00%

Chi-Square Calculated Value (X2) =27.39,

Degree of freedom = 18.0

and p value = 0.0720 (≥ 0.05 non-significant)

Chi-square Critical Value (Tabulated Value) = 28.86

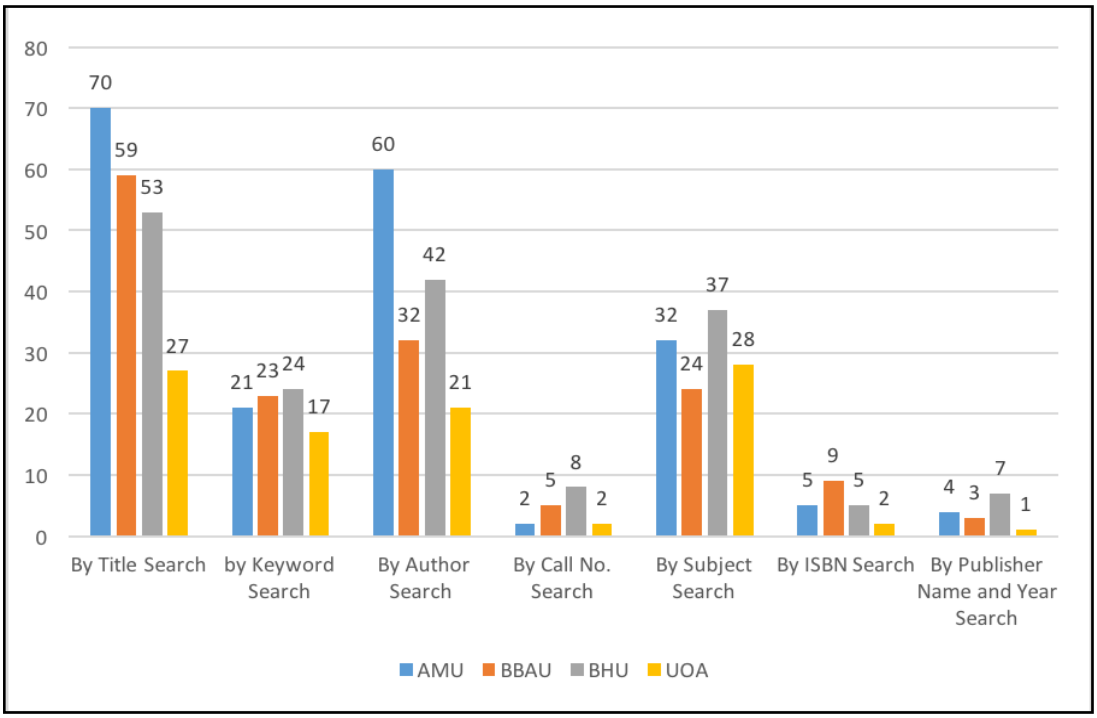

Fig.5.12 Searching Options used by Users

The above table 5.12 and fig. 5.12 shows that, 209 (34.43 %) of the respondents used OPAC search by title, 85 (14.00%) search by keywords, 155 (25.53%) through the author search, 17 (2.80%) respondents search by call no., 121 (19.93%) respondent uses subject search, 21 (3.45%) respondents uses ISBN for search and 15 (2.47%) of respondents approached through the Publisher Name and Year Search respectively to find out the information.

In AMU, 70 (36.08%) of the respondents used OPAC search by title, 21 (10.82%) search by keywords, 60 (30.92%) through the author search, 2 (1.03%) respondents search by call no., 32 (16.49%) respondent uses subject search, 5(2.57%) respondents uses ISBN for search and 4 (2.06%) of respondents approached through the Publisher Name and Year Search respectively to find out the information.

In BBAU, 59 (38.06%) of the respondents used OPAC search by title, 23 (14.83%) search by keywords, 32 (20.64%) through the author search, 5 (3.22%) respondents search by call no., 24(15.48%) respondent uses subject search, 9 (5.80%) respondents uses ISBN for search and 3 (1.93%) of respondents approached through the Publisher Name and Year Search respectively to find out the information.

In BHU, 53 (30.11%) of the respondents used OPAC search by title, 24 (13.63%) search by keywords, 42 (23.86%) through the author search, 8 (4.54%) respondents search by call no., 37 (21.02%) respondent uses subject search, 5 (2.84%) respondents uses ISBN for search and 7(3.97%) of respondents approached through the Publisher Name and Year Search respectively to find out the information.

In AU, 27(32.92%) of the respondents used OPAC search by title, 17(20.73%) search by keywords, 21(25.60%) through the author search, 2 (2.43%) respondents search by call no., 28 (34.14%) respondent uses subject search, 2 (2.43%) respondents uses ISBN for search and 1 (1.21%) of respondents approached through the Publisher Name and Year Search respectively to find out the information.

5.13. Information Searched by the Users

OPAC is mostly used by students, academic staff and library staff for search of books, reference Books, thesis/dissertation, journals/ publication/articles and others documents in library collection. This study explores the details related to search in library collection.

Table.5.13 Information Searched by the Users

S.N.	Items	AMU	BBAU	BHU	UOA	TOTAL	%
1	Books	78(50.32%)	65(48.87%)	76(50.33%)	37(46.83%)	256	49.42%
2	Reference	47(30.32%)	29(21.80%)	34(22.51%)	18(22.78%)	128	24.71%

	Books						
3	Thesis/ Dissertation	10(6.45%)	17(12.78%)	11(7.28%)	8(10.12%)	46	8.88%
4	Journals	14(9.03%)	17(12.78%)	25(16.55%)	12(15.18%)	68	13.12%
5	Others	6(3.87%)	5(3.75%)	5(3.31%)	4(5.06%)	20	3.86%
6	Total	155	133	151	79	518	100.00%
Chi-Square Calculated Value (X2) =10.91, **Degree of freedom = 12.0** **and p value = 0.536 (≥ 0.05 non-significant)** **Chi-square Critical Value (Tabulated Value) = 21.02**							

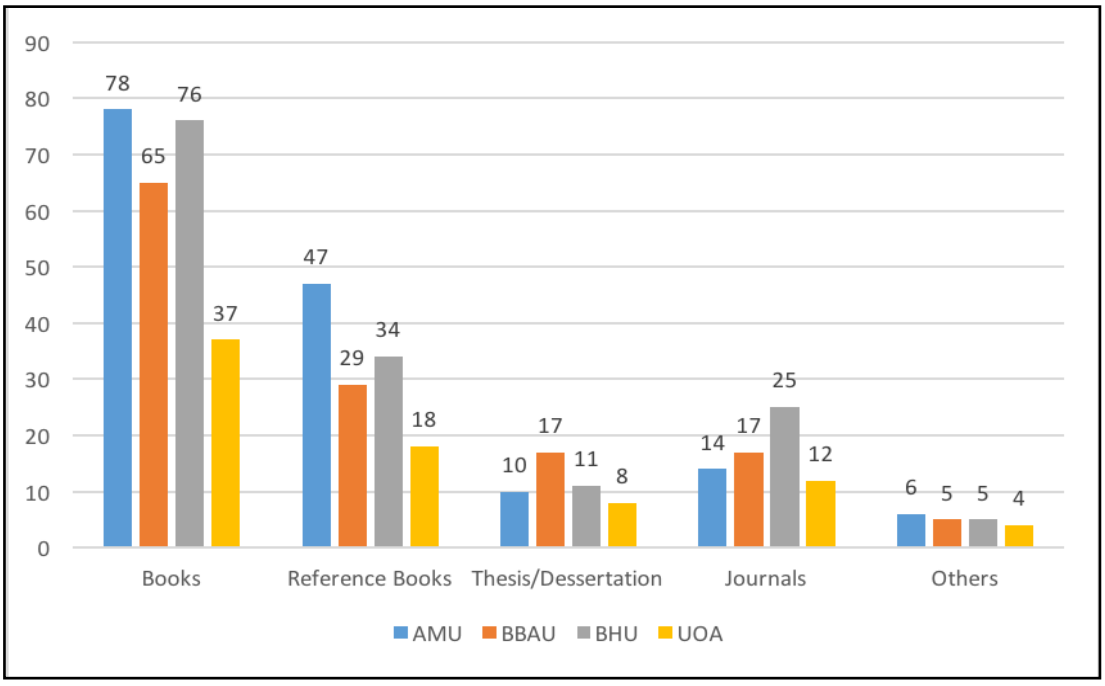

Fig.5.13 Information Searched by the Users

Table.5.13 and fig. 5.13 depicts that 256 (49.42%) users were search books in library collection, 128 (24.71%) users were search reference books in library collection, 46 (8.88%) users were search thesis/dissertation in library collection, 68 (13.12%) users were search thesis/dissertation in library collection and only 20 (3.86%) users were search for other like articles, newsletters etc. in library collection.

In AMU, 78 (50.32%) users were search books in library collection, 47 (30.32%) users were search reference books in library collection, 10 (6.45%) users were search thesis/dissertation in library collection, 14 (9.03%) users were search thesis/dissertation in library collection and only 6 (3.87%) users were search for other like articles, newsletters etc. in library collection.

In BBAU, 65 (48.87%) users were search books in library collection, 29 (21.80%) users were search reference books in library collection, 17 (12.78%) users were search thesis/dissertation in library collection, 17 (12.78%) users were search thesis/dissertation in library collection and only 5 (3.75%) users were search for other like articles, newsletters etc. in library collection.

In BHU, 76 (50.33%) users were search books in library collection, 34 (22.51%) users were search reference books in library collection, 11 (7.28%) users were search thesis/dissertation in library collection, 25 (16.55%) users were search thesis/dissertation in library collection and only 5 (3.31%)users were search for other like articles, newsletters etc. in library collection.

In AU, 37 (46.83%) users were search books in library collection, 18 (22.78%) users were search reference books in library collection, 8 (10.12%) users were search thesis/dissertation in library collection, 12 (15.18%) users were search thesis/dissertation in library collection and only 4 (5.06%)users were search for other like articles, newsletters etc. in library collection.

5.14. Problems Faced by Users

Users faced many problems in searching documents with the use of OPAC service. The study also investigated the problems for not using the OPAC services by the respondents these problems explain in table. 5.14.

Table.5.14. Problems Faced by Users

S. N.	Problems	AMU	BBAU	BHU	UOA	TOTAL	%
1	Creates Confusion	44(30.76%)	15(14.85%)	38(26.95%)	8(12.12%)	105	23.28%
2	Lack of knowledge	32(22.37%)	31(30.69%)	45(31.91%)	23(34.84%)	131	29.04%

	of Searching Techniques						
3	Lack of speed of Accessibility	29(2027%)	34(33.66%)	33(23.40%)	16(24.24%)	112	24.83%
4	Lack of Bibliographical data on OPAC	14(9.79%)	16(15.84%)	12(8.51%)	4(6.06%)	46	10.19%
5	Language Problem	8(5.59%)	4(3.96%)	9(6.38%)	9(13.63%)	30	6.65%
6	Any Other Problem	15(10.48%)	1(0.99%)	4(2.83%)	6(9.09%)	26	5.76%
7	Total	143	101	141	66	451	100.00 %
Chi-Square Calculated Value (X2) =42.57, **Degree of freedom = 15.0** **and p value = 0.0002 (≤ 0.05 significant)** **Chi-square Critical Value (Tabulated Value) = 24.99**							

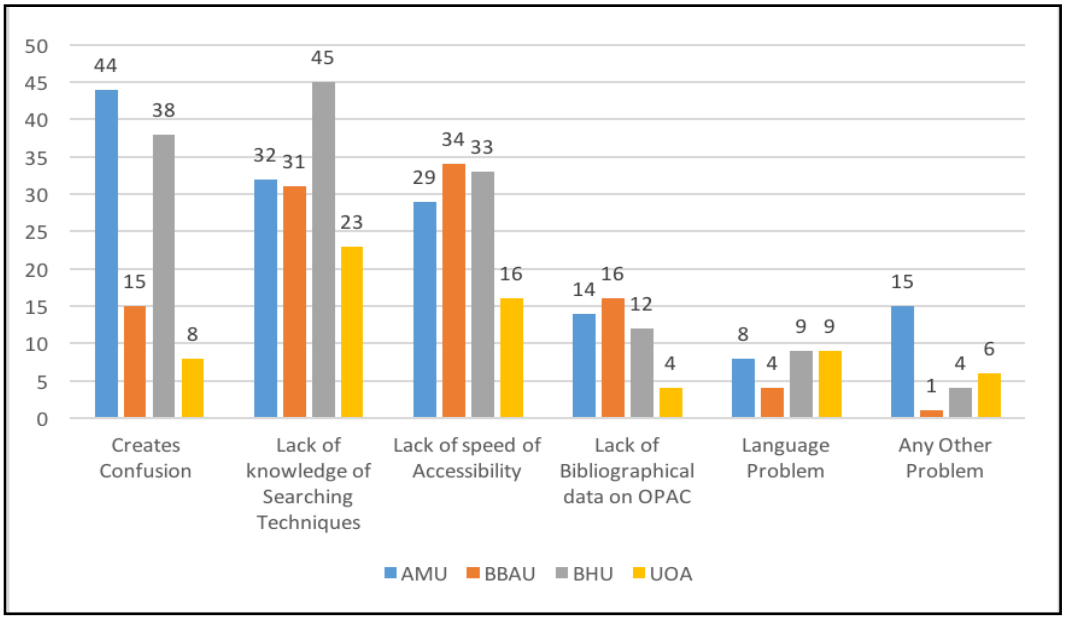

Fig.5.14. Problems Faced by User

The aforesaid table 5.14 and fig. 5.14 shows that 105 (23.28%) respondents expressed 'creates confusion', 131(29.04 %) respondents expressed 'lack of knowledge of searching techniques', 112 (24.83%) respondents expressed 'lack of speed of accessibility', 46 (10.19%) respondents expressed 'lack of bibliographical data on OPAC', 30 (6.65%) respondents expressed 'language problem', 26 (5.76%) respondents expressed 'any other problems'.

In AMU, 44 (30.76%) respondents expressed 'creates confusion', 32 (22.37%) respondents expressed 'lack of knowledge of searching techniques', 112 (24.83%) respondents expressed 'lack of speed of accessibility', 14 (9.79%) respondents expressed 'lack of bibliographical data on OPAC', 8 (5.59%) respondents expressed 'language problem', 15 (32.61 per cent) respondents expressed 'any other problems'.

In BBAU, 15 (14.85%) respondents expressed 'creates confusion', 31 (30.69%) respondents expressed 'lack of knowledge of searching techniques', 34 (33.66%) respondents expressed 'lack of speed of accessibility', 16 (15.84%) respondents expressed 'lack of bibliographical data on OPAC', 4 (3.96%) respondents expressed 'language problem', 1 (0.99%) respondents expressed 'any other problems'.

In BHU, 38 (26.95%) respondents expressed 'creates confusion', 45 (31.91%) respondents expressed 'lack of knowledge of searching techniques', 33 (23.40%) respondents expressed 'lack of speed of accessibility', 12 (8.51%) respondents expressed 'lack of bibliographical data on OPAC', 9 (6.38%) respondents expressed 'language problem', 4 (2.83%) respondents expressed 'any other problems'.

In UOA, 8 (12.12%) respondents expressed 'creates confusion', 23 (34.84%) respondents expressed 'lack of knowledge of searching techniques', 16 (24.24%) respondents expressed 'lack of speed of accessibility', 4 (6.06%) respondents expressed 'lack of bibliographical data on OPAC', 9 (13.63%) respondents expressed 'language problem', 6 (9.09%) respondents expressed 'any other problems'.

5.15. Response time of Display Result of OPAC

OPAC is used by user to find documents. OPAC takes a certain time in finding information related to any document that depends on the speed of its operation

and speed can be fast and slow. The study highlighted the responses of users for displaying results on OPAC.

Table.5.15. Response time of Display Result of OPAC

S. N.	Response time	AMU	BBAU	BHU	UOA	TOTAL	%
1	Very Fast	33(24.81%)	4(4.12%)	17(14.04%)	7(12.5%)	61	14.98%
2	Fast	70(52.63%)	62(63.91%)	70(57.85%)	26(46.42%)	228	56.01%
3	Slow	23(17.29%)	26(26.80%)	28(23.14%)	20(35.71%)	97	23.83%
4	Very Slow	5(3.75%)	3(3.09%)	2(1.65%)	2(3.57%)	12	2.94%
5	No Result Found	2(150%)	2(2.06%)	4(3.30%)	1(1.78%)	9	2.21%
6	Total	133	97	121	56	407	100.00%

Chi-Square Calculated Value (X2) =27.02,

Degree of freedom = 12.0

and p value = 0.0077 (≥ 0.05 non-significant)

Chi-square Critical Value (Tabulated Value) = 21.02

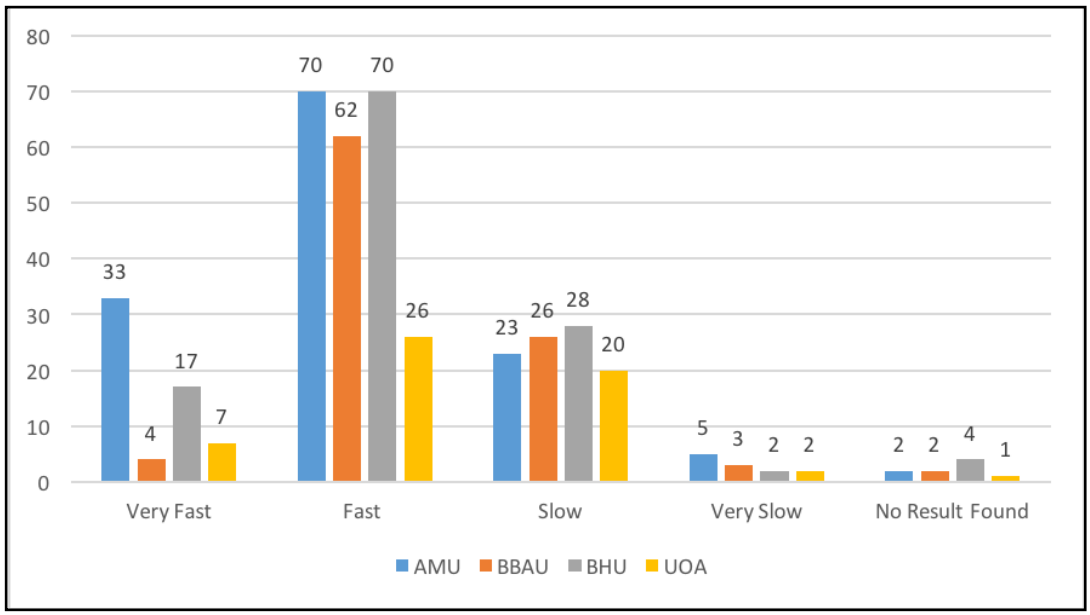

Fig.5.15. Response time of Display Result of OPAC

The aforesaid table 5.15 and fig. 5.15 shows that 61 (14.98%) users respond, OPAC is 'very fast', 228 (56.01%) users respond, OPAC is 'fast', 97 (23.83%) users respond, OPAC is 'slow', 12 (2.94%) users respond OPAC is 'very slow' and 9 (2.21%) users not answered about it or 'no result found'.

In AMU, 33 (24.81%) users respond, OPAC is 'very fast', 70 (52.63%) users respond, OPAC is 'fast', 23 (17.29%) users respond, OPAC is 'slow', 5 (3.75%) users respond OPAC is 'very slow' and 2 (150%) users not answered about it or 'no result found'.

In BBAU, 4 (4.12%) users respond, OPAC is 'very fast', 62 (63.91%) users respond, OPAC is 'fast', 26 (26.80%) users respond, OPAC is 'slow', 3(3.09%) users respond OPAC is 'very slow' and 2 (2.06%) users not answered about it or 'no result found'.

In BHU, 17 (14.04%) users respond, OPAC is 'very fast', 70 (57.85%) users respond, OPAC is 'fast', 28 (23.14%) users respond, OPAC is 'slow', 2 (1.65%) users respond OPAC is 'very slow' and 4 (3.30%) users not answered about it or 'no result found'.

In AU, 7 (12.5%) users respond, OPAC is 'very fast', 26 (46.42%) users respond, OPAC is 'fast', 20 (35.71%) users respond, OPAC is 'slow', 2 (3.57%) users respond OPAC is 'very slow' and 1(1.78%) users not answered about it or 'no result found'.

5.16. Availability of sufficient Terminals

Currently use of OPAC increasing the need of OPAC terminals availability in library. This study investigated the responses of users regarding the availability of OPAC terminals in library.

Table.5.16. Availability of sufficient Terminals

S. N.	Items	AMU	BBAU	BHU	UOA	TOTAL	%
1	**Strongly Agree**	35(26.31%)	8(8.24%)	15(12.39%)	7(12.5%)	65	15.97%

2	**Agree**	72(54.13%)	48(49.48%)	87(71.90%)	26(46.42%)	233	57.24%
3	**Disagree**	13(9.77%)	22(22.68%)	12(9.91%)	20(35.71%)	67	16.46%
4	**Strongly Disagree**	2(1.50%)	7(7.21%)	3(2.47%)	2(3.57%)	14	3.43%
5	**Neutral**	11(8.27%)	12(12.37%)	4(3.30%)	1(1.78%)	28	6.87%
6	**Total**	133	97	121	56	407	100.00%

Chi-Square Calculated Value (X2) =57.29,

Degree of freedom = 12.0

and p value = 7.01E-08 (≤ 0.05 significant)

Chi-square Critical Value (Tabulated Value) = 21.02

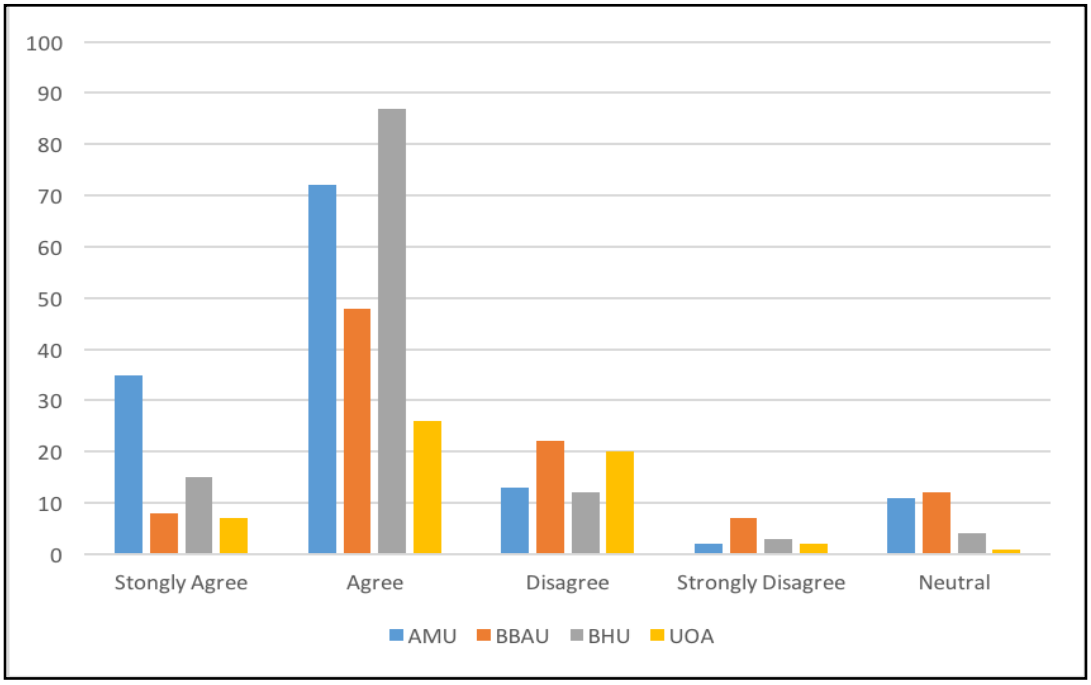

Fig.5.16. Availability of sufficient Terminals

The aforesaid table.5.16 and fig.5.16 shows that 65 (15.97%) users expressed 'strongly agree' about the availability of OPAC terminals in library , 233 (57.24%) users expressed 'agree', 67 (16.46%) expressed 'disagree', 14 (3.43%) expressed 'disagree' and 28 (6.87%) users expressed ' neutral' about the availability of OPAC terminals in library.

In AMU, 35 (26.31%) users expressed 'strongly agree' about the availability of OPAC terminals in library, 72 (54.13%) users expressed 'agree', 13 (9.77%) expressed 'disagree', 2 (1.50%) expressed 'disagree' and 11 (8.27%) users expressed 'neutral' about the availability of OPAC terminals in library.

In BBAU, 8 (8.24%) users expressed 'strongly agree' about the availability of OPAC terminals in library , 48 (49.48%) users expressed 'agree', 22 (22.68%) expressed 'disagree', 7 (7.21%) expressed 'disagree' and 12 (12.37%) users expressed 'neutral' about the availability of OPAC terminals in library.

In BHU, 15 (12.39%) users expressed 'strongly agree' about the availability of OPAC terminals in library , 87 (71.90%) users expressed 'agree', 12 (9.91%) expressed 'disagree', 3 (2.47%) expressed 'disagree' and 4 (3.30%)users expressed ' neutral' about the availability of OPAC terminals in library.

In UOA, 7 (12.5%)users expressed 'strongly agree' about the availability of OPAC terminals in library , 26 (46.42%) users expressed 'agree', 20 (35.71%) expressed 'disagree', 2 (3.57%) expressed 'disagree' and 1 (1.78%) users expressed 'neutral' about the availability of OPAC terminals in library.

5.17. Alternative Methods for Searching

Some respondents answered that they were used alternative methods for searching in place of OPAC. This study focused on alternative methods which have used by respondents.

Table.5.17. Alternative Methods for Searching

S. N.	Alternative Methods	AMU	BBAU	BHU	UOA	TOTAL	%
1	Consult Card Catalogue	60(42.55%)	7(6.86%)	33(24.44%)	18(26.47%)	118	26.45%
2	Search Shelves Individually	33(23.40%)	52(50.98%)	54(40%)	39(57.35%)	178	39.91%
3	Ask Library Staff	24(17.02%)	26(25.49%)	21(15.55%)	7(10.29%)	78	17.48%

4	Ask Friends/Colleagues	24(17.07%)	19(18.62%)	37(27.40%)	4(5.88%)	84	18.83%
5	Total	141	102	135	68	446	100.00%

Chi-Square Calculated Value (X2) = 64.84,

Degree of freedom = 9.0

and p value = 1.55 E-10 (≤ 0.05 significant)

Chi-square Critical Value (Tabulated Value) = 16.91

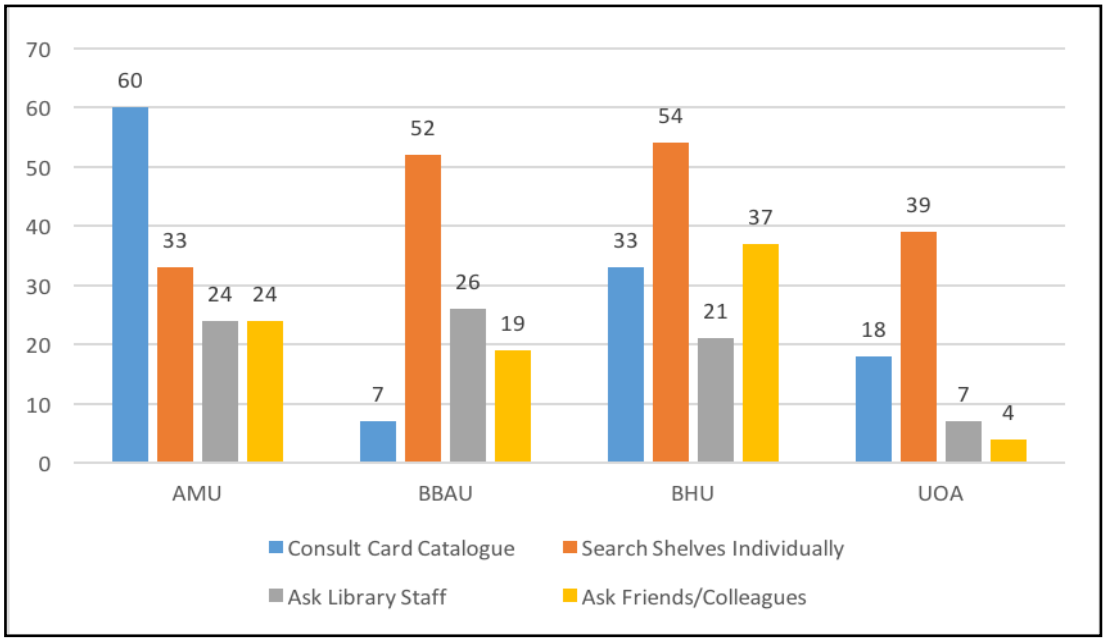

Fig.5.17. Alternative Methods for Searching

Table 5.17 and fig.5.17 shows that 118 (26.45%) respondents replied, they use consult card catalogue for searching, 178 (39.91%) respondents replied, they use search shelves Individually for searching, 78 (17.48%) respondents replied, they ask by Library Staff for searching and 84 (18.83%) respondents replied, they ask by friends/colleagues for searching in place of OPAC.

In AMU, 60 (42.55%) respondents replied, they use consult card catalogue for searching, 33 (23.40%) respondents replied, they use search shelves Individually for searching, 24 (17.02%) respondents replied, they ask by Library Staff for searching

and 24 (17.07%) respondents replied, they ask by friends/colleagues for searching in place of OPAC.

In BBAU, 7 (6.86%) respondents replied, they use consult card catalogue for searching, 52 (50.98%) respondents replied, they use search shelves Individually for searching, 26 (25.49%) respondents replied, they ask by Library Staff for searching and 19 (18.62%) respondents replied, they ask by friends/colleagues for searching in place of OPAC.

In BHU, 33 (24.44%) respondents replied, they use consult card catalogue for searching, 54(40%) respondents replied, they use search shelves Individually for searching, 21(15.55%) respondents replied, they ask by Library Staff for searching and 37(27.40%) respondents replied, they ask by friends/colleagues for searching in place of OPAC.

In UOA, 18 (26.47%) respondents replied, they use consult card catalogue for searching, 39 (57.35%) respondents replied, they use search shelves Individually for searching, 7 (10.29%) respondents replied, they ask by Library Staff for searching and 4 (5.88%) respondents replied, they ask by friends/colleagues for searching in place of OPAC.

5.18. Opinions of Users regarding OPAC

To make OPAC service better in library, it is very important to get opinion/feedback from the users connected with it. This study exhibits the opinions of users for using OPAC in table 5.18 and fig. 5.18.

Table.5.18. Opinions of Users regarding OPAC

S. N.	Opinions	AMU	BBAU	BHU	UOA	TOTAL	%
1	Very Easy	21(15.78%)	13(13.40%)	18(14.87%)	11(19.64%)	63	15.47%
2	Easy	83(62.40%)	64(69.97%)	80(66.11%)	36(64.28%)	263	64.61%
3	Difficult	16(12.03%)	11(11.34%)	7(5.78%)	4(7.14%)	38	9.33%
4	Very Difficult	5(3.75%)	4(4.12%)	2(1.65%)	3(5.35%)	14	3.43%

5	Neutral	8(6.01%)	5(5.15%)	14(11.57%)	2(3.57%)	29	7.12%
6	Total	133	97	121	56	407	100.00%

Chi-Square Calculated Value (X2) =11.48,

Degree of freedom = 12.0

and p value = 0.488 (≥ 0.05 non-significant)

Chi-square Critical Value (Tabulated Value) = 21.02

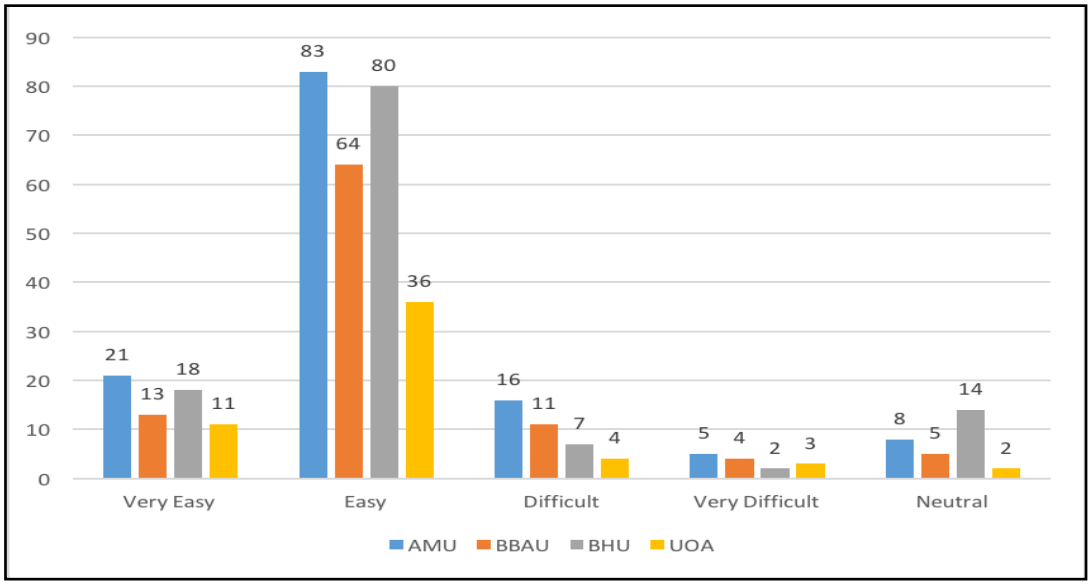

Fig.5.18. Opinions of Users regarding OPAC

Table 5.18 and fig 5.18 have shown the opinions of users for using OPAC. It reveals that 65 (15.47%) users respond OPAC very easy to use, 263 (64.61%) users respond OPAC easy to use, 38 (9.33 %) users respond OPAC difficult to use, 14 (3.43%) users respond OPAC difficult to use and only 29 (7.12%) users respond OPAC neutral to use.

In AMU, 21 (15.78%) users respond OPAC very easy to use, 83 (62.40%) users respond OPAC easy to use, 16 (12.03%) users respond OPAC difficult to use, 5 (3.75%) users respond OPAC difficult to use and only 8 (6.01%) users respond OPAC neutral to use.

In BBAU, 13 (13.40%) users respond OPAC very easy to use, 64 (69.97%) users respond OPAC easy to use, 11 (11.34%) users respond OPAC difficult to use, 4

(4.12%) users respond OPAC difficult to use and only 5 (5.15%) users respond OPAC neutral to use.

In BHU, 18 (14.87%) users respond OPAC very easy to use, 80 (66.11%) users respond OPAC easy to use, 7 (5.78%) users respond OPAC difficult to use, 2 (1.65%) users respond OPAC difficult to use and only 14 (11.57%) users respond OPAC neutral to use.

In UOA, 11 (19.64%) users respond OPAC very easy to use, 36 (64.28%) users respond OPAC easy to use, 4 (7.14%) users respond OPAC difficult to use, 3 (5.35%) users respond OPAC difficult to use and only 2 (3.57%) users respond OPAC neutral to use.

5.19 Satisfaction Level of users

OPAC is an advance service which is provided by libraries or information centers. This study also focused on satisfaction level of users (table.5.19 and fig.5.19).

Table.5.19 Satisfaction Level of users

S. N.	Satisfaction Level	AMU	BBAU	BHU	UOA	TOTAL	%
1	Very Satisfied	15(11.27%)	8(8.24%)	16(13.22%)	8(14.28%)	47	11.54%
2	Satisfied	82(61.65%)	64(65.97%)	78(64.46%)	38(67.85%)	262	64.37
3	Dissatisfied	22(16.54%)	16(16.49%)	12(9.91%)	5(8.92%)	55	13.51%
4	Very Dissatisfied	2(1.50%)	2(2.06%)	2(1.65%)	3(5.35%)	9	2.21%
5	Neutral	11(8.27%)	7(7.21%)	13(10.74%)	2(3.57%)	33	8.10%
6	Total	133	97	121	56	407	100.00%
Chi-Square Calculated Value (X2) =10.97, **Degree of freedom = 12.0** **and p value = 0.531 (≥ 0.05 non-significant)** **Chi-square Critical Value (Tabulated Value) = 21.02**							

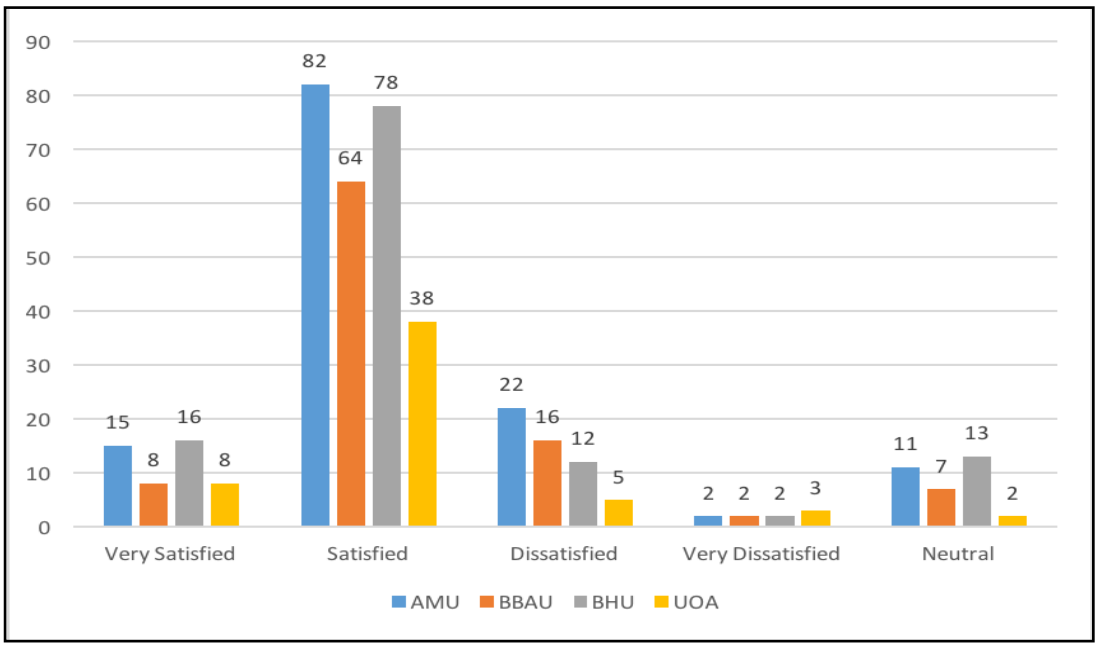

Fig.5.19 Satisfaction Level of users

The data related to overall satisfaction level of users in using OPAC is shown in table 5.19 and fig. 5.19. It highlights that 47 (11.54%) users were fully satisfied with OPAC use, 262 (64.37%) users were satisfied, 55 (13.51%) users were dissatisfied, 9 (2.21%) users were very dissatisfied and 33 (8.10%) users were neutral with the use of OPAC. Evidently, it is clear that only a large portion of users is satisfied (fully satisfied and satisfied) with OPAC working.

In AMU, 15 (11.27%) users were fully satisfied with OPAC use, 82(61.65%) users were satisfied, 22 (16.54%) users were dissatisfied, 2 (1.50%) users were very dissatisfied and 11 (8.27%) users were neutral with the use of OPAC.

In BBAU, 8 (8.24%) users were fully satisfied with OPAC use, 64 (65.97%) users were satisfied, 16 (16.49%) users were dissatisfied, 2 (2.06%) users were very dissatisfied and 7 (7.21%) users were neutral with the use of OPAC.

In BHU, 16(13.22%) users were fully satisfied with OPAC use, 262 (64.37%) users were satisfied, 78 (64.46%) users were dissatisfied, 2 (1.65%) users were very dissatisfied and 13(10.74%) users were neutral with the use of OPAC.

In UOA, 8 (14.28%) users were fully satisfied with OPAC use, 38 (67.85%) users were satisfied, 5 (8.92%) users were dissatisfied, 3 (5.35%) users were very dissatisfied and 2 (3.57%) users were neutral with the use of OPAC.

SECTION B

This section will cover the hypotheses that were proposed to be tested. The statistical analysis of the data for the existing study was done by using a simple Chi-Square test for stated hypothesis only. The Chi- Square test is an important test of significance and is used to calculate an observed group of frequencies from the null hypothesis (Kothari, 2004). The level of significance testing was set at 0.05. The statistical analysis of the data of the present study was done by using SPSS version 20 Software. Chi-Square Formula:

$$X^2 = \Sigma \frac{(O-E)^2}{E}$$

Where, O stand for observed frequency, E stand for expected frequency and Σ, summation. The researcher has fixed the 0.05 level of significance for the testing of stated research hypothesis.

Hypothesis Testing (Chi-Square Test)

H1: **Most of users have awareness and using OPAC to access the relevant information in the library;**

Null Hypothesis H_0: There is no significant difference between users regarding awareness and using OPAC to access the relevant information in the library.

Alternative Hypothesis H_1: There is a significant difference between users regarding awareness and using OPAC to access the relevant information in the library.

Table 5.5 shows that the data was analyzed using Chi-Square test. The alternative hypothesis was accepted **X^2 = 75.75 and p value = 2.50E-16 ≤ 0.05,** there is a significant difference between users regarding awareness and using OPAC to access the relevant information in the library.

Table 5.13 shows that the data was analyzed using Chi-Square test. The null hypothesis was accepted **X2 = 10.91 and p value = 0.536 ≥ 0.05** there is a non-significant difference regarding information which is searched by users in library.

H2: **Majority of users used simple search option and not aware about search techniques;**

Null Hypothesis H_0: There is no significant difference in majority of users used simple search option and not aware about search techniques.

Alternative Hypothesis H_1: There is a significant difference in majority of users used simple search option and not aware about search techniques.

Table 5.11 shows that the data was analyzed using Chi-Square test. The null hypothesis was accepted **X^2 = 5.91 and p value = 0.1163 ≥ 0.05,** there is no significant difference between users regarding awareness and using OPAC to access the relevant information in the library.

H3: Some of users are faced problems regarding number of OPAC Terminals;

Null Hypothesis H_0: There is no significant difference in some users who faced problems regarding number of OPAC Terminals.

Alternative Hypothesis H_1: There is a significant difference in in some users who faced problems regarding number of OPAC Terminals.

Table 5.16 shows that the data was analyzed using Chi-Square test. The alternative hypothesis was accepted **X^2 = 57.29** and **p value = 7.01E-08 ≤ 0.05,** there is a significant difference in some users who faced problems regarding number of OPAC Terminals.

H4: Most of the users used OPAC for the various purpose;

Null Hypothesis H_0: There is no significant difference in most of the users who were used OPAC for the various purposes.

Alternative Hypothesis H_1: There is a significant difference in most of the users who were used OPAC for the various purposes.

Table 5.7 shows that the data was analyzed using Chi-Square test. The alternative hypothesis was accepted $\mathbf{X^2 = 27.63}$ and **p value = 0.0063 ≤ 0.05,** there is a significant difference in most of the users who were used OPAC for the various purposes.

H5: Majority of users are satisfied with searching facilities available in OPAC;

Null Hypothesis H_0: There is no significant differences in users are satisfied with searching facilities available in OPAC.

Alternative Hypothesis H_1: There is a significant difference in majority of users used simple search option and not aware about search techniques.

Table 5.19 shows that the data was analyzed using Chi-Square test. The null hypothesis was accepted $\mathbf{X^2 = 10.97}$ and **p value = 0.531 ≥ 0.05,** there is no significant difference in users are satisfied with searching facilities available in OPAC.

CHAPTER- 6

FINDINGS, CONCLUSION AND SUGGESTIONS

CHAPTER - 6

FINDINGS, CONCLUSION AND SUGGESTIONS

The chapter fifth presents the foremost findings of the study in general, illustration of conclusion on the basis of research findings and lastly concludes with suggestions for further research.

6.1 Introduction

The final chapter summarizes the thesis, placing emphasis based on the outcomes of results. It explains the findings, conclusion and suggestions that can be drawn from the analysis and interpretation of data. It also presents a real picture of the OPAC service in libraries and makes implications for the improvement of OPAC services for future development. This chapter also concludes with suggestions and recommendations on the basis of users' feedback for further research in the context of OPAC use and services in libraries.

6.2 KEY FINDINGS OF THE RESEARCH

Various key findings of the study are highlighted as followed:

1. The outcomes indicates that overall majority 381 (63.18%) of the total users were daily visited in library. The highest number of users, from Aligarh Muslim University, Aligarh who visited library daily.

2. It was also highlighted that overall majority 488 (78.33%) of the total users were visited in library for study purpose and the highest number of users from BHU, Varanasi who visited library for study purpose.

3. The results of the analysis revealed that overall majority 407 (67.49%) of the total users were aware about OPAC service and 196 (32.50%) users were not aware about OPAC service and highest number of users from AMU, Aligarh who know about OPAC service.

4. The findings emerged that overall majority 166 (40.87%) of the total respondents were using OPAC 'frequently' 'Occasionally' and highest number of respondents from AMU, Aligarh

5. The results also discovered that overall majority 140 (71.42%) of the total users were expressed 'Lack of OPAC awareness' about OPAC so they don't use OPAC and highest number of users from University of Allahabad (AU), Allahabad

6. The results of the analysis revealed that majority 182 (44.71%) of the total users were know about OPAC by yourself and highest number of users from AMU, Aligarh.

7. The outcomes explore that majority 190 (38.69%) of the total respondents were used the OPAC to know the documents availability and highest number of respondents from Babasaheb Bhimrao Ambedkar University (BBAU), Lucknow.

8. The results depicted that an overall majority 314(61.08%) of the total respondents were used OPAC in library and highest number of respondents from AMU, Aligarh.

9. The result founds an overall majority 113 (27.76%) of the total respondents were rarely required help from library staff and highest number of respondents from BHU, Varanasi.

10. The result founds an overall majority 168 (41.27%) of the total respondents were taken help from guidelines for using OPAC and highest number of respondents from BHU, Varanasi.

11. It was observed that an overall majority 288 (70.76%) of the total users were used simple type of searching techniques and highest number of users from BHU, Varanasi.

12. The findings explore that an overall majority 209 (34.43 %) of the total respondents were used OPAC 'Search by Title" option for required documents and highest number of respondents from AMU, Aligarh.

13. It is further observed from this study that an overall majority 256 (49.42%) of the total users were searched books in library collection and highest number of respondents from AMU, Aligarh.

14. The study reveals that an overall majority 131(29.04 %) of the total respondents were faced problem due to the lack of knowledge of searching techniques on OPAC and highest number of users from BHU, Varanasi.

15. The findings emerged that the majority of 228 (56.01%) of the total users were respond, OPAC is 'fast' for displaying results and highest same number of users from BHU, Varanasi & AMU, Aligarh.

16. The results also discovered that the majority 233 (57.24%) of the total users were expressed 'agree', about the availability of OPAC terminals in library and highest number of users from BHU, Varanasi.

17. It was also noticed that an overall majority 178 (39.91%) of the total respondents were replied, 'they use search shelves individually' for searching documents/books and highest number of users from BHU, Varanasi.

18. It was seen that an overall majority 263 (64.61%) of the total users were respond OPAC is easy to use and highest number of users from AMU, Aligarh.

19. The results came across that an overall majority 262 (64.37%) of the total users were satisfied with OPAC services in library of central universities and highest number of users from AMU, Aligarh.

6.3 RESULTS OF HYPOTHESIS TESTING

H1: **Most of users have awareness and using OPAC to access the relevant information in the library;**

Null Hypothesis H_0: There is no significant difference between users regarding awareness and using OPAC to access the relevant information in the library.

Alternative Hypothesis H_1: There is a significant difference between users regarding awareness and using OPAC to access the relevant information in the library.

Table 5.5 shows that the data was analyzed using Chi-Square test. The alternative hypothesis was accepted **X^2 = 75.75 and p value = 2.50E-16 ≤ 0.05,** there is a significant difference between users regarding awareness and using OPAC to access the relevant information in the library.

Table 5.13 shows that the data was analyzed using Chi-Square test. The null hypothesis was accepted **X^2 = 10.91 and p value = 0.536 ≥ 0.05** there is a non-significant difference regarding information which is searched by users in library.

H2: **Majority of users used simple search option and not aware about search techniques;**

Null Hypothesis H_0: There is no significant difference in majority of users used simple search option and not aware about search techniques.

Alternative Hypothesis H_1: There is a significant difference in majority of users used simple search option and not aware about search techniques.

Table 5.11 shows that the data was analyzed using Chi-Square test. The null hypothesis was accepted **X^2 = 5.91 and p value = 0.1163 ≥ 0.05,** there is no significant difference between users regarding awareness and using OPAC to access the relevant information in the library.

H3: Some of users are faced problems regarding number of OPAC Terminals;

Null Hypothesis H_0: There is no significant difference in some users who faced problems regarding number of OPAC Terminals.

Alternative Hypothesis H_1: There is a significant difference in in some users who faced problems regarding number of OPAC Terminals.

Table 5.16 shows that the data was analyzed using Chi-Square test. The alternative hypothesis was accepted **X^2 = 57.29** and **p value = 7.01E-08 ≤ 0.05,** there is a significant difference in some users who faced problems regarding number of OPAC Terminals.

H4: Most of the users used OPAC for the various purpose;

Null Hypothesis H_0: There is no significant difference in most of the users who were used OPAC for the various purposes.

Alternative Hypothesis H_1: There is a significant difference in most of the users who were used OPAC for the various purposes.

Table 5.7 shows that the data was analyzed using Chi-Square test. The alternative hypothesis was accepted **X^2 = 27.63** and **p value = 0.0063 ≤ 0.05,** there is a significant difference in most of the users who were used OPAC for the various purposes.

H5: Majority of users are satisfied with searching facilities available in OPAC;

Null Hypothesis H_0: There is no significant differences in users are satisfied with searching facilities available in OPAC.

Alternative Hypothesis H_1: There is a significant difference in majority of users used simple search option and not aware about search techniques.

Table 5.19 shows that the data was analyzed using Chi-Square test. The null hypothesis was accepted **X^2 = 10.97** and **p value = 0.531 ≥ 0.05,** there is no significant difference in users are satisfied with searching facilities available in OPAC

6.4 CONCLUSION

It's apparent from the present investigation Online Public Access Catalogue (OPAC) is an instrument of change in the present libraries, but it's ever changeable. Automation library system generally and exclusively on line catalogue may remain made and enhance using the library from the Variety of sources. The OPACs of different organizations may be used for greater using the resources.

The OP AC is mainly used by students, academic staff and library staff. It is likely to be also frequently found in electronic libraries. The users frequently involve the OPAC with a specific importance of information. This really is because of the proven fact that students, research scholars and academic staff find updated information regarding the collection of the library.

As OPAC should provide for a wide selection of users, many whom do not need abilities in on line searching, experts can remains to recognize the issues and discover their solutions, especially in topic looking which currently presents more issues than promises. Up to now the concentration has been on the acceptance of the issues at the indexing and looking point but the future efforts is apparently directed at creating easy to use software and information based system where users' obligations regarding search technique & logics etc. The usage of OPAC by users has improved their data access specially in the positioning of books, publications and other library collection.

This really is visible in the truth that a larger proportion of the users were satisfied with the use of their search outputs. The research also shows that the significant accessibility points found in collection of information on the OPAC may be the 'author '. It seen that the non-satisfaction on the list of users with the search outputs was because of insufficient number of computers.

OPAC users don’t have to be computer specialists to perform searches. Librarians should continue steadily to perform the role of modify representative in the utilization of online catalogues. It is further figured that online catalogue assists the libraries in conference various kinds of needs for the place of unique items by an author or about an interest, as well as less 'browsing.

OPAC users also use subject search and need complete variety on OPAC available through net i.e. web OPAC. Additionally they need more OPAC terminals in the library. It has been demonstrated that OPAC is the absolute most popular and effective method of revealing the holdings and position of items in a library.

The key objectives of study were:

- To know the awareness and use of OPAC by the users of central University Libraries;
- To explore the search technique used by the users;
- To find out the place and purpose for using OPAC;
- To find out the problem faced by the user while using OPAC;
- To find out satisfaction level of the user at the time of searching OPAC;
- To collect suggestions of the users regarding the improvement of OPAC service in the Library.

To be able to obtain these objectives the hypotheses were created and tested. Today's examine was done on sample of libraries of four Central Universities of Uttar Pradesh. The investigator picked 800 respondents for the evaluation of data. The tools useful for the present investigation were questionnaire, relaxed appointment and observation. The investigation of the collected data was done to bring out the points stated in the study.

6.5 SUGGESTIONS

In view of the analysis of data, findings, personal communication, and personal observation of the respondents/users, of Banaras Hindu University, Varanasi, Aligarh Muslism University, Aligarh, University of Allahabad, Allahabad and Babasaheb Bhimrao Ambedkar University, Lucknow for the present study, the following suggestions are made on the basis of user's responses and these suggestions further help the users in effective use of OPAC service:

1. Users have recommended keeping the OPAC up-to-dated by adding new entries quickly and replacing the old entries.

2. There is requisite to trained users to attain basic skills in searching OPAC. The current study submits that there is a requirement to provide full time assistance of library staff to users and some orientation programmes should be conducted in the library with the a interpretation to educate the users on the use of OPAC.

3. Throughout the course of study, it was perceived that there are availability of OPAC terminals is insufficient so it should be increased.

4. Few respondents have suggested the library staff regarding the distribution of up-to-date library guides explaining others library services, etc.

5. The library should conduct training programmes on the OPAC at the start of every academic session.

6. The Majority of users exposed that they are very aware of the many search options and complex /advanced search available in OP AC. The library staff should initiate a user's awareness programme about these facilities.

7. Collections of books should be increased and staff should be more-friendly.

♦♦♦♦♦

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APPENDIX

QUESTIONNAIRE FOR USERS

Dear student,

I am requesting you to kindly fill up this questionnaire. The topic of my dissertation work Entitled **"USE AND EVALUATION OF ONLINE PUBLIC ACCESS CATALOGUE IN CENTRAL UNIVERSITY LIBRARIES OF UTTAR PRADESH: A STUDY"** at Babasaheb Bhimrao Ambedkar University, Lucknow. The data provided by you will be kept confidential and will be used for research purpose only. I solicited you kind co-operation in this regards.

Chandra Shekhar
M.phil. Research Scholar
DLISc, BBAU Lucknow, UP

1. Personal information
   - (a) Name …….
   - (b) Gender: MALE [ ] FEMALE [ ]
   - (c) Age group: Less than 25 [ ] 25-35 [ ] 35-45 [ ] More than 45 [ ]
   - (d) Name of the University…….
   - (e) Department Name……..
   - (f) Designation:
     (a) Graduation [ ] (b) Post graduation [ ]
     (c) Research Scholar [ ] (c) Faculty/ Staff [ ]

2. How frequently to visit the Library:
   (a) Daily [ ] (b) Twice in a week [ ] (c) Rarely [ ]
   (d) Weekly [ ] (e) Occasionally [ ] (f) Never [ ]

3. Why you visit your Library?
   (a) For the study [ ] (b) For the Research [ ]
   (c) For the Examination [ ] (d) For the Assignment [ ]
   (e) Any other reason…….[ ]

4. Are You aware about OPAC (Online Public Access Catalogue)?
   Yes [ ] No [ ]
   If yes,
   (a) Do you use OPAC?
   Yes [ ] No [ ]

(b) How frequent you use OPAC?

(i) Very Frequently [ ] (ii) Frequently [ ] (iii) Occasionally [ ]
(iv) Rarely [ ] (v) Never [ ]

If No,

(c) Why Don't you use OPAC?

(i) Lack of Computer Knowledge [ ] (ii) Lack of OPAC Awareness [ ]
(iii) Lack of Assistance by the Library Staff [ ] (iv)Lack of Computer System [ ]
Any Other Reason……..[ ]

5. How do you know about OPAC?

(a) By your self [ ] (b) From library staff [ ] (c) From friends/colleagues [ ]
(d) Through library awareness programs [ ] (e) Any other……. [ ]

6. Why you use OPAC?

(a) To check documents availability [ ] (b) To find bibliographical detail [ ]
(c) To reserve the book [ ] (d) To check location of the documents [ ]
(e) To check number of copies of any document [ ] (f) Any other……[ ]

7. From where do you use OPAC/web OPAC?

(a) Library [ ] (b)Department [ ] (c) Home [ ] (d) Hostel [ ]
(f) Any other place…….[ ]

8. Do you need any help from library staff at the time of using OPAC?

(a) Always [ ] (b) Usually [ ] (c) Occasionally [ ] (d) Rarely [ ] (e) Never [ ]

9. Any of the following tools available near to the OPAC

(a) Guidelines for using OPAC [ ] (b) Instruction available in the desktop [ ]
(c) Instructions available on the library website [ ] (d) any other……[ ]

10. Which Type of Search do you use in OPAC?

(a) Simple search [ ] (b) Advanced search [ ] (c) Boolean search [ ] (c)Truncation search [ ]

11. Under which entry did you search for the required document?

(a) By Title search [ ] (b) By Keyword search [ ] (c) By Author search [ ]
(d) By Call no search [ ] (e) By Subject search [ ] (f) By ISBN search [ ]
(g) By Publisher's name and year search [ ] (h) Any other……[ ]

12. What do you search in your library OPAC?

(a) Books [ ] (b) Reference books [ ] (c) Theses/ Dissertations [ ]
(d) Journals [ ] (e) Any others…….....[ ]

13. Which types of problem you face while using OPAC?
    (a) Creates confusion [ ] (b) Lack of knowledge of searching techniques [ ]
    (c)Lack of speed of accessibility [ ] (d) Lack of Bibliographical data on OPAC [ ]
    (e) Language problem [ ] (f) Any other problems…… [ ]

14. What are the Response time for displaying results?
    (a)Very fast [ ] (b) Fast [ ] (c) Slow [ ] (d) Very slow [ ] (e) No result [ ]

15. Are the Sufficient terminals of OPAC use in the library?
    (a) Strongly agree [ ] (b) Agree [ ] (c)Disagree [ ] (d)Strongly disagree [ ]
    (f) Neutral [ ]

16. Any Alternative methods are used for the searching of the documents:
    (a)Consult card catalogue [ ] (b) Search shelves individually [ ] (c)Ask library staff [ ]
    (d)Ask friend/colleagues [ ] (e) Any other…….[ ]

17. What do you think, does your OPAC is easy to use?
    (a)Very easy [ ] (b) Easy [ ] (c) Difficult [ ] (d)Very difficult [ ]

18. Are you satisfied with the OPAC service of your library?
    (a)Very satisfied [ ] (b) Satisfied [ ] (d)Dissatisfied [ ] (e)Very Dissatisfied [ ]

19. Please give your valuable Suggestions for improving use of OPAC
    ……
    ……