Attitude of Library Professionals Towards Information Communication Technology in the Select Central University Libraries of Delhi and Uttar Pradesh

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ABSTRACT

With the advent of new technological transformations in libraries and information centres, library professionals have experienced major challenges with changes in the generation, creation, dissemination, and preservation of knowledge in libraries. The objectives of the present study are to find out the hindrances to implementing ICT, and incorporation in libraries has a prominent place in fulfilling the needs of users, but one must not ignore the fact that ICT is not only the factor responsible for achieving the goals of libraries; it is also the library professional's positive attitude that endorses the implementation of the same. There are many factors that can help library professionals develop a positive attitude, including prior knowledge, proper training, and continuing education like in-service courses, workshops, and seminars. If the staff of the library shows a positive attitude towards the adoption of ICT in their organisation, it will raise their self-confidence, thereby increasing productivity, while also raising their morale and motivation among colleagues. On the other hand, a negative attitude will raise high levels of anxiety, lower levels of self-efficacy, technophobia, cyberphobia, and fear of losing their jobs. The negative attitudes of library professionals are the main hindrance to the implementation of ICT in libraries. The present study's findings can advance our understanding of ICT adoption in libraries and provide practical recommendations for maximizing the use of ICT resources in library services. The study concluded that the major objectives have been accomplished by those in the library industry who adopt a critical stance toward the adoption and rejection of new technologies.

Keywords: Information communication technology; Library professionals; University libraries; ICT implementation; ICT training

1. INTRODUCTION

Information and Communication Technology (ICT) is an indispensable component of contemporary library landscapes. The integration of ICT tools with technology has had a considerable impact on the tasks and responsibilities of library professionals, as well as the way libraries function in providing services to their patrons. The development of digital technology, internet connectivity, and sophisticated software applications have ushered in a new era of information management and service provision in libraries. While information is growing at a very fast rate, affecting every aspect of society, libraries are also not lagging. Though information is scattered in many areas and in different modes, libraries have also changed from traditional libraries to modern libraries to keep up with new technologies[1].

It was during the 1960s that ICT was first introduced in university libraries to enhance the efficiency and cost effectiveness of library activities. It has also reduced many tedious tasks and activities[2]. Nowadays, several ICT tools are used in various library operations and services for effective dissemination of information[3]. The use of new ICT equipment like computers and internet helps to save time and energy of the library staff as well as users. The role of ICT is being increasingly used in library operations such as acquisition, circulation, classification, online cataloguing, inter-library loan, documentation, serial control, information storage, reference, and information services[4].

Newly ICT-based services are introduced in libraries, such as SDI, CAS, electronic document delivery services, networked information resourses, Web OPAC, photocopying services, reference services, online instructions, CD-ROM, online reader advisory services, bibliographic services, etc., to assist the users[5].

ICT has transformed the way libraries operate, serve their users, and manage information. Library professionals' awareness of ICT is essential for adapting to the changing landscape of information management. Due to their awareness, they become more actively involved in digital creation, collection, and management repositories. A similar result was obtained by Aharony[7], who found that librarian's attitude towards mobile library services and what extent the acceptability of technological implementations enhances their skills to use more digital tools to provide web-based information to their patrons.

Sohail & Gupta[8] explore whether librarians are aware of how to tackle the problems that have affected library services and offer a tactical solution to the problem's libraries faced during COVID-19. To allow effective library management and provide improved services to library users, there are nine strategic methods for managing libraries in the post-COVID period.

In the context of psychology, especially social psychology, attitude is an important concept as it plays an important role in individual behaviour and judgment. Attitude is described as a predisposition to behave towards something or someone in each situation[6]. Attitude can either be positive or negative, depending on one's beliefs about the system. With the emergence of new technology, library professionals faced many challenges with the generation, creation, dissemination, and preservation of knowledge[8]. They need to update themselves and keep pace with new technologies to enhance their knowledge and competency skills, as well as have a positive attitude towards the use and implementation of the latest technologies in libraries.

Recent developments in information and communication technology have totally changed the nature and behaviour of accessing information. It is not denied that technology by itself does not bring change; rather depends upon the attitude of library professionals who implement those technologies for providing effective and efficient services to their users[9]. Therefore, it must be said that the attitude of library professionals plays an important role in implementing and using new technologies in libraries to assist their user's informational needs, librarians play a vital role in facilitating access to information[10]. It is crucial for library professionals to adapt to these developments and effectively use ICT resources to improve their services, as technology continues to advance at a rapid rate[11]. However, not only the availability of technology but also the attitudes and opinions of library professionals towards ICT are crucial for the acceptance and integration of ICT in libraries. Understanding the attitudes of library professionals, and how quick and efficient library professionals are in adopting technological innovations and identifying obstacles and opportunities associated with this transition. Researchers and practitioners can learn a lot about the factors influencing the adoption and use of technology in libraries by looking at how library professionals feel about ICT[12].

2. REVIEW OF RELATED LITERATURE

Literature demonstrates that numerous researches has been carried out to investigate the competences and mindset that librarians would need to address the challenges of the digital age. Arif, M. and Mahmood, K.[13], outlines a study that investigated how Pakistani librarians were utilizing Web 2.0 tools and discovered that the most common tools used by librarians in both their professional and personal life were wikis, blogs, social networking, and instant messaging. Atand[14], et al. opine the attitudes and professional abilities of library professionals using digital and ICT based tools in Nigerian university libraries are not different than Central Asia prospective. While some library staff members have the requisite digital competencies, others are unable to deliver digital services successfully. There is a need for training and development initiatives to improve the digital competence of library staff.

Fakkirappa Kattimani[16] et al. performed the study was to assess the ICT competencies of librarians and information professionals of engineering college libraries in Indian state of Kerala. The research findings of the survey evaluate the level of ICT expertise possessed by these professionals, including online technologies, networking, computer hardware and software, and digital library software. Kumar[16], et al. explores the usage of ICT in Indian state of Karnataka's college libraries, and examine the infrastructure level and barriers of automation, including librarian attitudes towards ICT. Library personnel need thorough and relevant training to employ ICT technology even though they have a positive attitude toward ICT and automation.

Husain & Nazim[17] gather information about their ICT infrastructure, applications, advantages, and barriers, the study conducts a survey of 15 librarians at the Central University Libraries in India. The study concludes that while modern ICT-based tools for knowledge generation and exchange are rare, university libraries in India have largely used traditional ICT-based solutions to manage library activities and services. Ejedafiru[18], et al. found the lack of qualified staff, low ICT skill levels among users, ignorance of the advantages of ICT use, and inadequate ICT infrastructure are frequently mentioned as important obstacles to ICT implementation in academic libraries. The article advises academic libraries to update their surroundings, foster knowledge, and expertise. The current condition of cloud-based library services in some of Bangladeshi academic and special libraries is examined in this work by Islam, et al.[19] They did the study using questionnaire and interviews in the paper's mixed-method technique to gather data from librarians. Only four libraries, according to the study, used cloud computing services, and they encountered several difficulties including a high subscription rate, a shaky online payment system, and a staffing shortage.

Ramzan[20], et al. explore the librarian's perspective on cloud computing and some recommendations to increase its use, is crucial. In the article, a blueprint for a cloud-based library system is put forth that can be used by other developing nations. The study also adds to the empirical investigation of cloud computing applications in Bangladeshi library services.

Kwon[21], et al. examines how usage of social media affects college student's academic performance. The association between social media use, academic self-efficacy, academic procrastination, and academic achievement is examined in the paper using a structural equation model. A self-administered questionnaire used in the study to gather information from 352 college students in South

Korea. Based on the study conducted, using social media causes academic procrastination, that has a detrimental impact on academic achievement.

Sheikhshoaei & Oloumi[22] found the association between social media use and academic laziness is moderated by academic self-efficacy. College students should be aware of the possible dangers of excessive social media use and devise plans to increase their self-confidence in their academic abilities and lessen their procrastination. Ghosh, M.[23] analyses the relational social capital only positively affects contributing knowledge, whereas structural social capital positively affects both donating knowledge and collecting it. The study also identifies cognitive social capital as a mediator between relational and structural social capital and knowledge sharing. The ramifications of these findings for managing virtual communities and upcoming research are covered in the study.

Seena & Pillai[24] show cased the identification of the different kinds of web 2.0 technologies used by LIS professionals as well as the development of web 2.0 technology skills. Their study also emphasised the necessity of improving marketing and raising consumer knowledge of library goods and services. They laid greater emphasis on the identification of the types of Web 2.0 technologies utilised by LIS professionals and the development of web 2.0 technology skills for these professionals.

The abilities needed for library and information science (LIS) professionals examined by Shah[25], *et al*. through depth interviews are used in the study to perform a qualitative study with 32 LIS experts from Pakistan and ten LIS professionals from other countries. The study also emphasizes how important it is for academics and businesses to support the development of a broad range of skills among LIS workers. The article suggests an alternative strategy as one of the essential competencies for LIS workers in Pakistan. The study adds to the body of knowledge about LIS instruction conducted by Zhou, J.[26] and explore the opportunities provided by digital technology for libraries and compared how academic libraries in China and Italy responded to the pandemic. It also analyses academic libraries' contribution to education and library services for online learning. According to the article, contemporary libraries are evolving into places of social learning where information is created and shared. Digital technology can aid libraries in expanding their reach and providing participatory services.

Achugbue & Anie[27] emphasised that the librarians had fundamental ICT abilities, they lacked advanced understanding in fields like web technology and digital library software. The study ends by advising the creation of training programs to aid the development of professional's ICT skill and raise the standard of library services offered to the customers.

Shastri & Chudasma[28] regained ever since the outbreak of COVID 19 pandemic, the global educational landscape has undergone tremendous change, with internet usage playing an increasingly crucial role. To reach their users, libraries have had to adapt to this new environment by utilising a variety of platforms and technologies, such as online databases, FAQ pages, and repositories.

3. OBJECTIVES OF THE STUDY

1. To study whether the attitude of library staff affects the library operations and services.
2. To find out the hindrances in implementing new technologies by the library staff.
3. To find out the factors that affect the attitude of library professionals.
4. To examine the attitude of library staff regarding the old and new technologies used in library operations and services.
5. To find out how training of library professionals in ICT could improve their performance level while working with ICT in libraries.

4. RESEARCH METHODOLOGY

To attain the objectives of the present study, researchers conducted a quantity survey using a questionnaire among the professional library staff working in the central university libraries of Delhi and U.P. The study is restricted to library professionals while other categories, such as paraprofessionals, university administrators, and library users, are excluded from the study. The different academic and research demands of students, staff, and researchers are catered for by these libraries, which act as significant information centres. Examining the views of librarians in these institutions might reveal important information about how ICT is generally seen in the academic library sector as well as the opportunities and obstacles that librarians must navigate when integrating ICT into their daily work. As many university libraries exist in India, the investigator restricted its scope to the central universities of Delhi and U.P., and out of the five central universities in Delhi, the investigator selected three university libraries, and out of the six central universities in U.P., three university libraries. Due to the limitations of time and resource, it was not possible to cover all universities under the present study.

4.1 Construction of the Attitude Scale

An attempt was made to construct the scale and examine its reliability and validity, since the ready-made scale for measuring the library professional's attitude was not available. Items were written in the form of statements. Care was taken to keep the language of the statement simple, clear, and direct. At the time of preparing the scale, the "librarian's attitude towards information technology scale" developed Ramzan[29] was taken into consideration. The scale was planned as a three- and five-point Likert scale, wherein the respondents had to read each statement very carefully and decide on their agreement or disagreement with it.

4.2 Mode of Answering

The scale was so prepared that the users are to respond in either of three ways, *viz*., agree (A), neutral (N), and disagree (DA), or five ways, viz., strongly agree (SA), agree (A). Neither agree nor disagree (NA/NDA), disagree (DA), or strongly disagree (SDA) by putting a tick a mark against the appropriate alternative against each statement.

4.3 Validity and Reliability of the Scale

This is one of the methods of data collection; it produces systematic, error-free, and valid information. In general, a test is valid if it represents a concept in a truthful manner. In other words, a scale is valid for use in one situation but may have no value in another. Several attempts were made to ensure the validity of the scale constructed for this study, such as the analysis of several books and articles on ICT and attitude, informal discussions with teachers and experts, and informal discussions with professionals in the field of library and information science.

4.4 Reliability Test

The Cronbach alpha coefficient test is one of the most used methods of reliability testing in statistics by Warrens[30]. It is most used in the Likert scale, which has multiple modes of answering, and to know whether the statements in the scale are reliable, a Cronbach alpha coefficient test using SPSS was run on the scale. The value of the test ranged from 0 to 1, with a minimum of 0.6. Some studies also suggest that the value above 0.7 shows a high level of internal reliability. To test the reliability of the present study, a Cronbach's alpha reliability test was run on 30 attitudes towards ICT-based statements using SPSS. The test revealed a value of 0.77, which indicates the high level of reliability of the scale.

5. DATA ANALYSIS AND INTERPRETATION

The demographic details and response rate are stated in below Table 1 and 2.

5.1 Attitude of Library Professionals towards ICT

In the present study, attitude is defined as the belief, perception, and opinions of library staff towards the impact of ICT applications in university libraries in Delhi and U.P. To find out their attitude, respondents were asked to show their level of agreement or disagreement on 30 attitude-based statements on a five-point Likert scale. 30 statements were divided into four sub-headings. 8 statements were used to draw under the heading 'attitudes of library professionals towards general ICT attitudes', 11 statements dealt with 'the impact of ICT', 7 concerning "attitudes toward ICT training of library staff," and 4 statements regarding 'the barriers of ICT applications in libraries. The analysis and interpretation for each heading are described in the text and presented in tables carrying the respondent's responses on a five-point Likert scale against each statement.

5.1.1 Attitude Towards General ICT Statements

The attitude of library professionals regarding some general statements towards the use of ICT to learn about the applications of ICT, which are essential in the present information scenario, reveals that only 38.5 % agreed strongly, while only 41.2 % just agreed with the statement. Even 4 % to 7 % of the respondents disagreed with the statement. About the query that repetitive and clerical functions are eliminated through computers, 39.4 % just agreed with the statement, while 32.5 % agreed very strongly. However, about 10 % disagreed completely, while the rest were indecisive. Similarly, about the query that users of today are better informed than users in the past, a total of about 71 % of users agreed with the statement, while 18 % disagreed, with the remaining being indecisive.

Regarding the query that training should be an essentiality for library staff, the majority (67.7 %) of respondents agreed with the statement, while only 19.2 % disagreed and the rest were uncertain. In the same way, about the statement that frequent interlibrary transfer is

Table 1. Select central university libraries in Delhi and U.P.

S. No.	Central university in Delhi	S. No.	Central universities in Utter Pradesh
1.	University of Delhi, New Delhi	4	Aligarh Muslim University (AMU) Aligarh
2.	Jawaharlal Nehru University (JNU), New Delhi	5	Banaras Hindu University (BHU) Varanasi
3.	Jamia Milia Islamia (JMI), New Delhi	6	Babasaheb Bhimrao Ambedkar University (BBAU) Lucknow

Table 2. Administration of university wise questionnaires and response rate

Respondents	Number of questionnaires administered	Number of questionnaires received	Number of questionnaires analysed	Response rate
JNU	93	84	75	80.64%
DU	120	109	92	83.33%
JMI	48	42	38	79.16%
AMU	86	81	73	84.88%
BHU	142	137	131	92.25%
BBAU	7	7	7	100%
Total	496	460	416	83.87%

Table 3. Attitude toward general ICT statements

S. No.	Statements	SDA	DA	NA/ND	A	SA
1.	In the present information scenario, the application of ICT is essential	18 (4.3%)	34 (8.2%)	32 (7.7%)	171 (41.2%)	160 (38.5%)
2.	Computers help eliminate repetitive and clerical functions.	27 (6.5%)	31 (3.5%)	59 (14.2%)	164 (39.4%)	135 (32.5%)
3.	The library users of today are better informed about the existence of information resources	20 (4.8%)	55 (13.2%)	44 (10.6%)	164 (39.4%)	133 (32%)
4.	Library staff training should be a regular feature	30 (7.2%)	50 (12%)	54 (13%)	154 (36.5%)	130 (31.2%)
5.	Frequent inter library transfers are good for the individual	109 (26.2%)	92 (22.1%)	78 (18.8%)	74 (17.8%)	63 (15.1%)
6.	Switching over from manual to automated system has enhanced the prestige of library staff	26 (6.2%)	55 (13.2%)	59 (14.2%)	149 (35.8%)	127 (30.5%)
7.	If transferred from one section to another it is difficult to learn the working of other modules by the individuals	125 (30%)	91 (21.9%)	44 (10.6%)	97 (23.3%)	59 (14.2%)
8.	Frequent inter library transfers are good for the library	119 (28.6%)	82 (19.7%)	54 (13%)	109 (26.2%)	52 (12.5%)

good for individuals, the majority (48.3 %) of respondents disagreed with the statement, while 32.9 % agreed, with the remaining being indecisive. The findings also show the negative attitude of the library staff. In response to the statement that automated libraries will enhance the reputation of library professionals, a good number of respondents (66.3 %) agreed, 19.4 % disagreed, and 14.2 % were undecided with the statement.

Considering the statement that library staff faced difficulties in learning new modules if they were frequently transferred from one section to another, a majority of 38.5 % agreed, while 51.9 % of the respondents' disagreed, with the remaining being undecided. In response to the query that repeated interlibrary transfer is good for the library, a total of about 38.7 % agreed, while most respondents, i.e., 48.3 %, disagreed with the statement. This indicates negative attitudes among library professionals about this statement.

5.1.2 Attitude Towards the Impact of ICT in Libraries

This study aims to provide insight into the attitudes of librarians, add to the body of information on ICT adoption in libraries, and offer insights for improving the integration of technology in library services by investigating the attitudes and experiences of library professionals. In response to the query that applications of information and communication technology encourage speedy access to current information, a large part of the 45 % of respondents agreed with it, while about 5 % to 8 % disagreed with the statement, and the rest were undecided. In response to a statement that every

year ICT offers more effective and efficient ways to complete library housekeeping operations, a total of 71.3 % of respondents strongly agreed with the statement, while 18.7 % disagreed. Considering the statement that the quality of library services will be improved by the application of ICT, 40.1 % of respondents agreed, while 34.1 % strongly agreed with the statement. Only 8.2 % disagreed. 10.8 % of respondents remained undecided about the statement. About the query that it is easier to retrieve information through online resources than print resources, 40.4 % of respondents agreed, while 36.1 % agreed strongly. However, about 13 % disagreed completely with the statement, while the rest were indecisive.

In the context of the query that data retrieval through offline resources is more reliable and authentic as compared to data retrieval through online resources, 19.2 % of respondents agreed strongly, while 30.3 % agreed with the statement. Conversely, 12.5 % of respondents strongly disagreed, 23.6 % disagreed, and the rest were unsure.

About the query that information in online databases is more up to date in comparison to traditional catalogues and indexes, a large part of 41.6 % agreed strongly, while 34.6 % just agreed with the statement. Even 6 % to 9 % of the respondents showed disagreement with the statement. Similarly, regarding the query that OPAC can be utilised more effectively than a card catalogue, a total of about 77.2 % respondents (A-35.1 % + SA-42.1 %) agreed with the statement while 5 % disagreed, the remaining being indecisive. In response to the query that library professionals realised that with the help of ICT their workload in the library

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Table 4. Attitude towards impact of ICT in libraries

S. No.	Statements	SDA	DA	NA/ND	A	SA
1.	ICT applications facilitate quick access to current data	19 (4.6%)	34 (8.2%)	44 (10.6%)	187 (45%)	132 (31.7%)
2.	ICT offers more effective ways to carry out library housekeeping operations	23 (5.5%)	55 (13.2%)	39 (9.4%)	157 (37.2%)	142 (34.1%)
3.	Applications of ICT improve quality of library services	28 (6.7%)	34 (8.2%)	45 (10.8%)	167 (40.1%)	142 (34.1%)
4.	Retrieval of information is much easier through online resources than printed resources	26 (6.2%)	28 (6.7%)	44 (10.6%)	168 (40.4%)	150 (36.1%)
5.	Retrieval of information through printed resources is more authentic than online resources	52 (12.5%)	98 (23.6%)	60 (14.4%)	126 (30.3%)	80 (19.2%)
6.	An online database gives the latest information than the conventional catalogue and indexes	25 (6%)	39 (9.4%)	35 (8.4%)	144 (34.6%)	173 (41.6%)
7.	Use of OPAC is easier than card catalogue	21 (5%)	21 (5%)	53 (12.7%)	146 (35.1%)	175 (42.1%)
8.	Application of ICT reduces workload of library professionals	27 (6.5%)	37 (8.9%)	68 (16.3%)	175 (42.1%)	109 (26.2%)
9.	Data storage on computer is highly unsafe in libraries compared to print resources	52 (12.5%)	75 (18%)	65 (15.6%)	131 (31.5%)	93 (22.4%)
10.	It is not easy for library professionals to keep pace with ever-changing technologies and innovations	50 (12%)	66 (15.9%)	88 (21.2%)	117 (28.1%)	95 (22.8%)
11.	Slow speed internet and interrupted power supply reduces the interest of library professionals while working with ICT	62 (14.9%)	96 (23.1%)	69 (16.6%)	105 (25.2%)	84 (20.8%)

reduced gradually, most respondents, i.e., 68.3 %, showed agreement with the statement; however, only 6 % to 9 % of respondents showed disagreement. The rest of the respondents (16.3 %) neither agreed nor disagreed with the statement.

Regarding the query that in libraries, data storage on computers is much safer than print resources, many respondents, i.e., about 54 %, showed agreement, while 30.5 % showed disagreement with the statement, and the rest were indecisive. In response to the statement that library professionals feel difficulties in upgrading their skills with the fast-evolving technologies, a sum of about 51 % (A-28.1 %+SA-22.8 %) showed agreement, whereas about 28 % (DA-12 %+SDA-15.9 %) showed disagreement with the statement, the remaining being undecided. About the query that while working with ICT, the interests of library professionals go on reducing if there is a slow speed of internet and an erratic power supply, the majority, i.e., 46 % of the respondents, showed agreement, whereas 38 % showed disagreement with this statement. This shows the positive attitude of library staff regarding the problems associated with ICT.

5.1.3 Attitude Towards ICT Training of Library Staff

The data indicate in Table 5 the perception of library staff regarding the influence of training on the use of ICTs in libraries, about the query that training would have a greater impact on the attitude of library staff to implement ICT in their libraries. The majority of 72.1 % of respondents agreed, only 12.3 % disagreed, and 15.6 % had no opinion about this statement. Likewise, in response to the query that ICT training programs would enhance their skills and knowledge in the use of computers, 72.6 % of respondents agreed, and only 11.5 % disagreed completely, while the rest had no opinion about this statement.

In response to the statement that the attitudinal barriers of library staff can be reduced through ICT training programs, about 45 % of respondents showed agreement, 23.3 % showed disagreement with the statement, and the rest were indecisive. In the same way, regarding the query that training helps library professionals promote the usage of ICT in libraries, a large majority (72.1 % of respondents) showed agreement, only 15.1 % showed disagreement, and 12.7 % were undecided. About the query that ICT training helps library professionals change their mindset for the acceptance of new technologies in their libraries, about 65 % of respondents agreed; on the other hand, about 15 % of respondents disagreed with the statement, while the rest were indecisive.

A total of 70.4 % of respondents agreed with the query that ICT training was essential in overcoming any barrier that might come while using it in libraries, whereas

Table 5. Attitude towards ICT training of library staff

S. No.	Statements	Disagree	Neutral	Agree
1.	Training influences the attitude of library professionals to use ICT in their library	51 (12.3%)	65 (15.6%)	300 (72.1%)
2.	Training enhances the computer skills of library professionals	48 (11.5%)	66 (15.9%)	302 (72.6%)
3.	Training reduces the attitudinal barriers of library professionals to the acceptance of ICT.	97 (23.3%)	133 (32%)	186 (44.7%)
4.	Training of library professionals may promote the usage of ICT.	63 (15.1%)	53 (12.7%)	300 (72.1%)
5.	Training of library professionals is essential in introducing positive change in the library	62 (14.9%)	83 (20%)	271 (65.1%)
6.	Training is a key strategy in overcoming any resistance to change.	49 (11.8%)	74 (17.8%)	293 (70.4%)
7.	Training influences the library professionals' involvement and satisfaction with ICT	58 (14%)	98 (23.6%)	260 (62.4%)

Table 6. Attitude towards barriers of ICT applications

S. No.	Statements	Disagree	Neutral	Agree
1.	Extensive use of ICT has created threats to job security among library staff	195 (46.9%)	110 (26.4%)	111 (26.7%)
2.	Library professionals have fears of the effect of ICT on their health such as eye strain, headaches, etc.	186 (44.7%)	103 (24.8%)	127 (30.5%)
3.	High cost of ICT tools is a major hindrance for implementing ICT in library	176 (42.3%)	87 (20.9%)	153 (36.8%)
4.	Negligence of higher authorities in implementing ICT in library	199 (47.8%)	96 (23.1%)	121 (29.1%)

about 12 % disagreed and 17.8 % had no opinion about the statement. A significant 62.4 % of respondents agreed with the statement that ICT training influences library professionals' involvement, satisfaction, and confidence with new technologies, whereas 14 % disagreed, and 23.6 % had no opinion on this statement.

5.1.4 Attitude Towards Barriers of ICT Applications

Table 6 provides the data showing the agreement and disagreement of library staff regarding the obstacles to ICT implementation in libraries. In response to the statement that excessive use of ICT has made a threat to job security for those library staff who are lacking in ICT skills, a total of 26.7 % agreed, whereas 46.9 % disagreed with the statement, and the rest had no opinion about it. Similarly, for the query that increasing use of ICT has created health problems among library professionals, 30.5 % of respondents showed their agreement, whereas 44.7 % showed disagreement, and the rest were indecisive. The findings indicate that a good percentage of library staff show a positive attitude regarding the use of computers in libraries.

A total of 42.3 % of respondents disagreed with the argument that the increasing cost of technological gadgets

is the major hindrance to the implementation of ICT in libraries, whereas 36.8 % agreed with it. The findings indicate the positive attitude of respondents towards the fact that the process of applying new technologies in libraries is hindered by the rising cost of ICT. Regarding the query that higher authorities were not fully supportive of the implementation of new technologies in libraries, a total of 47.8 % of respondents disagreed, 29.1 % agreed with it, and 23.1 % remained undecided. It simply shows that library authorities were in favour of the implementation of new and advanced technologies in libraries.

6. FINDINGS AND CONCLUSION

The findings of this study state the attitude of ICT adoption in libraries and offer useful suggestions for maximizing the use of ICT resources in library services. The study can also act as a starting point for future research and policy development around libraries and information science, allowing the development of a workforce for libraries that is more technologically savvy and responsive. It may be concluded that the major objectives of the study have been achieved.

The present study found that most of the library professionals under the purview had moderate level of

knowledge; they most frequently used emails followed by social networking sites. The result of the present study also finds that training is a very important component in increasing the proficiency and efficiency of library staff in providing effective library services to their users. Library professionals show a critical attitude towards the acceptance and rejection of new technologies. If library professionals have a negative perception of new and advanced technologies, then they become a barrier to the adoption and implementation of new technologies. Similarly, if they have a positive attitude towards new technologies, they become promoters of ICT transformation. It was concluded from the earlier studies that the libraries in developing countries are lagging in the application of ICT as compared with the developed countries. The reason behind this is that the library professionals of the developing countries do not show an interest in changing their perception to switch over to new technologies thus leaving behind the traditional work patterns. Library professionals should change their attitude towards the adoption of new technologies; they must keep themselves abreast of the new and innovative technologies.

This study contributes to the broader discourse on the role of ICT in libraries and offers valuable insights for library administrators and information professionals. By addressing the concerns and challenges identified in this research, central university libraries in Delhi and Uttar Pradesh can create environments that embrace technology and provide enhanced services to their patrons.

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