

**CHANGING SCENARIOS OF COLLEGE LIBRARY AFTER THE  
COVID-19 PANDEMIC IN KATHMANDU**

**A Thesis**

**Submitted to the**

**Central Department of Library and Information Science**

**For the fulfillment of the Requirements for the**

**Master of Arts in Library and Information Science**

**Submitted by**

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**December, 2023**

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I declare that this thesis entitled “**Changing Scenarios of College Library after the Covid-19 Pandemic in Kathmandu**” has been prepared entirely by me. It has not been submitted for any other degree or professional qualification. The data, analysis, and descriptive work are my own work. Due reference has been provided on all supporting literature and resources wherever required. I am aware of and understand the university’s policy on plagiarism.

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This is to certify that Miss Nirmala Adhikari has prepared this thesis entitled “**Changing Scenarios of College Library after the Covid-19 Pandemic in Kathmandu**” under my supervision and guidance. I recommend this thesis for final approval and acceptance.

1<sup>st</sup> June 2023

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### LETTER OF ACCEPTANCE

The thesis prepared and submitted by Nirmala Adhikari entitled “**Changing Scenarios of College Library after the Covid-19 Pandemic in Kathmandu**” has been evaluated and accepted as a partial fulfillment of the requirements for the degree of Master of Arts in Library and Information Science.

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Thank you!

## ABSTRACT

This investigation report entitled “**Changing Scenarios of College Library after the Covid-19 Pandemic in Kathmandu**” examines the impact of the COVID-19 pandemic on library services in Kathmandu, Nepal. This study aims to identify the methods used by libraries to provide services to their patrons during and after the COVID-19 pandemic. Data were collected from primary and secondary sources, including questionnaires and observational tools. The study employed quantitative research techniques supplemented by observations and questionnaires. The researcher constructed a questionnaire to determine the different perspectives of library users and gathered data from library patrons who accessed the library and community services during the pandemic. The data was analyzed using simple statistical tools and presented in a chart, draft, and graphical form with descriptions. The study focused on 30 libraries in Kathmandu district, including 8 government libraries and 22 private college and organization libraries. The data collected from library personnel and patrons were analyzed to determine the methods used to deliver services during and after the pandemic. The study highlights the importance of observing and learning from the processes adapted by libraries during a pandemic situation to deliver superior services. The study found that most libraries have remained closed for prolonged periods of time, with only a small number providing limited services. The investigation highlights the need for policymakers and stakeholders to address these challenges and work towards ensuring that libraries can reopen and provide essential services to the public. The study also emphasizes the importance of considering new technologies and ways of providing services to patrons, including digital access and outreach initiatives. Furthermore, the report provides insights into the use of library management software, database management systems, and the role of in-house and outsourced staff in managing digital resources. Finally, the study recommends that academic libraries develop a pandemic preparedness plan, enhance online services, implement remote work policies, promote digital literacy, ensure health and safety measures, and maintain communication with stakeholders to better prepare for future pandemics.

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## **LIST OF ABBREVIATION**

ALA	American Library Association
DCA	Document Content Library
ICT	Information and Communication Technology
LMS	Library Management System

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Submitted by NIRMALA ADHIKARI Reg. No: 9-2-1-175-2012 Symbol No: 281797

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### CHAPTER I INTRODUCTION 1.1 Background of the study

The novel coronavirus first emerged in Wuhan, China on December 31st, 2019, and quickly spread worldwide, eventually appearing in Nepal on January 23rd, 2020. The resulting COVID-19 lockdowns have had a significant impact on various sectors, including education and healthcare. As a result, over 1.5 billion students worldwide have been affected by school and university closures, according to the World Health Organization (WHO). To mitigate the impact of COVID-19 on education, different institutions have responded in various ways depending on the available resources. Most options incorporate innovative technologies such as digital and mobile technologies, along with traditional technologies like radio and TV, to provide some form of educational continuity. However, the dependence on technology has resulted in discrepancies in access and quality of

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# CHAPTER I

## INTRODUCTION

### **1.1 Background of the study**

The novel coronavirus first emerged in Wuhan, China on December 31st, 2019, and quickly spread worldwide, eventually appearing in Nepal on January 23rd, 2020. The resulting COVID-19 lockdowns have had a significant impact on various sectors, including education and healthcare. As a result, over 1.5 billion students worldwide have been affected by school and university closures, according to the World Health Organization.

To mitigate the impact of COVID-19 on education, different institutions have responded in various ways depending on the available resources. Most options incorporate innovative technologies such as digital and mobile technologies, along with traditional technologies like radio and TV, to provide some form of educational continuity. However, the dependence on technology has resulted in discrepancies in access and quality of education due to disparities in internet and Wi-Fi availability.

The library is an essential service institution and an integral part of higher educational institutions. Effective use of the library can complement the functions of these institutions and contribute to the overall development of the student's personality. A college library is established to support the objectives and educational goals of the college, and it constantly adapts resources to meet the needs of the community of faculty, students, and alumni. The collection of the college library consists of curriculum-based documents, textbooks, reference books, supplementary documents, audio-visual materials, and non-book materials such as microfilms, microfiches, and online databases.

The objectives and aims of the college and the college library are interconnected with each other. Therefore, integration and coordination between the classroom and the library can produce fruitful results in building up the overall development of the student. The major purpose of the college library is to contribute as effectively as

possible to the institution's instructional program. Other objectives of college libraries include the following:

- To support teaching and learning activities
- To provide necessary information on how to access suitable information.
- To provide help in self-education by providing the right documents to students
- To support teaching faculties in their teaching programs.
- To provide resources necessary for research in the field of interest to the college.
- To bring together books, students, and academics under environments that promote reading for pleasure, self-discovery, personal development, and intellectual curiosity.

All libraries were forced to close down because of the COVID-19 pandemic, which made it impossible for library patrons to access the physical materials they needed and created a challenging environment for library employees. It was difficult for the library workers to continue providing books to those patrons who requested them. E-resources emerged as the only viable solution for libraries seeking to continue meeting the needs of their patrons in the face of this issue. This experience brought to light the significance of technology in the provision of library services and compelled libraries to place a greater emphasis on expanding their information and communications technology (ICT) capabilities in order to enhance the quality of the assistance they provide to library patrons.

The integration of e-learning services with academic libraries has brought about significant changes in the traditional roles and functions of the libraries. The libraries have become more proactive in providing access to e-learning materials and resources, and in facilitating online learning and research. The integration of e-learning services with academic libraries has also made it possible for the libraries to reach out to a wider audience, beyond the campus community, and to provide access to knowledge resources and services to remote users.



Furthermore, academic libraries have a crucial role in promoting digital literacy among their users. In the digital era, it is not enough to just provide access to electronic resources and services; users need to have the necessary skills and competencies to effectively use these resources. Academic libraries can play a significant role in promoting digital literacy by providing training and support to their users, and by collaborating with other stakeholders in the educational ecosystem. In conclusion, academic libraries are essential components of higher education institutions, providing vital support to teaching and research activities. With the advent of e-learning services and digital resources, academic libraries have undergone significant transformations, adapting to the changing needs of their users. Academic libraries have a critical role to play in promoting digital literacy and facilitating lifelong learning, and they must continue to evolve and innovate to remain relevant in the digital age.

### **1.2 Statement of the problem**

The library movement in Nepal is just getting off the ground and is currently in its infancy. The COVID-19 pandemics present both a threat and an opportunity once again. Given this scenario, how does the college library respond to these challenges and transform itself, given that it is the focus of the research? The subject of the research has consequently been decided upon.

### **1.3 Objectives of the study**

The objectives of the study are to:

1. Assess the impact of the COVID-19 pandemic on library operations and the duration of closures.
2. Explore the strategies employed by libraries upon reopening, including whether services were resumed fully or partially.
3. Evaluate the utilization of library management software and the extent of digitization efforts in libraries.

### **1.4 Research questions**

The following research questions have been compiled in order to assist in locating the answer to the problem statement.

- a) To what extent did the COVID-19 pandemic impact library operations, and how long were libraries closed during this period?
- b) How did libraries approach the reopening process, and to what extent were services resumed fully or partially?
- c) What channels were utilized by libraries to provide services after reopening, and what were the perceived effectiveness of in-house activities versus outreach programs?
- d) What library management software solutions were used, and to what extent were digitization efforts undertaken to adapt to the changing circumstances?

### **1.5 Scope and limitation of the study**

Some several notable limitations in the research are:

- To cover only the situation after covid-19 pandemics.
- The study will be conducted only in College Libraries within Kathmandu.
- After visiting all Kathmandu valley colleges' libraries, I will only sample those that changed their services following the pandemic.
- The study period will be till November 2022.

### **1.6 Significance of the study**

This study addresses the changing scenarios of college library service during post COVID-19. One of the important components of user studies is satisfaction towards the library service, so at this time we need to provide service to users through e-resources. In the context of Nepal, my research will be a unique and unprecedented type of investigation. Here are some significances of my study:

- It helps other libraries by providing library service through digital resources.
- It helps another physical library to move to a digital library.
- It will help the reader find out about e-services provided by the college library.
- It will help further researchers who want the research in the related field.

### **1.7 Organization of the study**

Chapter one: In this chapter, the background of the study, the problem statement, the research objectives, research questions, and the significance of the study will be discussed. Chapter two includes the basic theories considered in the research topic and the previous studies from the different articles. Chapter three This chapter will cover the research design, the targeted population, sampling procedures, and data collection procedures. Chapter four: This chapter will cover the data analysis, presentation, and interpretation of the study. Chapter five: This chapter will contain the summary of findings, discussion of the result, conclusion, and recommendation.

## CHAPTER II

### LITERATURE REVIEW

#### **2.1 Literature review**

This chapter examines the documented literature on numerous works associated with this study's research topic. Following relevant literature reviews was helpful for identifying relevant variables for the study and comprehending the research problem thoroughly.

Libraries are important for teaching activities in various academic institutions. The integration of technology in libraries has enabled better learning through a well-structured approach to information management. However, due to spread across continents and erupted around the world, this tragic moment affected health systems, society, business, economy and even education. The American Association of Museum and Library Services (2020) have COVID-19 resources for all types of libraries on their webpage ("Coronavirus Pandemic (2019-2020)", American Library Association, 2020) The Association of Academic and Research Libraries (2020) has developed a guide to support academic and research libraries in distance learning, professional development, best practices, maintaining collections during the COVID-19 crisis as well as preparing librarians for the reopening of the library (Pandemic Resources for Academic Libraries - LibGuides at ACRL, n.d.). Similarly, the International Federation of Library Unions (2020), representing many library consortia around the world, has issued a "Statement on the global COVID-19 pandemic and its impact on library services and resources" (Khan & M Rafiq, 2019). According to Ali and Gatiti (2020), health science librarians had played a crucial role during the COVID-19 pandemic in Pakistan. Promotion and dissemination of information related to preventive measures to raise public health awareness, up-to-date information to support researchers and fulfillment of the information needs of daily library users were the major roles during that time (Ali & Gatiti, 2020). In the same way, Adil proposed that Pakistani librarians could assist library users by creating online institutional repositories and library guides, producing lists of online resources on library websites, and teaching information literacy through social media (Adil SA, 2020; Rafiq et al., 2021). Although COVID-19 Pandemic had

affected globally, the university libraries in Pakistan have also been supporting the users through different media such as email, WhatsApp, by providing to medical personnel as well as through ongoing traditional services. Moreover, they delivered scanned papers of the required books and articles to regular library patrons all around the pandemic (Dadhe & Dubey, 2020).

Libraries in several nations have been able to collaborate with newspapers, radio stations, and other media channels to elevate or spread awareness. Along with several universities that have been doing their best to use library materials effectively preparing a series of tutorials, the Federal University of Delaware is also providing consultation via WhatsApp as well as through video conferencing. NDLI has 'Manifesto for Digital Libraries, UNESCO and the International Federation of Library Association and Institutions (IFLA) Reported that "Digital libraries aim to provide direct access to information resources in a well – managed, authoritative way, as well as to connect information technology with education and culture in the service of contemporary libraries (Gogoi et al., 2021). Additionally, full-text e-journals and online databases are used more frequently by academic users in the United States than other networked information resources offered by their library, such as exam papers, summaries of university theses, university publications, and public lectures, international electronic databases, and some types of electronic reference services (Heterick, 2002). Peritz & Wolman's 2003 study in Israel Bar-Ilan focused on the same topic and revealed that the majority of users used web-based databases and electronic journals (Bar-Ilan et al., 2003). Although COVID-19 pandemic had created devastating situation in the world, faculty libraries had even continued to provide high-quality data for sharing expertise, teaching and scientific research. According to Balachander and Ramesh (2019), users can access library materials in any conceivable way due to the library's transformation from a repository of information to a dispersion of information provided by ICT (Anyakoha, 2005). Similarly, through the creation of virtual libraries, inquiry-based learning, correspondent, transformative learning, face-to-face instructor and learner interactions, mastering platforms, and other methods, Wang and Lund (2020) discovered that university libraries can play a significant role in distance education (Wang & Lund, 2020). According to Samantha (2020), the library is responsible for

making its services available online during an epidemic lockdown. People are worried about how technology will make information seeking easier during the lock down pandemic crisis (Samanta, 2020). Given the fast-changing nature of the pandemic, India's University Grant Commission (UGC) decided to close all educational institutions and academic libraries, since they were finding it difficult to function properly. Although the online mode and several learning methods through websites had been considered as the effective way of learning, the role of library professionals was inevitable to make the users aware of the facilities and services during a pandemic. According to bishop and veils study titled "Public Libraries as Post – Crisis Information Hubs," Libraries played a significant role in providing internet access to community members so they could request assistance, locate lost loved ones, file insurance claims, and in general begin rebuilding their lives (Bishop & Veil, 2013).

Despite the disruption of COVID-19 pandemic, faculty libraries continue to provide high-quality data for sharing expertise, teaching and scientific research. It is well recognized that the library offers consumers virtual programs and information services, making it a "important service." Therefore, as online lessons became the norm, libraries had to come up with new strategies for connecting with their users. The University of Eswatini Libraries had to update their website and expand their social media presence in order to give updated COVID-19 information, including regional mitigation initiatives. Similarly, it also increased the availability of e-books, databases, and other electronic resources for educational use. The "Request online or in-person assistance for our course relating to research, writing, or multimedia" option provided support for instructors of online courses from the library (Mathabela, 2021).

In the same way, the abrupt events of lockout and shutdown for nearly six months have forced many students to relocate, leaving them without course materials to prepare for exams in India. This circumstance called into question how university libraries used to operate. In this unusual and urgent circumstance, the work of library professionals, particularly those at premier technology schools, is critical in informing their customers about the facilities and services they provide. The National Digital Library of India (NDLI), an IIT Kharagpur effort, has made its services available to all, giving specific COVID-19-related literature and material spanning from research articles, projects,

financing, start-ups, datasets, and multimedia elements under a single area titled 'COVID-19 Research Repository.' By emphasizing the NDLI link on their website homepage, almost all IIT libraries were involved in promoting and amplifying the usage of these important services and were a type of 'bibliotherapy' amid the COVID-19 crisis, with the goal of converting catastrophe into opportunity (Dadhe & Dubey, 2020).

Tu-keefener and colleagues investigated about health information services and technology access during and after South Carolina's disastrous flooding. The research looked on the role of public libraries as partners of public health authorities during and after a disaster and recommended that public libraries should be proactive in their preparations to provide adult patrons with dependable disaster and health digital resources. Jingjing Liu and others have addressed the role libraries may play in disaster planning and recovery through social media by sharing trustworthy information. Also, the authors' proposals might assist libraries in developing proactive risk communication strategies utilizing social media for successful information services (Liu et al., 2017).

In another study, Bishop and Veil in their research titled "Public Libraries as Post-Crisis Information Hubs" indicated that public libraries played significant role in helping community members request aid, discover lost relatives and friends, submit insurance claims, and also begin reconstructing their lives. Further, the discussion includes an assessment of the quality of the reactions as well as some ideas for improving emergency planning and response (Bishop & Veil, 2013).

The impact of COVID-19 began to reverberate around the United States as all libraries were virtually closed. In May, the American Library Association (ALA) conducted a survey of libraries of all types, reporting that the majority of academic libraries had already lost funding, or expected to lose funding within the next year, for staff, new hires, professional development, print collections, programs, and services. According to the ALA poll news release, "survey respondents revealed significant increase in the use of digital resources, online learning, and virtual programs" (Payable, n.d.; *Survey: Libraries Examine Phased Building Re-Opening, Prepare Summer Programs*, 2020). Given the conditions of COVID-19, which resulted in sudden and permanent limitations on access to physical resources and space, university libraries began to push

online counterparts of these, such as the Hathi Trust Emergency Temporary Access Service (ETAS), which Penn State said provided "reading access to more than 48% of the Libraries' print holdings" (Libraries without Walls: Even Wider Access to Digital Resources during Pandemic , n.d.).

In the modern era, almost all libraries that are aware of contemporary advancements in the field of information science have created various types of webs or online information and knowledge sources. The libraries are now linked together via INFLIBNET or another technique. A database of student's information with the library can be created for this purpose and students' e-mail addresses or WhatsApp numbers, information regarding online or web sites for accessing data linked to and relevant to their studies can be distributed to them. Various studies have shown that many publishing companies and experts had allowed free access to their publications and magazines, especially under the lockdown scenario. As E-books and e-theses were available, library personnel had also assisted several researchers in completing their study as soon as possible while remaining at their residences (Deol & Brar, 2021).

Several findings were analyzed during COVID-19 related to the scenario of several libraries (Dadhe & Dubey, 2020).

Online learning has emerged as an alternative to address the constraints imposed in the context of the corona virus epidemic and is viewed as a viable option to tackle the issues in the education sector. As a result, libraries have been investigating the gathering of possible e-resources and giving remote access to those that may be of interest to the academic and research communities.

To increase visibility, several libraries have provided a direct link on the home page. The remaining libraries have linked it under various broad headings such as central facility, academics, Quick links one each under campus (IITGoa), services and amenities (IITP), resources (IITP), and resources (IITP) (IITD). While many libraries provide major digital services, some have even implemented multi-mode access to resources to meet demand. The following sections outline some of the important services and amenities offered by the libraries under consideration.



- Remote access to e-resources.

The primary goal of any academic library is to improve and reinforce the teaching, learning, and research processes by implementing a seamless document/information delivery system, and libraries across the country have been working hard to provide services and access to collections to users who have been displaced as a result of COVID-19. While all of the libraries under consideration provide remote access to subscription digital resources, several have made significant efforts to leverage and enhance current online offerings. Notably, the IITKGP, IITK, IITBBS, IITGN, IITJ, IITI, IITM, and IITBHU have provided a step-by-step user guide on remote login to gain access to licensed E-resources.

- Free and expanded access

In response to the unpredictable and challenging circumstances, several publishers were giving enhanced access to e resources (access to materials other than those subscribed to by the library) such as e-books, e-journals, e-databases, and so on for a limited time during the epidemic. Libraries had emphasized links to these free and extended resources on their portal to increase user awareness of these alternatives. This increased the likelihood of customers using virtual services and, as a result, frequent visits to the library portal. Almost all libraries have created access points to give digital versions of newspapers and publications that may be viewed on any convenient and handy digital device.

- Open access resources

Aside from this, numerous scholarly freely available resources were available, including the National Digital Library of India (NDLI), Shodhganga, a repository of Electronic Thesis and Dissertation, Directory of Open Access Journals (DOAJ), AMS Free Online Books, Book Boon, Directory of Open Access Books (DOAB), and so on. In response to the information requirement, 20 libraries have gathered all such materials on a single page and made them available to their users.

- Resources related to COVID-19

Access to licensed electronic materials is subject to the terms and conditions under which they were obtained. As the scientific community throughout the world races against the period to identify a definite therapy for the disease, access to as much and as rapidly as possible published information to speed ongoing research is critical. Notably, several commercial publishers and vendors had taken a huge step and made COVID-19-related content freely available (Libraries without Walls: Even Wider Access to Digital Resources during Pandemic , n.d.). Others had made it easy to log in and obtain content via networks other than official ones. Here, the National Digital Library of India (NDLI), an IIT Kharagpur effort, has made its services available to all, giving specific COVID-19-related literature and material spanning from research articles, projects, financing, start-ups, datasets, and multimedia elements under a single area titled 'COVID-19 Research Repository.' By emphasizing the NDLI link on their website homepage, almost all IIT libraries were proactive in promoting and amplifying the usage of these valuable services. It was a kind of 'bibliotherapy' under the COVID-19 crisis, with the goal of converting disaster into opportunity.

- Assistance in technological initiatives

Several institutes have exceeded expectations, as evidenced by technical initiatives undertaken by the institutes during the exceptional COVID - 19 pandemic. To mention a few, from mask preparation, sanitizer, and low-cost ventilators to an interactive dashboard for obtaining varied epidemiological scenario-specific information at the city size. Libraries complement the major aims of the institutes; hence, in technological improvements, libraries have also played a significant role in serving the information demands of researchers. While the majority of libraries offer online access to multiple standards, the IITK's library page had also displays the ISO and ASTM standards for mask preparation.

In addition to emphasizing the need of continuing regular services to traditional customers (with a focus on Pakistan), Ali (2020) emphasizes the new roles of librarians in leveraging public health education as a means to increase awareness while also

offering knowledge support to medical professionals and researchers (Ali & Gatiti, 2020). Ashim Kundu (2019) examines the role of IT utilities in the modernization of academic library services in his study. This study also illustrates an innovative technical breakthrough for data administration and learning, as well as its impact on the academic library zone. Developing new responsibilities and abilities, such as adopting the "embedded librarian" persona, is increasingly required for library employees. Ifijeh examined the evolution of teaching methodologies in the Nigerian universities during the Covid-19 pandemic and observed the paradigm shifts in the roles of academic libraries. He has critically analyzed the roles libraries can play in online education which is now a global need (Ifijeh & Yusuf, 2020). During the spring 2020 COVID-19 shutdown, Gmiterek inspected 18 Polish university libraries. The research compares how libraries approached social media and the amount of participation as well as collaboration with users during a period when the physical library was closed (Gmiterek, 2021). Likewise, Okike describes librarians and information professionals disseminating information as often as they have access to authoritative information and resources, librarians and information dissemination redefined, and various methodologies chosen to meet the user needs. Mehta and Wang describe a university library's reaction to the COVID-19 epidemic since early March 2020 (Mehta & Wang, 2020). Natalie Newman Leadership was crucial during the COVID-19 crisis and the essential lessons learned from the Norman Girvan Documentation Centre (University of the West Indies), a prominent library services provider in the region, are well reflected upon, particularly in light of the virus's recurring waves hitting the public (Newman, 2021).

When the effects of COVID-19 began to be felt throughout the United States in March 2020, nearly all libraries shuttered (American Library Association, 2020). In May, the American Library Association (ALA) conducted a poll of libraries of all sorts and found that the majority of academic libraries had already lost or expected to lose funding for staff, new hiring, professional development, print collections, programs, and services. According to the ALA poll news release, "survey respondents reported significant increases in the usage of digital resources, online learning, and virtual programs" (American Library Association, 2020). Rafiq, Batool, and colleagues demonstrated

how the shift from physical to online delivery of information services has influenced libraries, particularly in poor countries. These libraries faced a number of social, economic, and technological challenges as a result of a lack of large-scale technological applications, off-campus access to subscription resources, and a scarcity of institutional repositories (*Libraries without Walls: Even Wider Access to Digital Resources during Pandemic* , n.d.). During the early time of the Covid-19 outbreak, normal life was disrupted, and libraries surely suffered, with most libraries closing their physical services due to panic and uncertainty (Rafiq et al., 2021).

When the effects of COVID-19 began to be felt across the United States in March 2020, nearly all libraries shuttered. The majority of academic libraries had already lost funding or anticipated losing funding within the next year for staff, new hires, professional development, print collections, programs, and services, according to the American Library Association (ALA), which conducted a survey of libraries of all types in May (American Library Association, 2020). On many campuses, academic libraries were among the last buildings to go since they were seen to be crucial for students (Booeshaghi et al., 2020). By the middle of March, the complete shutdown of university libraries' physical locations had become the standard, with the American Library Association and the Association of College and Research Libraries both strongly endorsing it (American Library Association, 2020; Delaney et al., 2020). (Booeshaghi et al., 2020; Hall & Duggins, 2022). The necessity for library work to be completed using particular client software on library staff computers has been eliminated in recent years due to the greater move to cloud-based services. Both academic libraries and suppliers touted the capacity of their organizations and computer systems to manage the COVID-19 problem with little disturbance. Academic libraries started promoting online alternatives to these because of COVID-19's abrupt and permanent restrictions on access to physical materials and space, such as the Hathi Trust Emergency Temporary Access Service (ETAS), which Penn State said provided "reading access to more than 48% of the libraries' print holdings" (*Libraries without Walls: Even Wider Access to Digital Resources during Pandemic* , n.d.). Nora Dimmock, a librarian at Brown University's John Jay Library, noticed the large quantity of print books that students had returned before leaving school as a result of COVID-19 and realized that

future purchase decisions needed to "more purposefully" favor eBooks over print books (Ryan & Sagaityte, 2023). Since local governments frequently don't have the resources they need, the United Nations generally plays a significant role in the recovery process. The provision of education in emergencies is based on various international legal rules that protect the right to education in crises, as well as the universal right to education for all people (UN 1948) (Anderson et al., 2011).

To ensure that everyone has access to education, preparations should be made in light of prior problems brought on by natural disasters. These include kid protection, hazard-specific water and sanitation facilities, and uniform provision for educational facilities (Castro Osorio & Culma, 2018).

Ali and Gatiti (2020) in their study "The COVID-19 (Corona virus) pandemic: reflections on the roles of librarians and information professionals proposed that university librarians should raise awareness through public health education, support medical staff and researchers, and provide traditional services to their regular patrons (Ali & Gatiti, 2020). Ashrafi-rizi and Kazempour in their paper "Information Typology in Corona virus (COVID-19) Crisis; a Commentary, discovered that obstacles generated by COVID-19 may be solved or mitigated to some extent by giving the correct information at the right time and to the right audience (Ashrafi-rizi & Kazempour, 2020). They also discovered that the production and transmission of knowledge by diverse persons and groups caused complications (Ashrafi-rizi & Kazempour, 2020). Cuan-Baltazar et al. discovered that the usage of the internet poses a danger to public health since disinformation created by media is available on the internet and users might be deceived by such misinformation in their research 'Misinformation of COVID-19 on the Internet: Infodemiology Study.' They also proposed that governments devise techniques to manage health information on the internet without censoring the public (Cuan-Baltazar et al., 2020). Rovetta and Bhagavathula in their study "COVID-19-Related Web Search Behaviors and Infodemic Attitudes in Italy: Infodemiological Study," stated that the bulk of Google Trends queries were about amuchina, face masks, health announcements, and COVID-19 symptoms (Rovetta & Bhagavathula, 2020). Hu et al. in their study titled "More Effective Strategies Are Required to Strengthen Public Awareness of COVID-19:

Evidence from Google Trends," mentioned that public reaction times to COVID-19 varied between nations. The survey also discovered that COVID-19 received less public attention. According to the report, governments should increase COVID-19 publicity, educate the public about the virus, alert them to precautions, and then try to stop COVID-19 from spreading (Hu et al., 2020). Moreover, Ladan, et.al mentioned that libraries and library associations have a role to play as genuine information sources against all the false information and conspiracies to combat the COVID-19 pandemic (Ladan et al., 2020).

During the lockdown, financial crises such as unemployment contributed to an upsurge in domestic violence against women and children (Kourti et al., 2021). Unbalanced economic conditions, fear of the future, and situations such as house quarantine and confinement all had a negative psychological influence on the human psyche, increasing anxiety and sadness (Clemente-Suárez et al., 2020). During a pandemic, digital libraries are in high demand as the greatest method to serve the community has been through a digital platform (Neog, 2020). Similarly, using social media, libraries have given reference services, information about library activities, news, new arrivals, access to open access resources, COVID-19 materials, and a link to the web OPAC (Neog, 2020). According to a survey on reading patterns during lockdown, almost 50% of respondents used e-books and resources.

In addition, several research were done related to Impact of COVID-19 on University Library Services. Connell, Wallis, and Comeaux examined the Impact of COVID-19 on University Library Services and observed the E-mail and Google Meet appointments for online reference service, electronic interlibrary loan service, online databases access such as EBSCO and ProQuest as well as webinars for academic libraries, their administrators, and their staff members to share their experiences, compare notes, and assist one another in navigating the new norms (Connell et al., 2021). According to Hendal, databases, e-journals, e-books, OPAC, videos, theses and dissertations, unified search, open access journals, open access books, and subscribed journals are examples of electronic resources (Hendal, 2020). Kelly, Johnston, and Matthews mentioned that new self-access tools and films for preparing to learn online, as well as videoconference appointment possibilities with learning experts and librarians and peer-to-peer virtual

aids to online learning, can also be available. In the same way, short video instructions, flexible online individual support choices and ways to interact with peers for technical help are all available (Kelly et al., 2020). Temiz and Salelkar explained that the library offers all students' academic support through electronic interlibrary loans, a digital library service, and digital tutoring through zoom, skype, or telephone. Additionally, they automated their "information desk" with Zoom and provided automatic "Book renewal" by shipping books to the homes of borrowers (Temiz & Salelkar, 2020). Similarly, according to Mbambo Thata's research, the library has established its institutional digital collection, which includes locally generated papers and theses, by subscribing to several e-book and e-journal platforms and databases. There are twelve interdisciplinary and multidisciplinary digital collections in all, and the Library and Information Consortium provides free digital materials to libraries to use in teaching, learning, and research (Mbambo-Thata, 2021). Martínez Cardama and Pacios mentioned all essential library activities, such as borrowing and timely reminders to extend return dates, practical information, such as VPN installation and database access, and the maintenance of electronic interlibrary loans, as well as the migration of activities such as training courses and reading clubs to the digital world (Martínez-Cardama & Pacios, 2020). It also contains a variety of activities to popularize this new manner of providing services, such as explainer films, infographics, and even more inventive choices like direct posting from their Instagram account, which might spark a WhatsApp conversation. Likewise, some libraries asked their users whether they lacked any services and how to improve them through a survey as well as the distribution of library-subscribed digital collections and online resources. Apart from the numerous benefits that accompany the intersection of technology in libraries, there are several complementary aspects after the COVID-19 pandemic. Also, it has been a timely lesson for academic libraries to re-think how they operate and prepare their libraries for post-pandemic re-openings following the COVID-19 pandemic. Hence, building, an online system for e-books, e-journals, e- theses and dissertations, e-databases, and providing access without human interaction has been a major challenge in this context (Kumar Tunga, 2021). This study is intended to find out the changing scenarios of college libraries after covid-19 pandemics in Kathmandu district.

Associated with the typical trend of using Digital Library Resources, time spent reading during lockdown, resources utilized for reading, type of content used, sources of reading material, personal library status, and the significance of reading in human mind empowerment well also addressed somehow during lockdown.

## **2.2 Conceptual framework**

The central research question of the study is how the COVID-19 pandemic has impacted library services in Kathmandu, Nepal. The study aims to identify the methods used by libraries to provide services to their patrons during and after the pandemic, with a focus on the challenges faced by libraries and the strategies employed to overcome them. The key variables in the study include library services, pandemic situation, library management, and technology. The study is guided by the theoretical framework of service delivery and management. This framework suggests that effective service delivery is essential to meet the needs and expectations of customers.



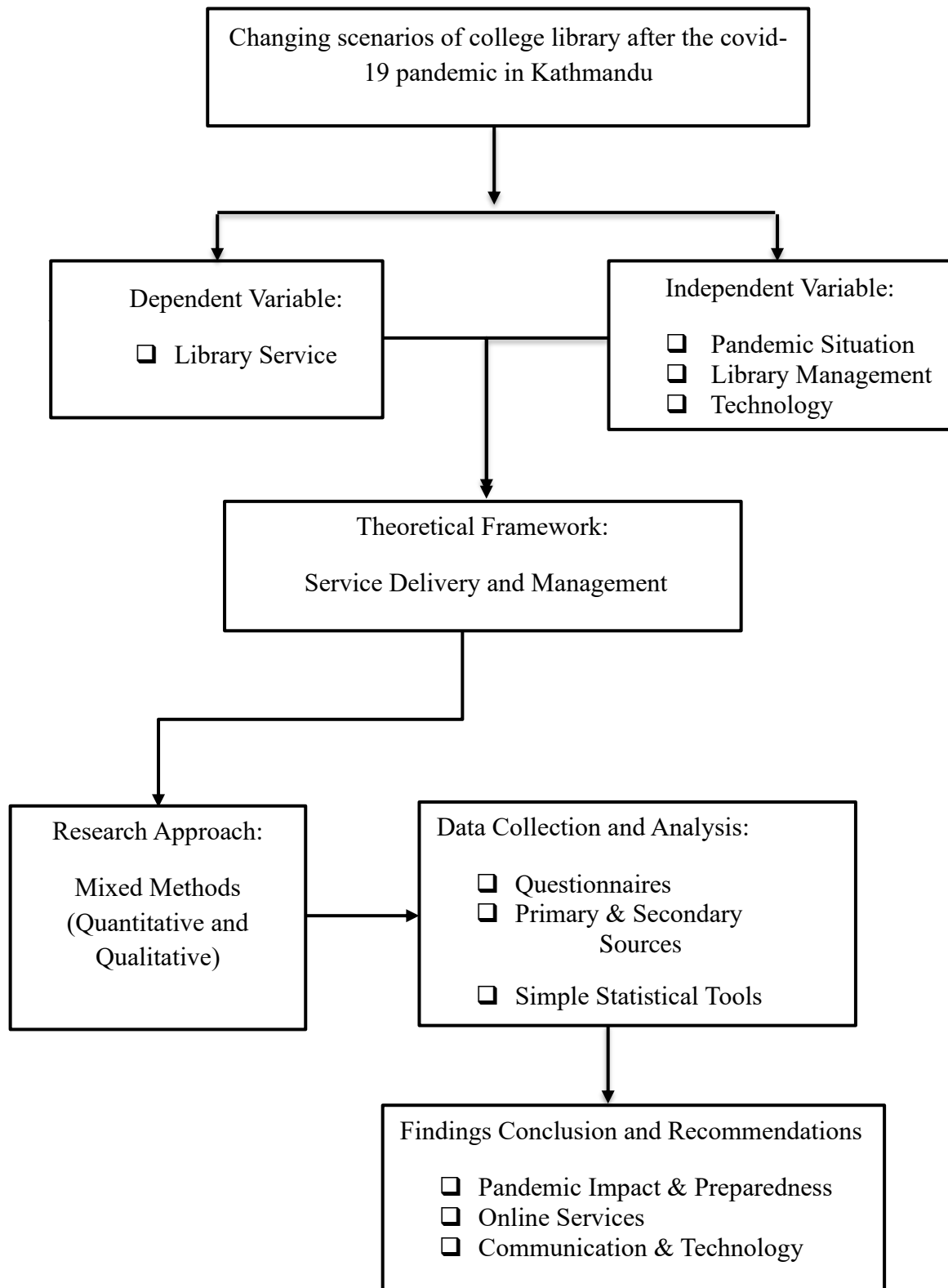


Figure 1: Conceptual framework.

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **3.1 Research methodology**

The goal of this study was to identify the method through which the library provided its services to its patrons during/after the covid-19 pandemic. Information for this study was gathered from both primary and secondary sources. Different libraries were the subject of a questionnaire that was used to gather information. Similar to this, the researcher had employed observational tools to gather data. The researcher had conducted field observations and collected data in the community and libraries as needed. In essence, this study used quantitative research techniques, which were further backed by information gathered through observation and questionnaire.

##### **3.1.1 Quantitative research methods**

The researcher constructed a questionnaire to determine the divergent perspectives of library users and gathered data from library patrons who utilized the library and community services during/after the covid-19 pandemic. Through a questionnaire, information was gathered on how people used the library services. In addition, the researcher employed observation instruments to collect data. Through observation and data collection, the library learns how to effectively deliver superior library services in pandemic situations. In addition, through observation, the researcher was aware of the process that was adapted in the library during and after the pandemic scenario. The researcher collected data using questionnaires and quantitative approaches.

##### **3.1.2 Population of the study**

For this research purpose, the researcher analyzed different libraries in Kathmandu district and the library patrons who accessed the library for informational purposes during the pandemic. The focus of the researcher was the information acquired from librarians and library patrons.

##### **3.1.3 Sample size**

In the Kathmandu district, a comprehensive study was conducted to investigate the integration of ICT facilities in college libraries. Out of the total 362 college libraries in the district, a carefully selected sample size of 30 libraries was chosen for the study.

These libraries were specifically chosen due to their active implementation of ICT technologies.

Among the selected libraries, 8 were affiliated with government colleges, while the remaining 22 were associated with private colleges and organizations. This distribution ensured a diverse representation of different types of institutions and their respective approaches to incorporating ICT facilities into their library systems.

#### **3.1.4 Statistical procedure**

For this study, researcher collected data from the library personnel of Kathmandu district. After that, data were analyzed and interpreted. The data was presented and analyzed using simple statistical tools. The collected data is presented in a chart, draft, and graphical form with a description.

#### **3.2 Research design**

The purpose of this study was to determine how the library delivered services to patrons during and after the pandemic. For this study, the researcher employed two sources for generating questions: the first one is literature review and the second is field observation. After the literature reviews of related topics and field observation at different colleges of Kathmandu district, the researcher prepared questionnaire and interview for the data collection. After that, the researcher analyzed the collected data and presented data. The researcher gave a conclusion and recommendation. The research design of this study is shown in figure as following:

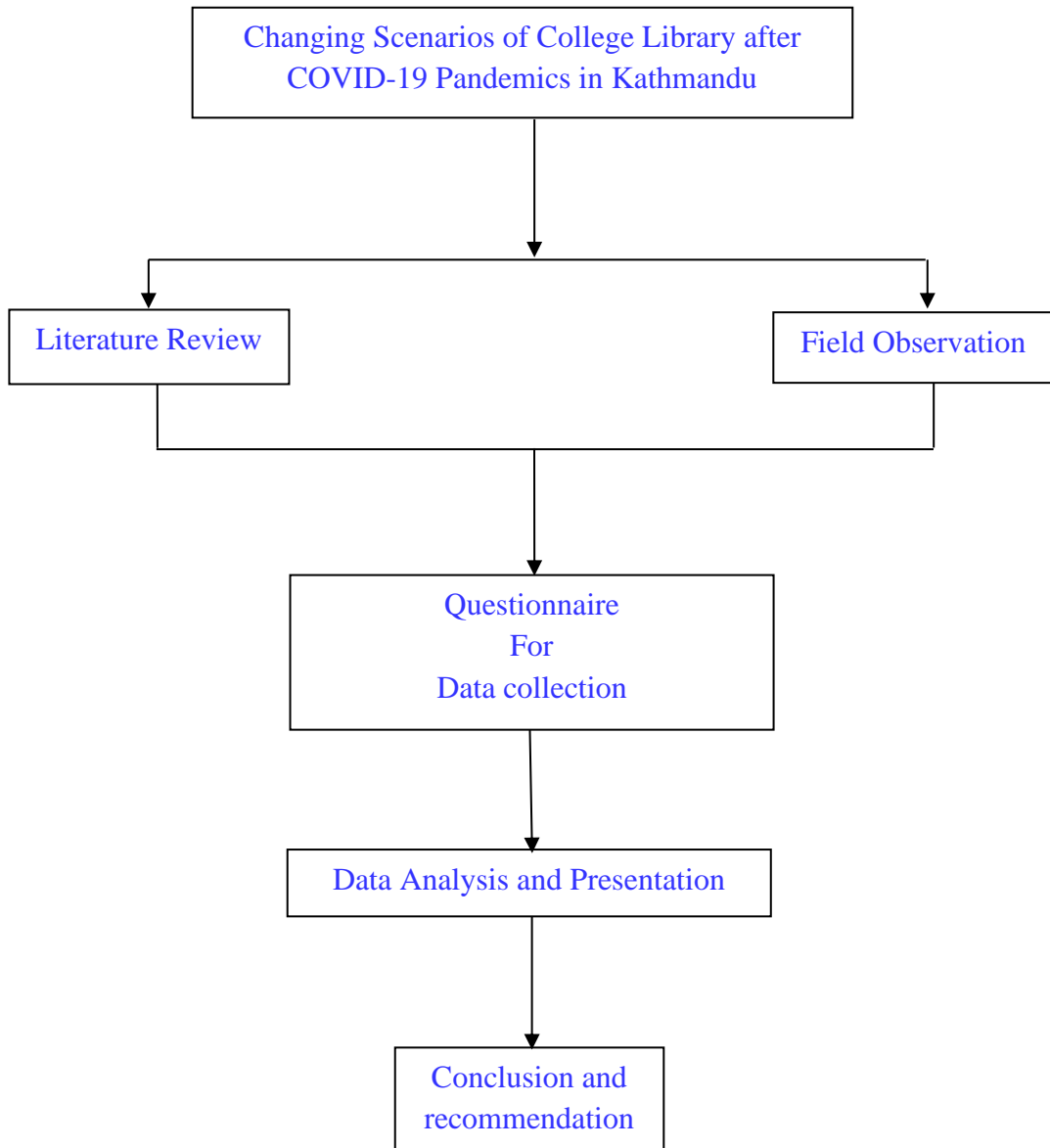


Figure 2: Research design.

## CHAPTER IV

### DATA ANALYSIS AND PRESENTATION

The analysis of data consists of organizing, tabulating, and performing statistical analysis. After collection of data/information through questionnaire; analysis and presentation has done in the following section of this chapter utilizing various statistical methods. For my study, I have collected data from 30 libraries of Kathmandu district.

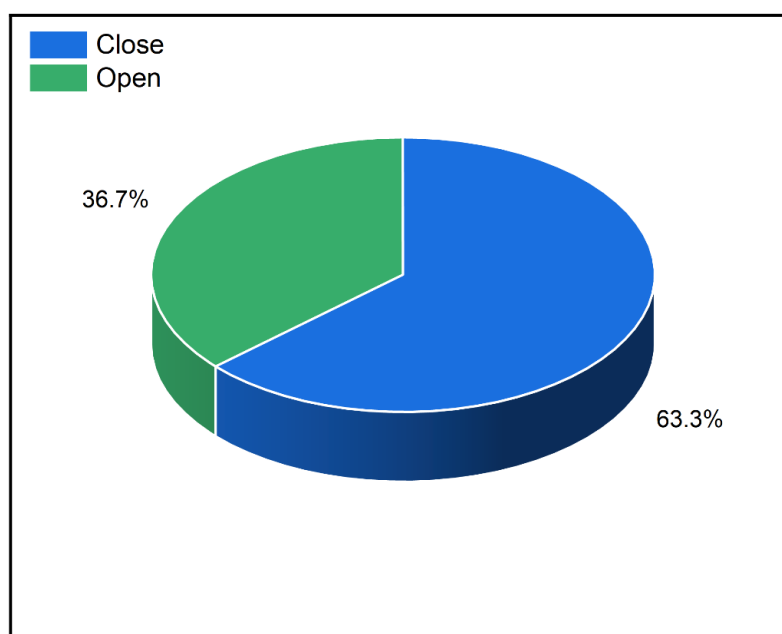


Figure 3: Scenario of library after COVID-19 pandemic.

[Source: Field Survey, 2023]

Figure 3 showed that most of the library remained closed after the COVID-19 pandemic. The findings are presented based on a survey of 30 Kathmandu libraries. There are 30 respondents in this study, with 63.3% (19 people) of the total population reporting that the library service remained closed after the COVID-19 pandemic, and 36.7% (11 people) reporting that the library service remained open. The increased number of closed libraries is a result of the COVID-19 outbreak. Similarly, the library that remained open could only provide minimal library resources.

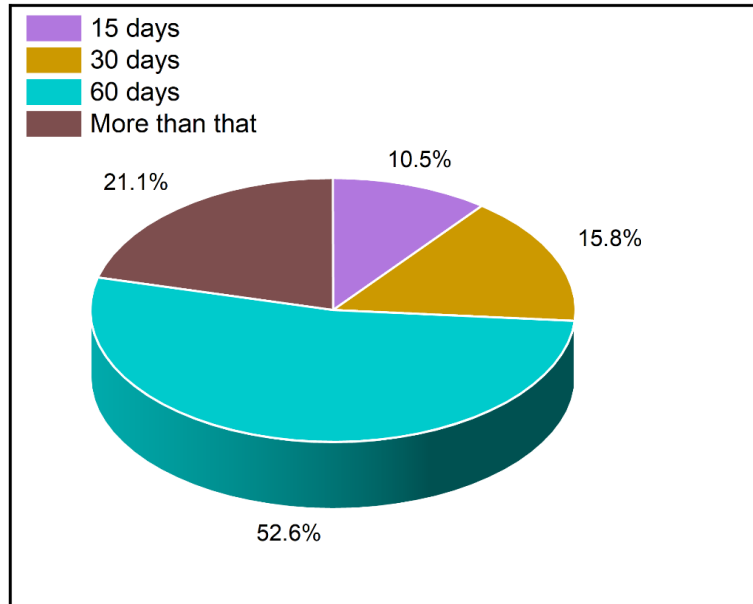


Figure 4: Number of days the library was closed during pandemic.

[Source: Field Survey, 2023]

Figure 4 depicts the number of days the library's services were disrupted during the COVID-19 pandemic. According to our findings, 10.5% of all 19 respondents reported that the library was closed for 15 days, while 15.8% reported that the facility was closed for 30 days. Similarly, 21.1% and 52.6% of total respondents reported that the service had been interrupted for 60 days or more, respectively.

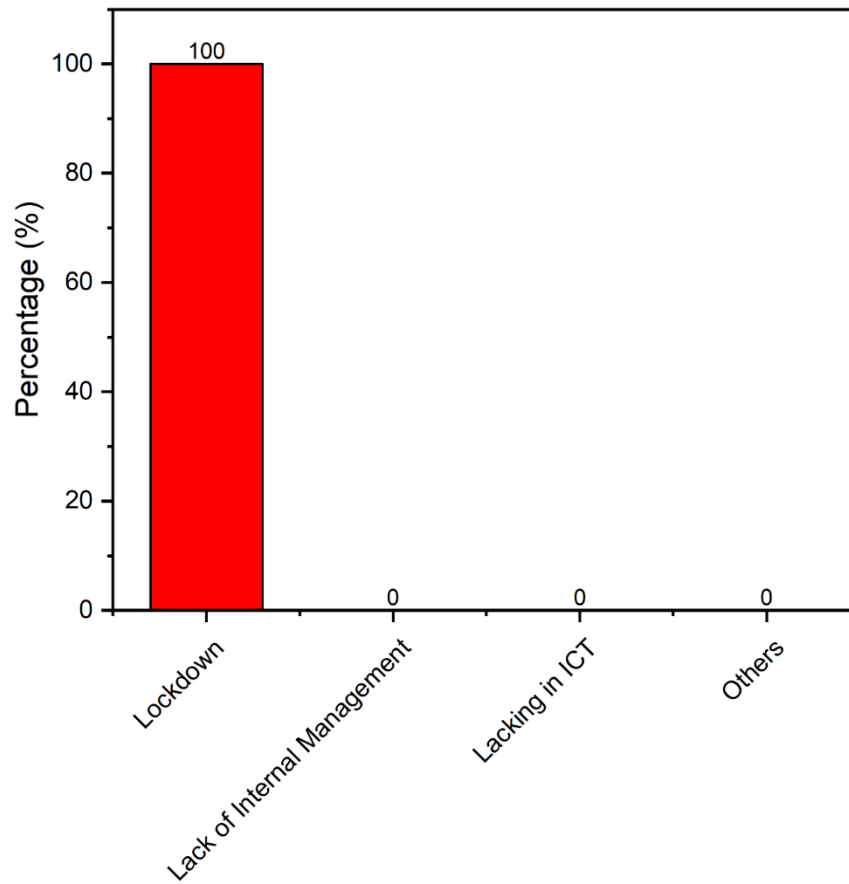


Figure 5: Reason for the library's closure.

[Source: Field Survey, 2023]

This investigation was conducted to determine why the library was not functioning during the pandemic. The lockdown was identified by 100% of the total responders (19 people) as the main reason for the interruption of the library facilities [Figure 5].

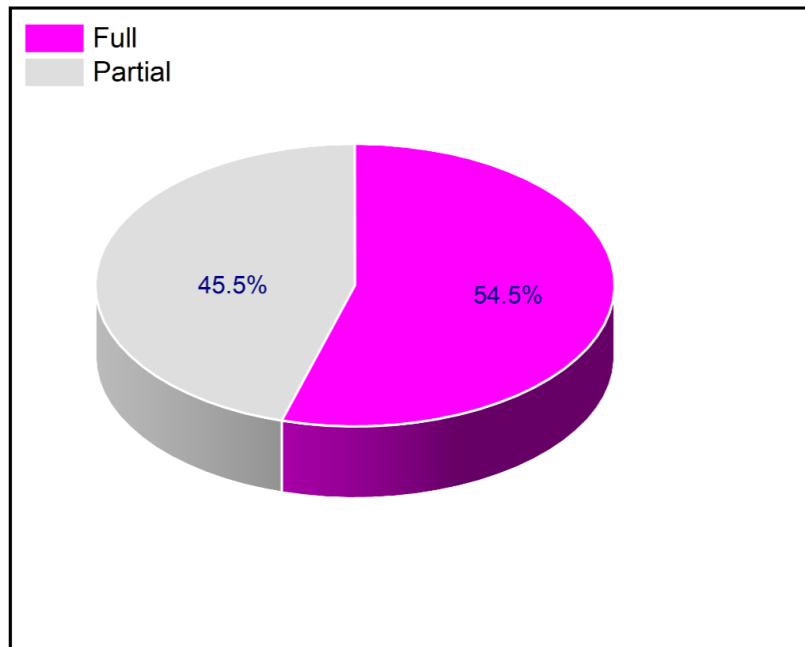


Figure 6: Depiction of how the library was opened.

[Source: Field Survey, 2023]

Figure 6 shows that 11 of the 30 libraries remained open during the COVID-19 pandemic. Consequently, we conducted a survey to determine how these libraries remained open. According to the report, six (54.5%) of the eleven remained fully operational, while five (45.5%) remained partially operational.



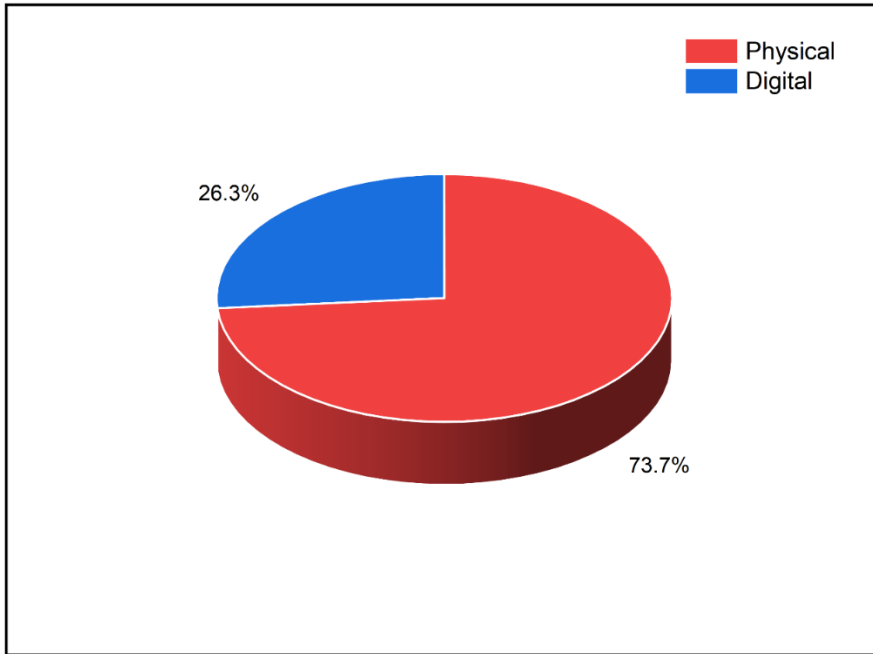


Figure 7: Channel provided service following library reopening.

[Source: Field Survey, 2023]

Figure 7 depicts how the library offered services to its patrons following the COVID-19 epidemic. In our investigation, we discovered that 73.7% of total respondents operate the library physically, while 26.3% of total respondents provide the library's patrons with a digital medium.

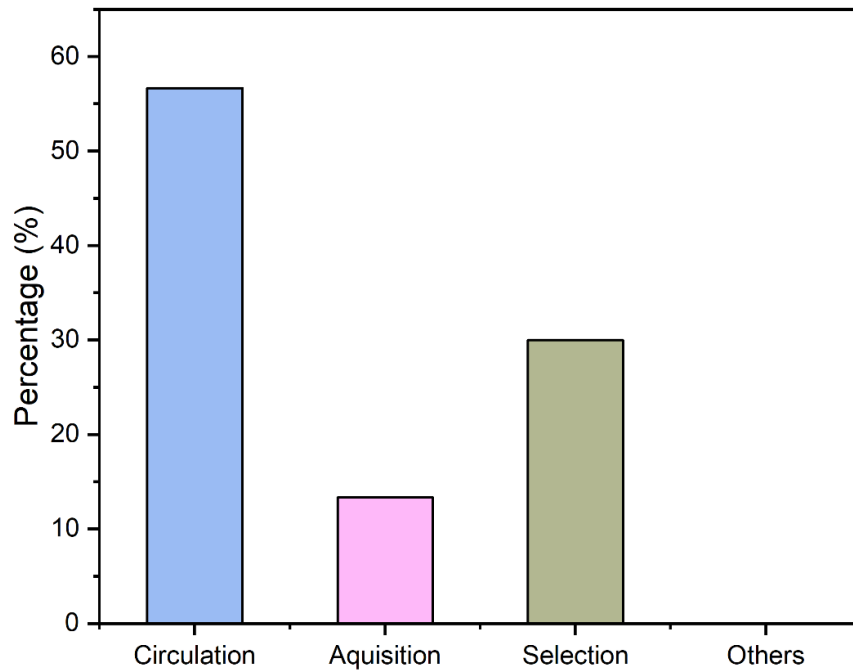


Figure 8: Library's physical reopening and service commencement.

[Source: Field Survey, 2023]

Figure 8 depicts the functioning of the library after the epidemic. As library circulation involves the renting of library resources (books, serials, sound recordings, moving pictures, cartographic materials, etc.) to library patrons, we found that 56.6% (17 of 30 libraries) had implemented these capabilities. On the other hand, 13.3% (4 out of 30 libraries) were in charge of the selection and acquisition of items or resources. In addition, 30% of libraries were aware of the procedure for selecting which resources should be added to a library's collection. None of the librarians started the services besides these.

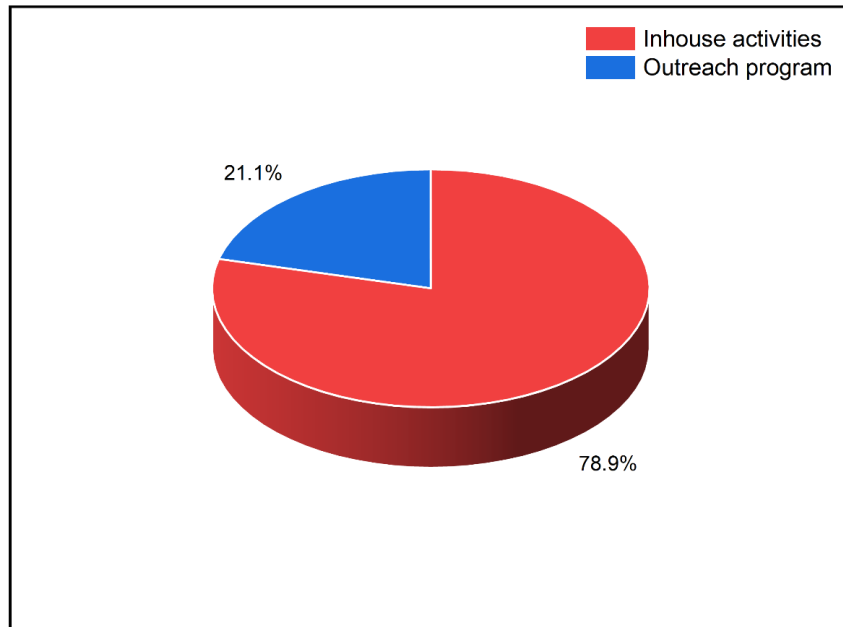


Figure 9: Initiation of digital services for the library.

[Source: Field Survey, 2023]

Figure 9 depicts how the digital service was established once the library resumed operations following the epidemic. According to our research, 78.9% (15 of 19 libraries) engage in In-house activities such as technical work/service, maintenance service, and reader's service. However, only four libraries (out of nineteen), or 21.1%, participate in the outreach initiative.

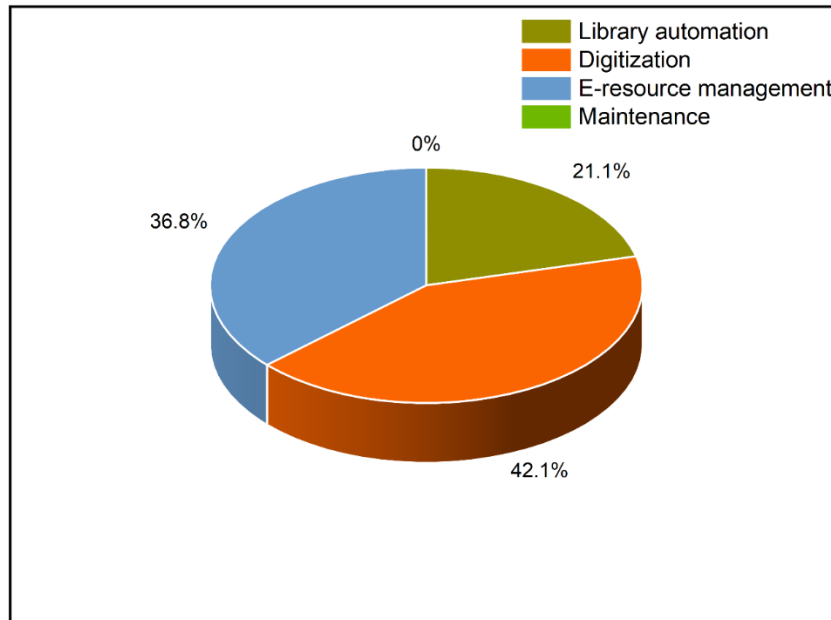


Figure 10: Commencement of in-house services at the library.

[Source: Field Survey, 2023]

Figure 10 depicts which internal services were initiated after the outbreak. According to our survey, 21.1% of respondents said that library automation has been completed. In contrast, 42.1% and 36.8% of all respondents said that digitalization and e-resource management services had been initiated, respectively. However, none of the total number of respondents reported that maintenance services had yet begun.

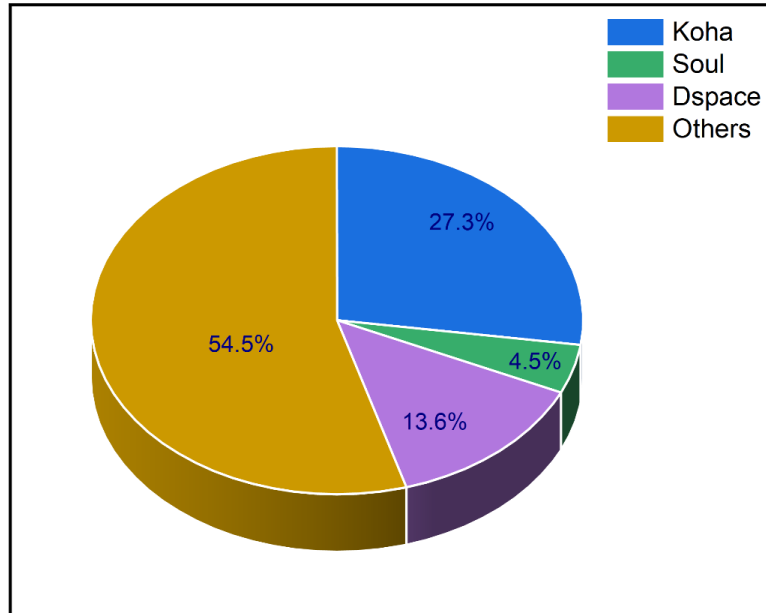


Figure 11: Library management software used in the library.

[Source: Field Survey, 2023]

Figure 11 depicts the various library management software utilized in college libraries of Kathmandu district. According to our findings, Koha library management software is used by 27.3% of all respondents. Similarly, 4.5% and 13.6% of all responders, respectively, use Soul and Dspace library management tools. In contrast, 54.5% of Kathmandu district 30 libraries use software other than the aforementioned software for library management.

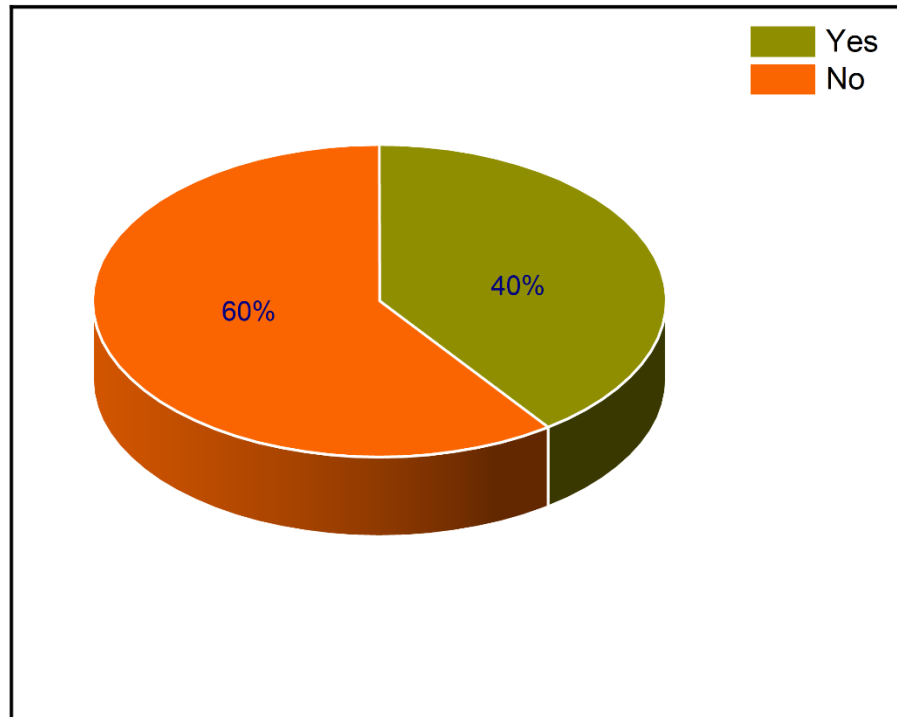


Figure 12: Library's self-digitized collections.

[Source: Field Survey, 2023]

The process of transforming analog information into a digital version is known as digitization of information resources. Figure 12 depicts whether the traditional documents, including books, papers, and manuscripts, are turned into electronic, machine-readable image format by the libraries. In our survey, we found that only 12 out of 30 libraries, i.e., 40%, have assembled their own digitization. However, 60% (18 out of 30) of libraries still do not have their own digitization. Libraries used microfilm and book scanning equipment to make digital reproductions of physical content, which they then posted on their websites or Document Content Library (DCL) hosting sites.

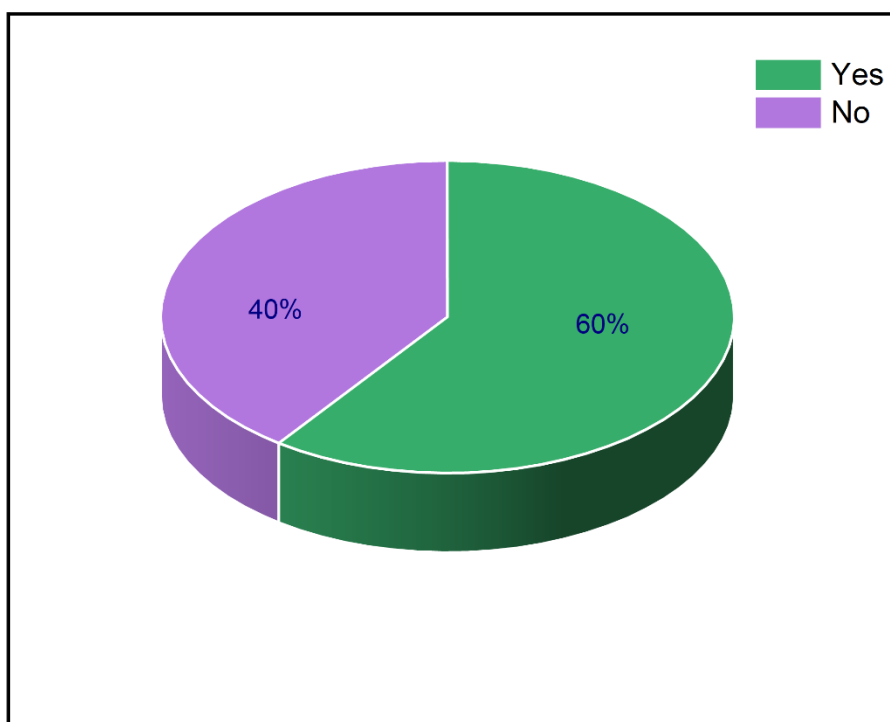


Figure 13: Library's online information management through a custom database system.

[Source: Field Survey, 2023]

The study was conducted to determine if a library management system was created to manage all of the activities of a library, as it assists librarians in maintaining a database of new books and books borrowed by members, as well as their due dates. In our study, we observed that out of 30 libraries, 60% have maintained or created their database management system for online information management. However, 40% of the library still did not create a database management system for online information management as illustrated in Figure 13.

Libraries used a library management system (LMS) to organize and manage their collections, patrons, and circulation activities. Systems such as cataloging, circulation, patron management, reporting, interlibrary loan, and management of digital resources were used to maintain the databases.

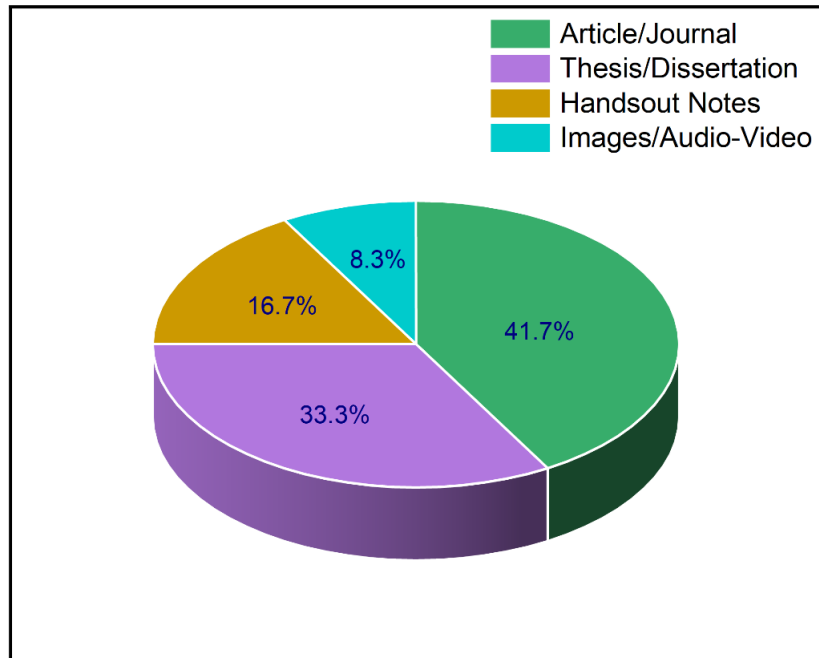


Figure 14: Type of collection updated.

[Source: Field Survey, 2023]

Figure 14 depicts the various forms of collections that are maintained and updated in library management databases. According to our study, 41.7% of the papers and journals have been updated. Similarly, the percentages of revised thesis or dissertation and handout notes were 33.3% and 16.7%, respectively. However, only 8.3% of the images and videos were gathered and updated.



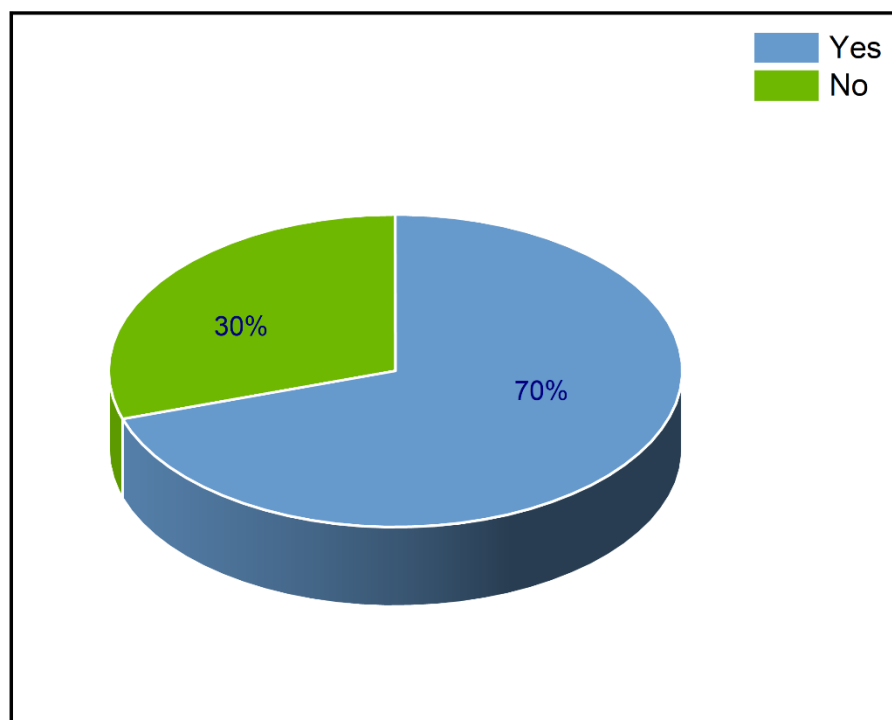


Figure 15: Idea about outreach services.

[Source: Field Survey, 2023]

As we know that, Outreach allows libraries to advertise their services, demonstrate value through interacting with users, and demonstrate their utility and relevance in today's modern academia. Keeping this in mind, we devised a series of questions to determine whether the librarians were familiar with this. According to our findings, 70% of all respondents are aware with these terms and are using them. On the other side, 30% of all respondents had no notion what outreach services are [Figure 15].

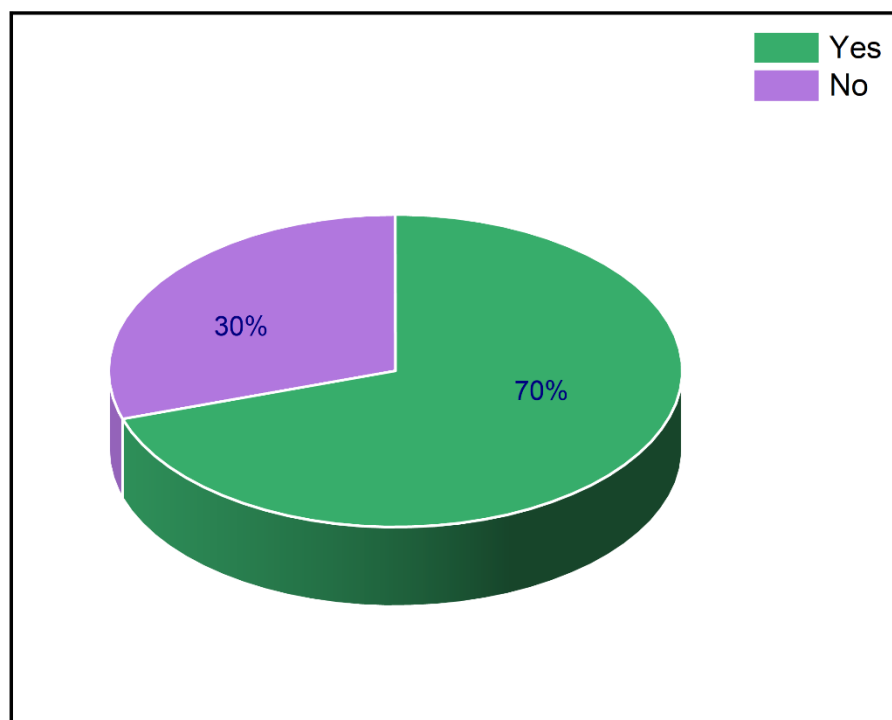


Figure 16: Utilizing ICT for outreach services.

[Source: Field Survey, 2023]

Information and communication technologies (ICT) make it easier to identify, gather, store, process, and disseminate information. To keep up with the challenge of information explosion, we tried to explore what percentage of our total respondents i.e., library and information science professionals are adopting ICT. According to Figure 14, 70% of our total 30 respondents use ICT for outreach services. However, 30% of those interviewed still do not use ICT for outreach activities [Figure 16].

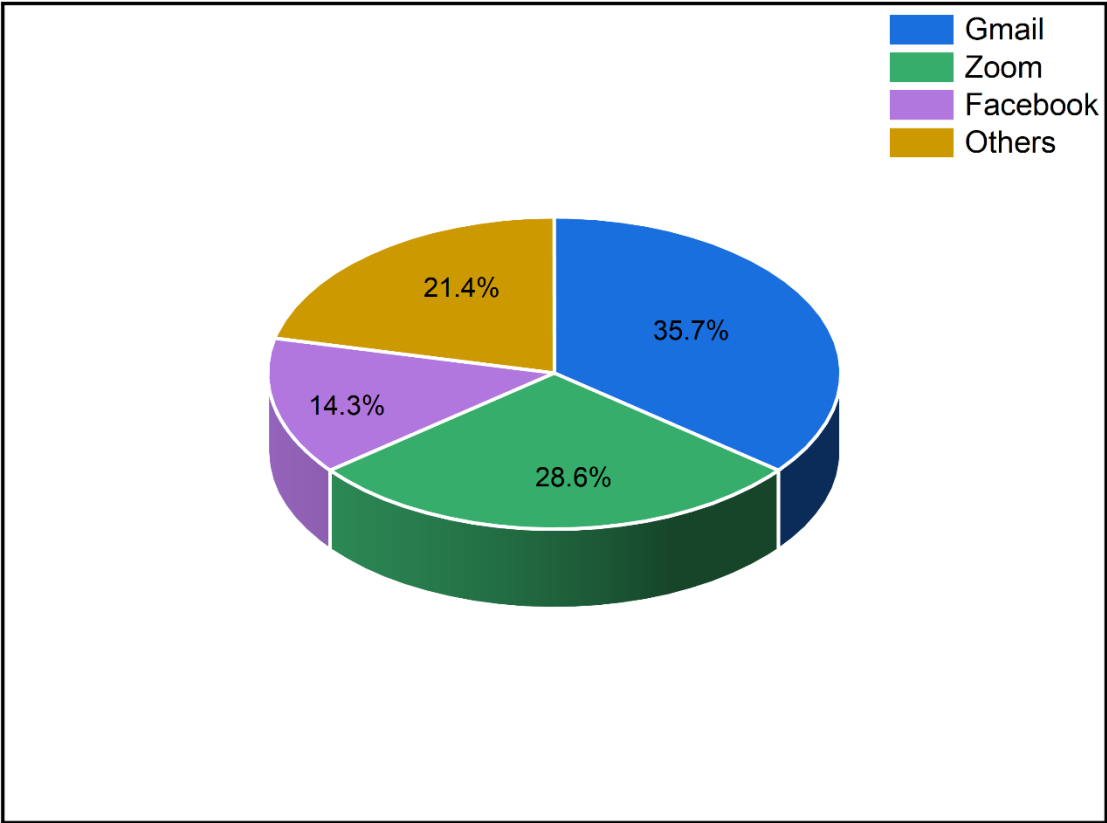


Figure 17: Outreach services through popular social media.

[Source: Field Survey, 2023]

Figure 17 depicts the many social media platforms used by librarians for outreach research. According to our study, 35.7% of all respondents use Gmail, while 28.6% and 14.3% of librarians use Zoom and Facebook, respectively. In addition, we discovered that 21.4% of library staff use additional social media such as Viber, WhatsApp, Team, and Imo to provide outreach services.

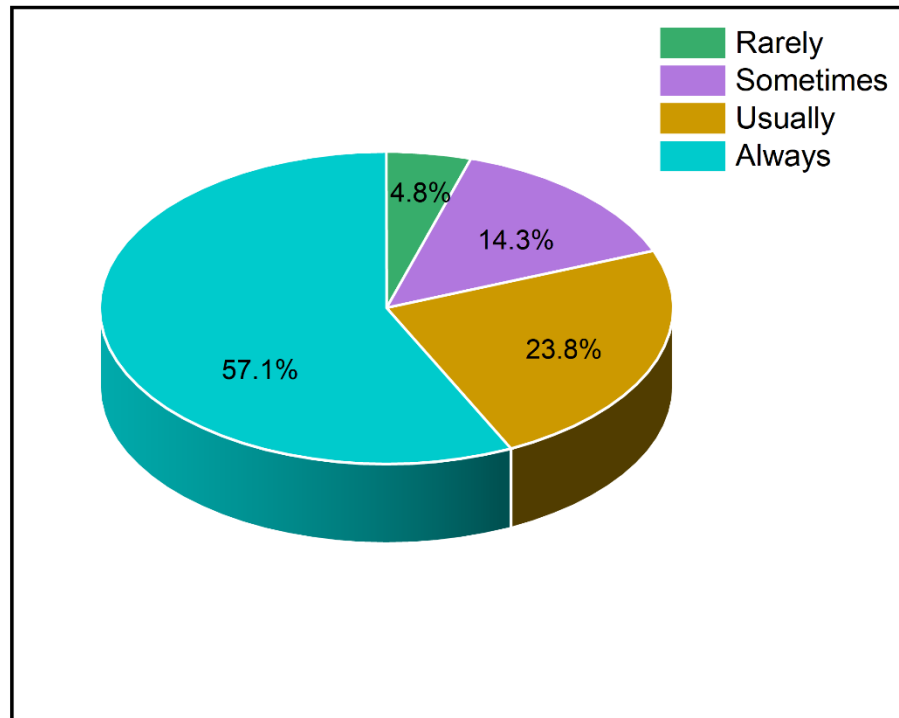


Figure 18: ICT usage in libraries compared to the pre-pandemic.

[Source: Field Survey, 2023]

Figure 18 depicts the use of ICT in a library following the COVID-19 outbreak. We discovered that 57.1% of all respondents utilize ICT even after the epidemic. However, even after the epidemic, 23.8% of respondents said they still utilize ICT at the library. On the other side, 14.3% only utilize ICT facilities sometimes. Furthermore, we discovered that 4.8% of all respondents seldom utilize ICT at the library following the COVID-19 outbreak.

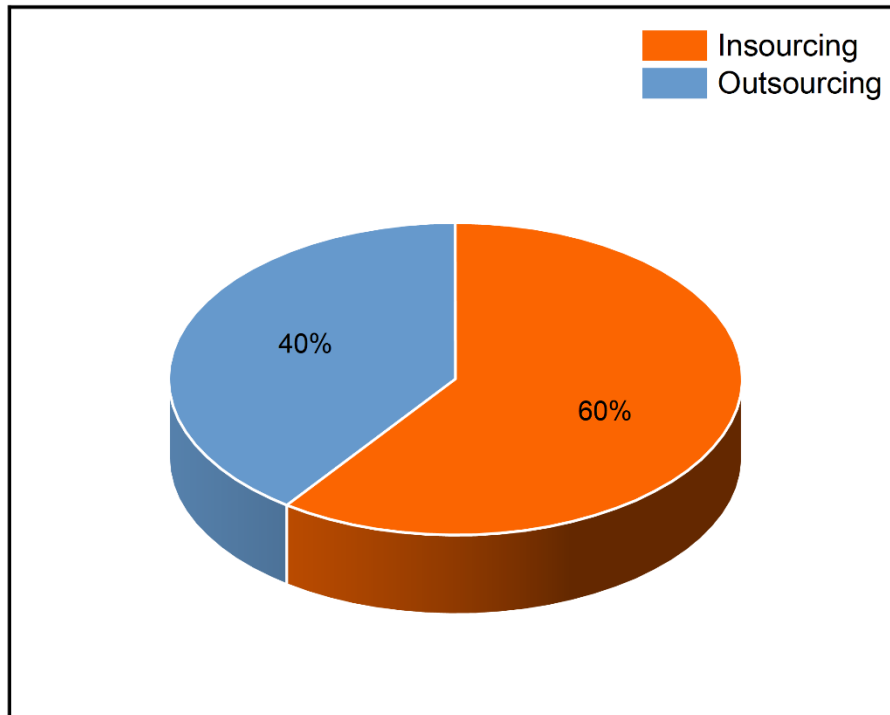


Figure 19: Handling of digital management.

[Source: Field Survey, 2023]

Digital management aids in the digital organization of library resources such as books, journals, catalogs, and so on. It makes it simple and inexpensive to visit the library. The goal of the digital library is to support learning and knowledge acquisition, to offer a firm foundation for education, and to improve quality of life. Figure 19 depicts how the digital management was carried out. The research was conducted on 30 libraries in Kathmandu district. According to our research, 60% of all libraries use their own organization personnel to manage library resources. 40%, on the other hand, were recruited or outsourced to handle digital management.

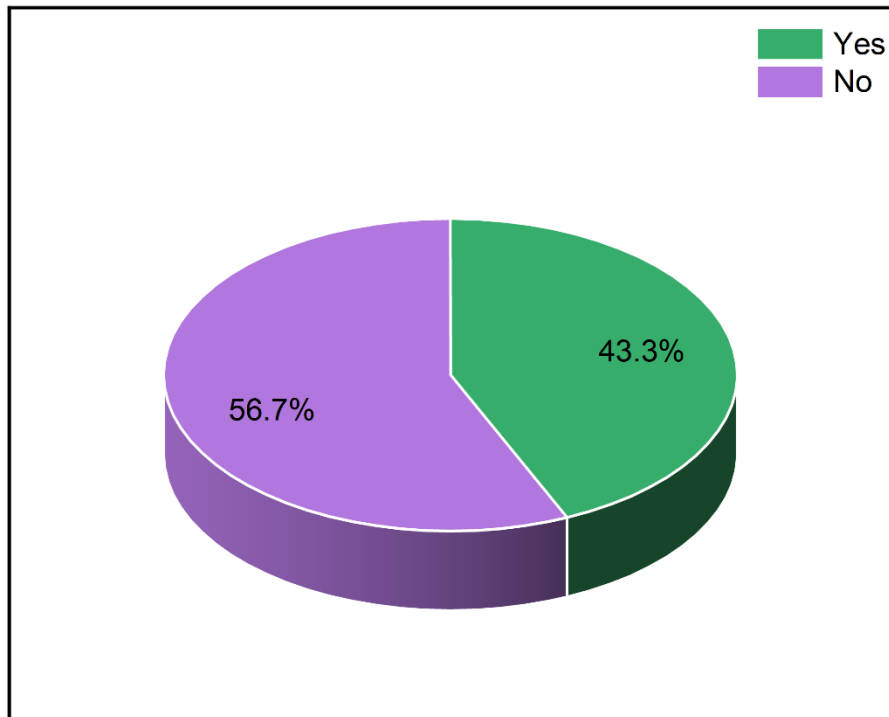


Figure 20: Evaluating the suitability of insourcing for digitalization by using insourced people and their knowledge.

[Source: Field Survey, 2023]

A study was conducted to determine whether digitalization could be accomplished with the knowledge of an insourced person. According to our investigation, 43.3% of total respondents believe that digitalization can be created utilizing insourced individuals since existing employees are familiar with the library experience, so you don't have to spend extra resources bringing others up to speed. Similarly, 56.7% said they will develop digitalization using information from outsourced personnel because all in-house employees are not technically skilled enough to maintain good library practices [Figure 20].

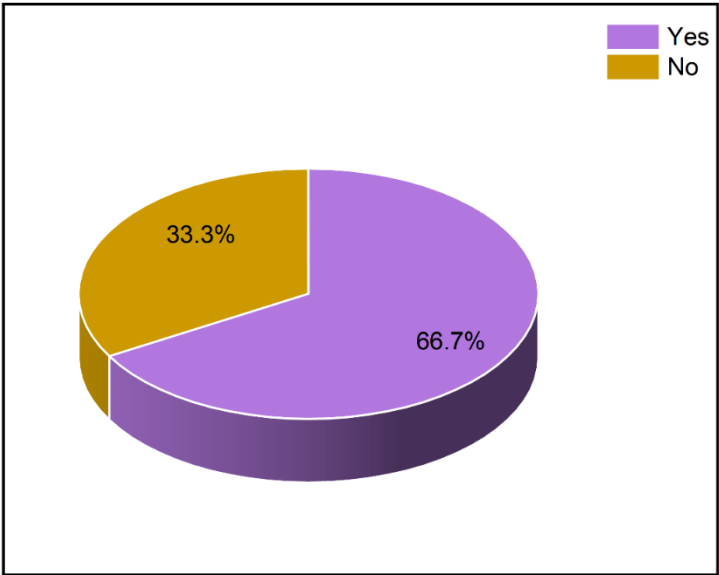


Figure 21: Librarians procedural training.

[Source: Field Survey, 2023]

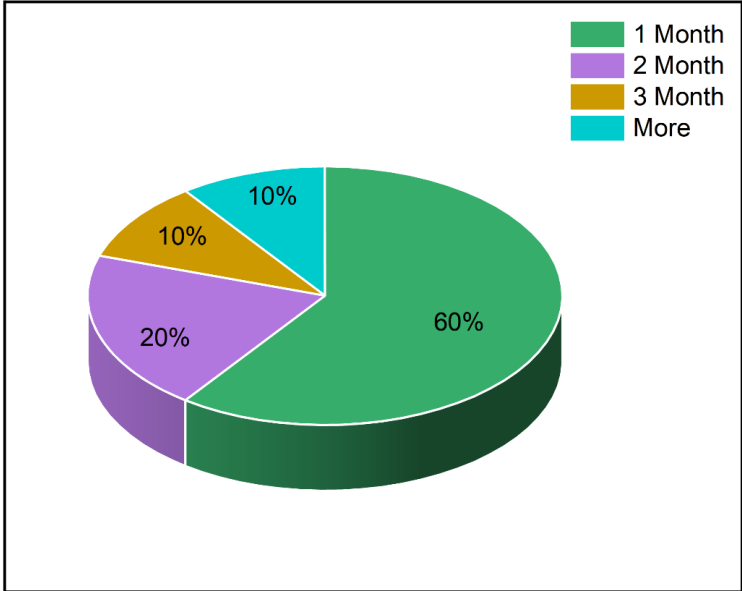


Figure 22: Duration of training received.

[Source: Field Survey, 2023]

Figure 21 illustrates whether or not the individuals working as librarians received any training for improving library procedures. According to the report, twenty (66.7%) of the total respondents had received training, while ten (33.3%) currently lack training opportunities.

Similarly, Figure 22 indicated that 60% of the individuals had received training for a month. Furthermore, the percentages of those who got training for two and three months were 20% and 10%, respectively. However, 10% of the individuals got training for more than three months.

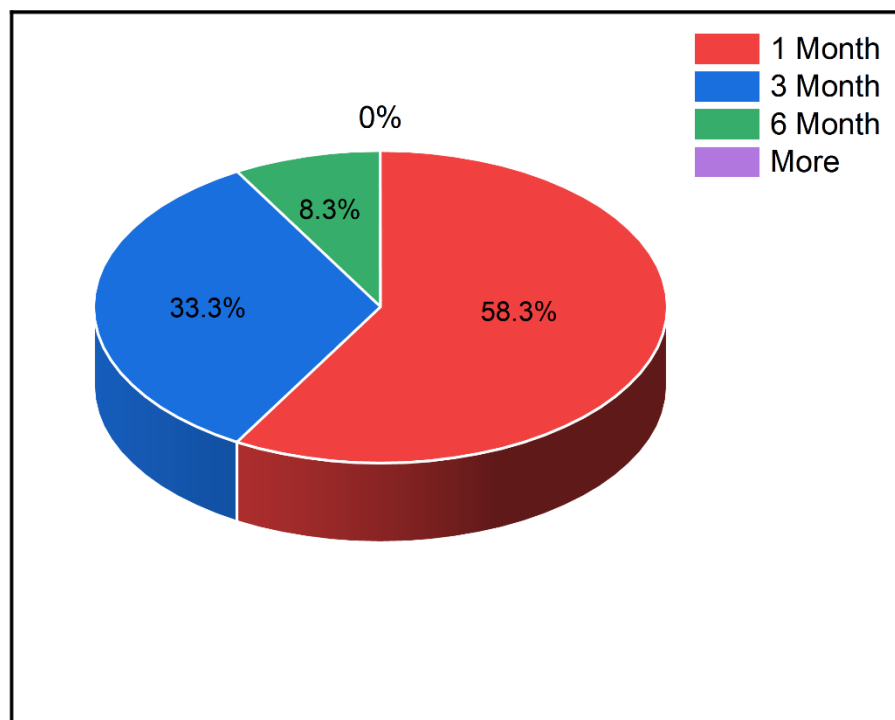


Figure 23: Duration of assistance during outsourcing.

[Source: Field Survey, 2023]

Figure 23 shows how many days the library was supported by outsourced staff. According to our findings, 58.3% of the total assisted for a month. Similarly, the percentages of personnel who aided for three and six months were 33.3% and 8.3%, respectively. However, no personnel aided for more than six months. Libraries



primarily used outsource staff in technology tasks such as network management, system administration, and website development.

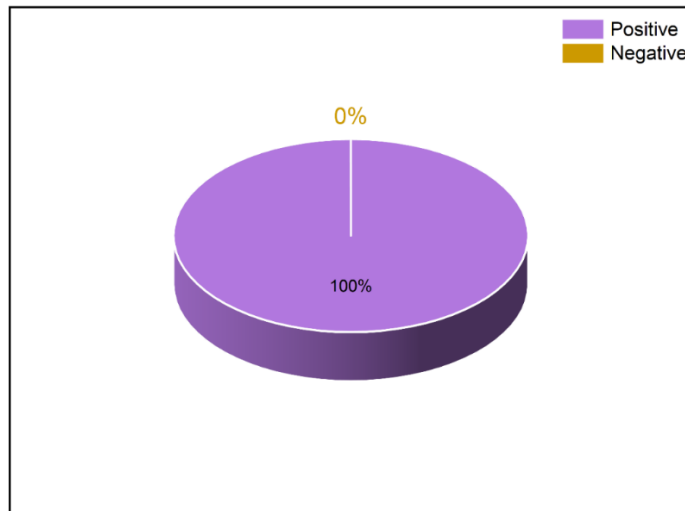


Figure 24: Kinds of feedback from the user.

[Source: Field Survey, 2023]

The replies obtained from library visitors are shown in Figure 24. In our investigation, every participant responded positively. They were very satisfied with the services provided by the library.

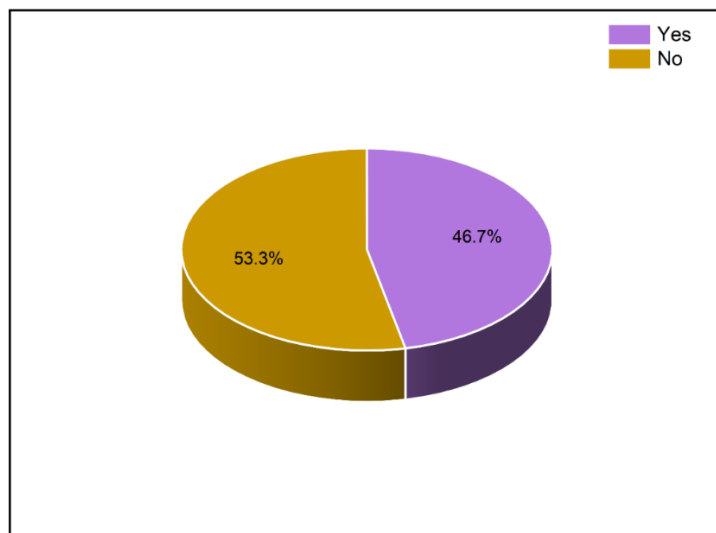


Figure 25: Assessment of service satisfaction for students and teachers' information needs.

[Source: Field Survey, 2023]

We also checked to see if the library's services could meet the needs of both teachers and students. According to our study, 46.7% of respondents from 30 libraries said that their library services could meet the information demands of instructors and students. However, 53.3% of all respondents reported that they were unable to meet teachers' and students' informational demands [Figure 25].

To prepare for a pandemic situation in the future, academic libraries should develop a pandemic preparedness plan, enhance online services and resources, implement remote work policies, promote digital literacy, ensure health and safety measures, and maintain communication with stakeholders. By taking these steps, academic libraries can be better prepared to provide essential services to their users during a pandemic.

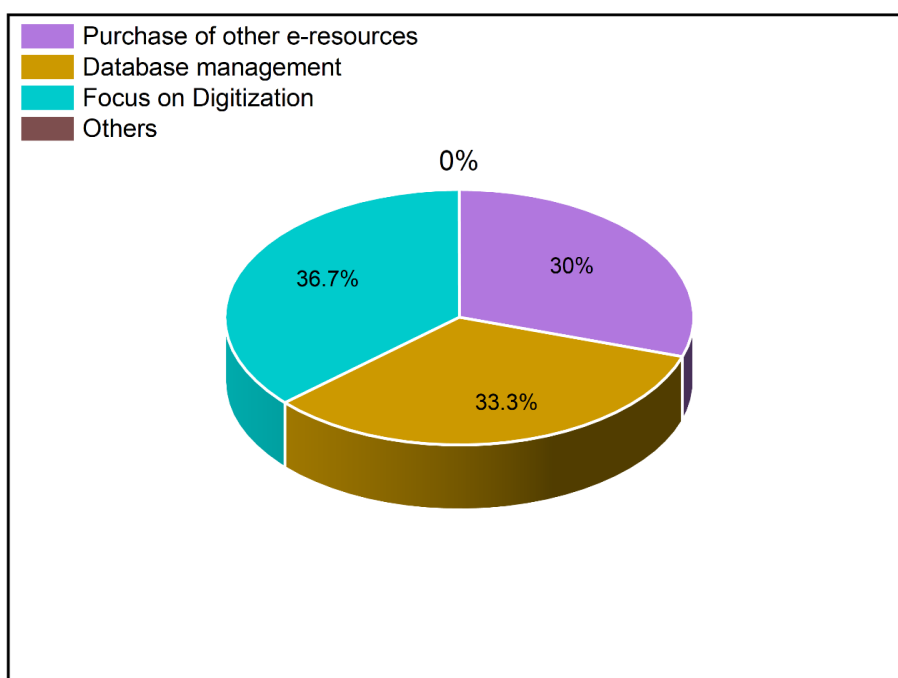


Figure 26: Recent plans for ICT utilization in the library.

[Source: Field Survey, 2023]

Based on the investigation, it appears that libraries are focusing on different plans for the use of ICT in improving library procedures. Figure 26 shows that 36.7% of libraries are focused on digitization, which involves converting physical materials into digital

formats for easier access and preservation. Meanwhile, 33.3% of libraries are focused on database management, which involves organizing and maintaining electronic databases of information resources. Additionally, 30% of libraries are focused on purchasing other e-resources to improve the quality of their collections and services. These plans suggest that libraries are leveraging ICT to improve their operations, services, and resources for the benefit of their users.

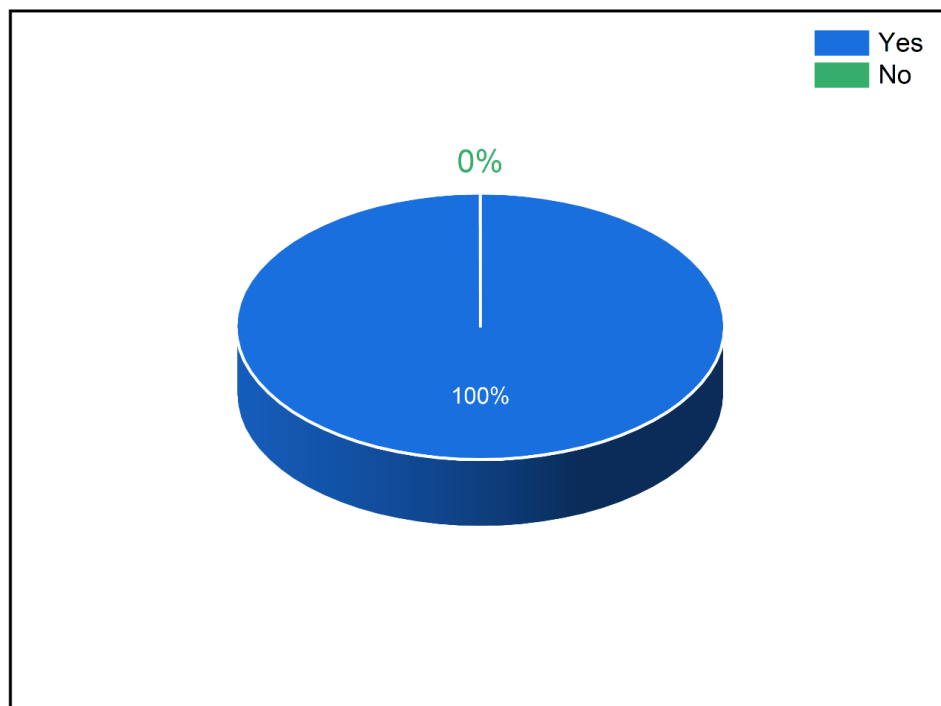


Figure 27: Assessing the potential of plan to aid in the ongoing pandemic.

[Source: Field Survey, 2023]

It was found that the implementation of the above-mentioned plans can help libraries adapt to the challenges of the pandemic and continue to provide essential services and resources to their communities [Figure 27].

## CHAPTER V

### SUMMARY, CONCLUSION, FINDINGS, AND RECOMMENDATIONS

#### 5.1 Summary

The investigation conducted in Kathmandu district found that the majority of libraries remained closed during the COVID-19 pandemic, highlighting the significant impact of the pandemic on access to information and education. While 11 out of the 30 libraries in Kathmandu district remained open during the pandemic, only a small percentage of them were fully operational. The study emphasized the difficulties faced by libraries during the pandemic and the need for policymakers and stakeholders to address these challenges and work towards ensuring that essential library services can continue to be provided to the public.

The investigation found that most libraries operate physically, with only a minority providing digital access. Additionally, less than half of libraries had implemented library circulation capabilities, and even fewer were involved in selecting and acquiring resources. These findings highlight the need for libraries to consider new technologies and ways of providing services to their patrons.

Regarding the establishment of digital services by libraries after the COVID-19 pandemic, the study found that a majority of libraries engage in in-house activities, while only a small percentage of them participate in outreach initiatives. Koha library management software was the most used software by libraries, and only 40% of the libraries had their own digitization. The study also found that 60% of the libraries surveyed have their own database management system for online information management, while 40% do not.

The investigation revealed that most respondents were aware of outreach services and used them, while some did not know what outreach services are. A majority of respondents used ICT for outreach services, with Gmail, Zoom, and Facebook being the most used platforms. Furthermore, the study found that a significant percentage of respondents continued to use ICT even after the pandemic.

The investigation found that libraries utilized their own organizational staff or outsourced staff for digital management, with some respondents preferring outsourcing to individuals with technical expertise. Most of the respondents had received training to improve library procedures. Outsourced staff helped with varying durations, primarily in technology tasks such as network management, system administration, and website development.

Finally, the investigation found that while participants were generally satisfied with the services provided by the library, only a small percentage of them felt that the library's services could meet the information demands of both instructors and students. This suggests that there is room for improvement in the library's offerings, and further research and feedback gathering may be necessary to identify areas for improvement.

In conclusion, academic libraries should develop a pandemic preparedness plan, enhance online services and resources, implement remote work policies, promote digital literacy, ensure health and safety measures, and maintain communication with stakeholders to prepare for a pandemic situation in the future. By taking these steps, academic libraries can be better prepared to provide essential services to their users during a pandemic.

## **5.2 Conclusion**

In conclusion, the investigation in Kathmandu district underscores the profound impact of the COVID-19 pandemic on libraries, highlighting the need for policymakers and stakeholders to address the challenges faced by these institutions. The study emphasizes the necessity for libraries to embrace digital technologies and modernize their services to adapt to the evolving landscape. While outreach services and digital platforms played a crucial role during the pandemic, there remains room for improvement in meeting information demands. Academic libraries should proactively develop pandemic preparedness plans, enhance online resources, promote digital literacy, and maintain communication with stakeholders to better prepare for future crises and continue serving as vital sources of information and education for their communities.

### **5.3 Findings**

The study found that only a small percentage of libraries remained open during the pandemic, and most were closed for an extended period. The majority of libraries used physical services, with only a few offering digital services to their patrons. The study also revealed that a significant number of libraries did not have their own digitization, and only a few had established outreach initiatives. Furthermore, a considerable percentage of libraries used software other than the commonly used library management tools such as Koha, Soul, and DSpace. On the other hand, the study found that a significant number of libraries have established their database management system for online information management, and most maintained and updated papers and journals.

In conclusion, the investigation into libraries in Kathmandu during the COVID-19 pandemic highlights the significant impact of the pandemic on access to information and education. The majority of libraries were closed for extended periods, and even those that remained open were only partially operational. The study found that there is a need for libraries to consider new technologies and ways of providing services to their patrons, especially in terms of digital services.

While respondents were generally satisfied with the services provided by the library, there is room for improvement in meeting the information demands of both instructors and students. To prepare for a pandemic situation in the future, academic libraries should develop a pandemic preparedness plan, enhance online services and resources, implement remote work policies, promote digital literacy, ensure health and safety measures, and maintain communication with stakeholders.

It is important for policymakers and stakeholders to address the challenges faced by libraries during the pandemic and work towards ensuring that essential library services can continue to be provided to the public. By taking these steps, academic libraries can be better prepared to provide essential services to their users during a pandemic and ensure that access to information and education is not interrupted in times of crisis.

### **5.3 Recommendations**

Based on the findings of the investigation, the following recommendations are suggested:

1. Policymakers and stakeholders should prioritize the reopening of libraries and ensure that essential services are provided to the public, especially during pandemics or other emergency situations.
2. Libraries should consider new technologies and ways of providing services to their patrons, such as digitalization and e-resource management services, to improve their accessibility and outreach.
3. Libraries should establish a database management system for online information management and regularly update their resources, including papers, journals, theses, dissertations, images, and videos.
4. Libraries should develop a pandemic preparedness plan, including measures to enhance online services and resources, implement remote work policies, promote digital literacy, ensure health and safety measures, and maintain communication with stakeholders.
5. Libraries should provide training to staff and personnel to improve library procedures and digitalization skills. Outsourced staff may also be utilized for technology tasks, such as network management, system administration, and website development.
6. Libraries should gather feedback from users regularly to identify areas for improvement and ensure that their services meet the information demands of both instructors and students.

By implementing these recommendations, libraries can better serve their users and ensure that they have access to essential services, even during pandemics or other emergency situations.

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3. What was the main reason that the library was not able to continue its services?
  - a) Lockdown ( )
  - b) lack of internal management ( )
  - c) Lacking in ICT ( )
  - d) If others .....
  
4. If the library was opened, how it was open?
  - a) Full ( )
  - b) Partial ( )
  
5. Which channel was used to provide service after the library was reopened?
  - a) Physical ( )
  - b) Digital ( )
  
6. If, the library is reopened physically, how does the library have started its services?
  - c) Circulation ( )
  - d) Acquisition ( )
  - d) Selection ( )
  - d) If any other.....
  
7. If it has been given a digital service, how to service has been started?
  - a) In house activities ( )
  - b) Outreach program ( )
  
8. If it is in-house services, how the service has been started?
  - a) Library automation ( )
  - b) Digitization ( )
  - c) e-resource management ( )
  - d) Maintenance ( )
  
9. If you used library management software in your library, which software is used?
  - a) Koha ( )
  - b) Soul ( )
  - c) Dspace ( )
  - d) If others.....
  
10. Library has compiled its own digitization of its collections.
  - a) Yes ( )
  - b) No ( )
  
11. If yes, how did the library perform this procedure by itself?





**APPENDIX - II**  
**CURRICULUM VITAE**

Personal Information

Name : Nirmala Adhikari  
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Academic Qualification

Degree	Major	Institution/University/Board	Year
MLIS	Library & Information Science	Tribhuvan University Kritipur, Nepal	2023
B. Ed.	English	Mahendra Ratna Multiple Campus- Ilam, Tribhuvan University, Nepal	2017
I.A	English	Mahendra Ratna Multiple Campus- Ilam, Tribhuvan University, Nepal	2012
S.L.C.	Environment Science	Ilam Vidya Mandir, Ilam, Nepal, SLC Board	2010



Table1: Correspondence between research questions and questionnaire items for library impact study in Kathmandu district

<b>Research questions</b>	<b>Matching question(s) in the questionnaire</b>
a) To what extent did the COVID-19 pandemic impact library operations, and how long were libraries closed during this period?	Question 1 Question 2
b) What were the main reasons why libraries were unable to continue their services during the pandemic, and how did these reasons vary across different library settings?	Question 3
c) How did libraries approach the reopening process, and to what extent were services resumed fully or partially?	Question 4
d) What channels were utilized by libraries to provide services after reopening, and what were the perceived effectiveness of in-house activities versus outreach programs?	Question 5, Question 6, Question 7, Question 8
e) What library management software solutions were used, and to what extent were digitization efforts undertaken to adapt to the changing circumstances?	Question 9, Question 10, Question 14
f) How satisfied were library users with the services provided during and after the pandemic, and to what extent were their information needs fulfilled?	Question 25, Question 26, Question 27

This table provides a clear, detailed, and systematic matching of my research questions to the corresponding questions in the questionnaire.