

Role of Electronic Resources (e-Resources) in Research amidst COVID-19 Pandemic: An Analysis in the Context of Assam

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Abstract: The sudden outbreak of the COVID-19 pandemic has led to certain circumstances that affected the normal lives of the people. The only alternative left to stop the spread was to impose nationwide lockdown. Like other spheres of life, this pandemic has also brought changes to the teaching learning process. A radical transformation was seen from offline mode of teaching to online mode; both the teachers and the students have been facing problems adapting to the new change. Besides psychological trauma, researchers had to face other problems due to the sudden lockdown of the country. They could not access the library service which plays a very crucial role in any successful research work. Researchers from Assam have also been facing difficulties in their research work. However, it seems that various e-resources appeared to be of great help for the researchers. This paper is an endeavour to understand the role of e-resources in research work in Assam during the crisis.

Keywords: e-resource, COVID19, research, Assam, ICT

Introduction

The main impetus behind research is to enhance knowledge and comprehend numerous issues in a society and collection of data is indispensable for it. Earlier, researchers have depended on the non-digital formats of research data to a great extent. However, with the advent of Information and Communication Technology (ICT), electronic resources (e-resources) came to appear as a predominant element in research. Unlike the non-digital sources of data, e-resources are the materials or data in digital formats obtainable electronically like electronic journals (e-journal), electronic books (e-book), online newspaper etc. Its prevalence has been gaining momentum since the outbreak of the COVID-19 pandemic. Despite e-resources, many subject matters of research in social sciences still rely on non-digital data but this global crisis has restricted the access to it. Consequently, e-resources have seemed to be an important source of research data during the pandemic. Therefore, it is imperative to grasp whether it is serving the main purpose of research during the crisis.

In this backdrop, the paper is an endeavour to locate the status of e-resources in research during the COVID-19 pandemic. It is restricted to the research in social sciences. The content of the paper is divided into five parts. The first part states the research objective and methodology. The second part addresses the meaning of e-resources. The third part discusses the status of e-resources in research. Finally, the fourth part examines the role of e-resources in research during the crisis and presents the findings of the study.

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Objective

The objective of this paper is to study and examine the contribution and role of e-resources in research during the COVID-19 pandemic in Assam.

Methodology

The study is descriptive and mainly based on primary data. The questionnaire method is used to collect primary data and a structured questionnaire is prepared for that purpose. The responses and comments are collected from one hundred research scholars of different branches of Humanities and Social Sciences who are currently pursuing their research in Gauhati University, Assam. The research scholars are randomly selected.

Concept of E-Resource

The traditional teaching learning process has been changing since the development of information and communication technology (ICT) and increased use of internet services. The process is no more confined within the four walls of classroom. In this present era, this process has a much wider meaning. The use of ICT cannot be ignored or avoided further. Its use has created multiple choices for learners in the field of education. It has been considered that e-Learning has the potential to transform people, knowledge, skills and performance. It plays a significant role in the field of higher education. One of the most important tools of the e-learning process is e-resources or e-materials. E-resources have made e-learning a much easier process. (Arkorful&Abaidoo, 2014).

When information is demonstrated in electronic form it is called e-resources. According to Anglo American Cataloguing Rules 2 (AACR2), an e-resource is “Material (data and/or program(s)) encoded for manipulation by a computerized device. This material may require the use of a peripheral directly connected to a computerized device (e.g., CD-ROM drive) or a connection to a computer network (e.g., the Internet)”. According to International Federation of Library Associations and Institutions (IFLA), electronic resources are “those materials that require computer access, whether through a personal computer, mainframe, or handheld mobile device. They may either be accessed remotely via the Internet or locally”. E-resources can be found in various forms like e-books, digital libraries, online journal magazine, e-learning tutors, indexing and abstracting databases, on line test, full text databases, e-journals, image collections, multimedia in the form of CD, tape, internet, web technology, etc. E-resources also include e-journals, e-discussions, e-news, data archives, e-mail on line chatting, reference database (biographies, dictionaries, directories, encyclopaedias, etc.), numeric and statistical databases, e-images, etc. (Thanuskodi, 2012; Dayakar, 2018). Hence, E-resources are resources which need a device access like computer or mobile or any ICT system and a computer network that provide the data in digital form.

E-Resources and Research

E-resources have been playing an important role in the field of research. Unlike the print resources, it has the capacity to provide access to unlimited number of materials beyond any geographical barriers. Its ability to cover a vast magnitude of information has made e-

resources an essential element when it comes to research. Furthermore, the emergence and growth of ICT has made it easily accessible by the researchers.

The development of information in electronic format began with the invention of the computer in 1950s and the first database was generated in early 1960s. The launch of internet has made the electronic data ubiquitous. These developments have provided the researchers with a feasible alternative of print resources. The growing exigencies of e-resources in research have brought a setback to the conventional way of gathering information. The traditional nature of research has been transforming into a digital one since the proliferation of ICT. In the contemporary times, libraries of every university and research institute do have the access to the digital form of their resources including archives. (Thanuskodi, 2020). The provision of open access to research theses and dissertations has facilitated research to a great extent. In India, Shodhganga and Shodgangotri are such repositories of theses, dissertations and synopses.

E-resources are serving as a facilitator in research. However, it is not devoid of any impediments. Though feasible, researchers are required to be cautious of the credibility of the available information. Globalization and information explosion has further complicated the task. Besides, all e-resources are not free of charge and accessible openly. Many e-journals and e-books can be accessed only through subscription. Absence of cost-effectiveness in certain cases prompts the researchers to access the pirated version of e-resources and it is quite inimical to the research ethics. The contribution of e-resources has enhanced the quality and quantity of research. However, it is not independent of loopholes and it depends on the researchers how to make the most out of it in a positive way.

Studies have found that there are challenges in using e-resources. Such challenges can be felt at every level of their selection, acquisition, preservation, maintenance and management. But such resources have many positive sides too. E-resources provide solution to many problems such as problems related with storage of resources, portability, accessibility etc. Apart from keeping researchers up-to-date and saving their valuable time, e-resources help researchers in continuing their research activities. They can access e-resources from any part of the world. (Dayakar, 2018). Dayakar has rightly pointed out that, “these resources have also come with many advantages giving solution to many professional problems like solution to space problem, providing remote access, convenience in use, increased readership with improved services, leading to more opportunities for productive research output and academic excellence within short time”. In the present times, researchers are highly dependent on the e-resources owing to the outbreak of the COVID-19 pandemic. This makes it crucial to analyse the role of e-resources during the crisis.

Role of E-Resources during COVID-19 Pandemic in Research

The normal lives of people have changed in a significant way due to the spread of Novel Corona Virus and the outbreak of COVID-19 pandemic. This pandemic has created such a situation that people are forced to stay within their homes and such a situation has brought a lot of changes to every sphere of people's lives. In every part of the world societies have to follow a new kind of lifestyle. The educational sector of a country, like others, has been facing tremendous challenges due to the circumstances created by this pandemic. Apart from

other learners, researchers have also been facing many problems due to such situation. As the normal lifestyle was hampered, researchers could not continue their research the way they used to do before the outbreak of this pandemic. Therefore, they have to search for alternative ways to continue their research work and e-resources seemed to be that alternative way. E-resources have been an important source of data prior to the global crisis. However, its indispensability has been specifically felt in this period. The following part of the paper presents the findings of the study and analyzes the contribution of e-resources in research amidst the crisis in the context of Assam.

Findings of the Study

The COVID-19, a contagious virus, was first discovered in China towards the end of 2019. The virus was spreading very rapidly all over the globe by the beginning of 2020. The only way to stop its spread was to break the human chain. The World Health Organisation (WHO) had declared it as a global pandemic. The countries across the globe had announced complete lockdown to stop the spread of this virus. In India, the complete lockdown was declared on 24th of March 2020. Consequently, everything was shut down starting from government offices to private offices, schools, colleges and transport and communication. The economy of the country was hit very hard. The social lives of people came to a standstill and the educational sector also received a setback. As all forms of educational institutions were closed, online classes became the order of the day.

This study is an attempt to analyze the role of e-resources in doing research during the COVID times in Assam. A structured questionnaire was framed to serve the purpose. The first question was set to understand the level of awareness regarding e-resources among the research scholars of the concerned area of the study. The study reveals that almost every scholar was aware of e-resources. The second question was set with the objective to find out how many of them use e-resources for their research work. It shows that 97 percent of the total respondents have used e-resources for their research work; while 3% of the respondents responded that they have not used it.

The third question was set to understand how frequently e-resources are used by the research scholars. It was a multiple choice question with four choices- i.e. (i) Daily, (ii) 3-4 days a week, (iii) Weekly and (iv) Monthly. Regarding the frequency of using e-resources, the study discloses that 20 percent of the respondents use e-resources daily, 60 percent of the respondents use e-resources 3 to 4 days a week, and 18 percent of them use it weekly and 2% of them uses e-resources on monthly intervals. Therefore, it can be said that 80 percent of the respondents use e-resources very frequently. Figure 1 indicates the findings in the form of a pie chart.

The fourth question was framed to find out the most used websites or webpages by the scholars in Assam. The study shows that the most used websites/webpages in Assam are- Google Scholar, Academia, Jstor, Economic and Political Weekly (EPW) and Researchgate and other such websites. 26 percent of the respondents use Academia website, while JSTOR is used by 40 percent of the respondents. EPW, Researchgate and Google Scholar is used by 13 percent, 11 percent and 6 percent of the respondents respectively and 4 percent of the

students use other such websites like the SAGE publications, Routledge publications, Taylor & Francis etc. Figure 2 presents the findings of the study.

FIGURE 1: Frequency of using e-resources by the Research Scholars

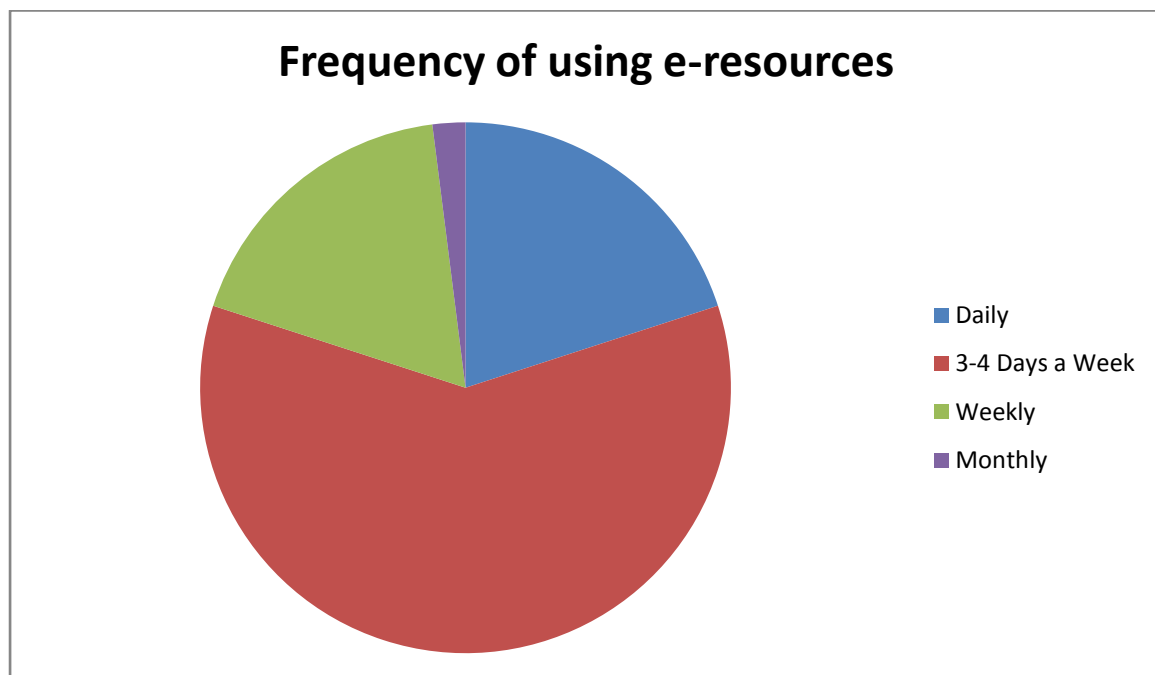


FIGURE 2: websites/ webpages used by the research scholars

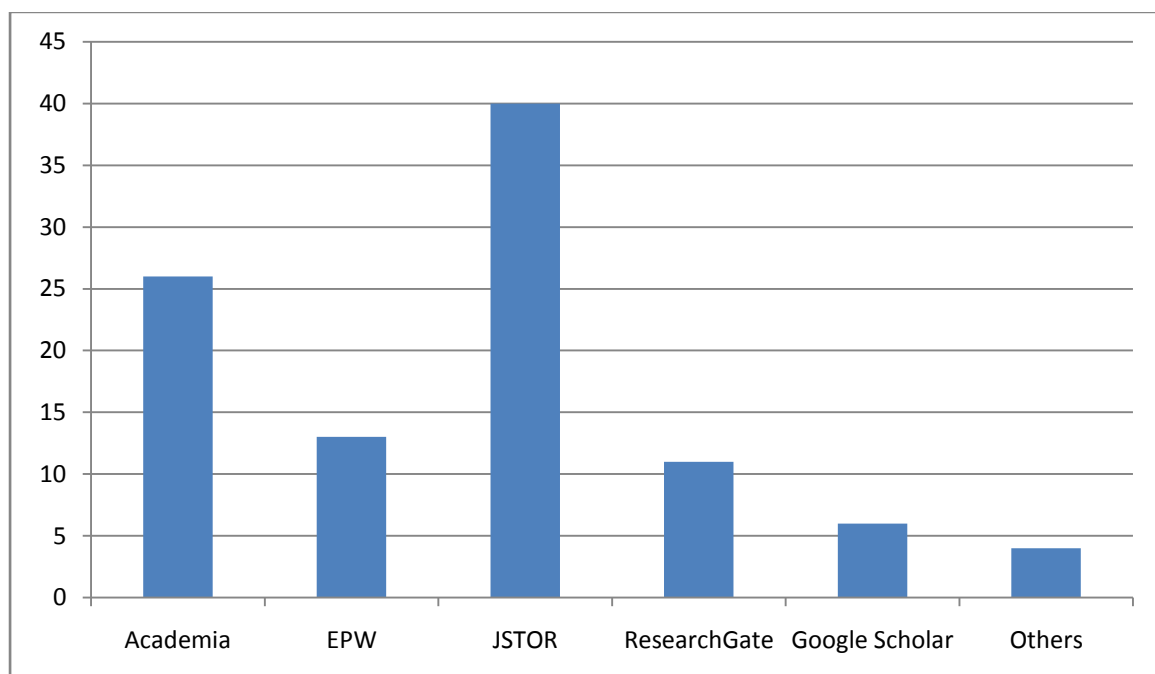


Table1: The Positive Outcomes or Benefits of E-Resources

Positive Outcomes	Number of Students
Remote Access	34
Mobility	8
Easy Digital Storage	28
Less Time Consuming	16
Cost effective due to Institutional subscription	14

Another question was inserted to understand the positive outcomes of using e-resources. The above table presents the findings of the study. It reveals that 34 percent of the respondents identified Remote Access as a significant benefit of e-resources as these resources can be accessed from any part of the world. Mobility or portability is regarded as a benefit by 8 percent of the respondents, 28 percent responded easy digital storage to be the benefit of using e-resources, 16 percent responded less time consuming as a benefit and 14 percent considered e-resources to be cost effective if they access the e-resources from the university library. The university library has got subscription to a number of costly websites and scholars can have access to those free of cost.

TABLE 2: Hindrances in Accessing the E-Resources

Hindrances In Accessing The E-Resources	Number of Students
Poor Network Connectivity	44
Costly Subscription Charges by some Journals	36
Data Credibility	20

The above table presents the findings regarding the hindrances in accessing the e-resources. The study discloses that poor connectivity is a major hindrance. Moreover, the scholars could not access the library during the crisis and costly subscription charges by some e-journals and others proved to be a hindrance. Lastly, certain scholars responded that data credibility is also an issue during the crisis period.

The objective of the seventh question was to find out the frequency of using the e-resources during the lockdown period. The study shows that 72 percent of the respondents have used the e-resources more than before the lockdown period. 20 percent have used the e-resources same as before and 8 percent less than before. Figure 3 presents the findings of the study. The responses to the eighth question disclose that e-resources are cost-effective to a large extent. Furthermore, the responses to the ninth question reveal that e-resources were largely helpful for the research during the crisis in Assam. Figure 4 and 5 present the findings of the study respectively.

Figure 3: Frequency of use during the Crisis

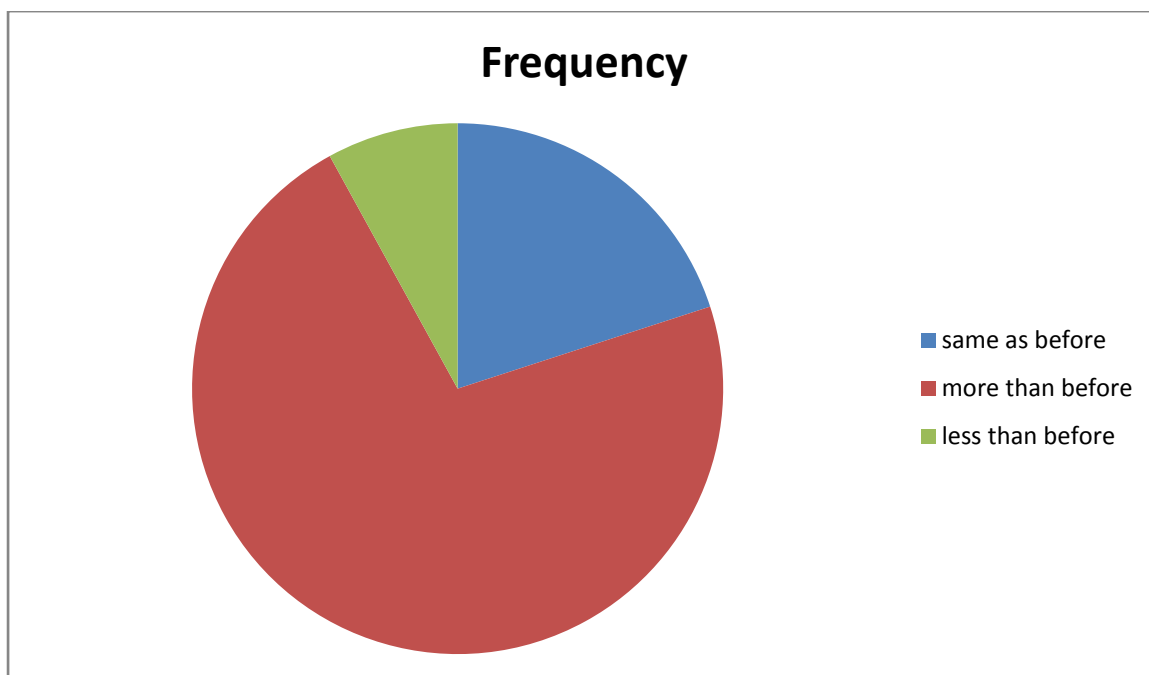


Figure 4: Cost-effectiveness of E-Resources

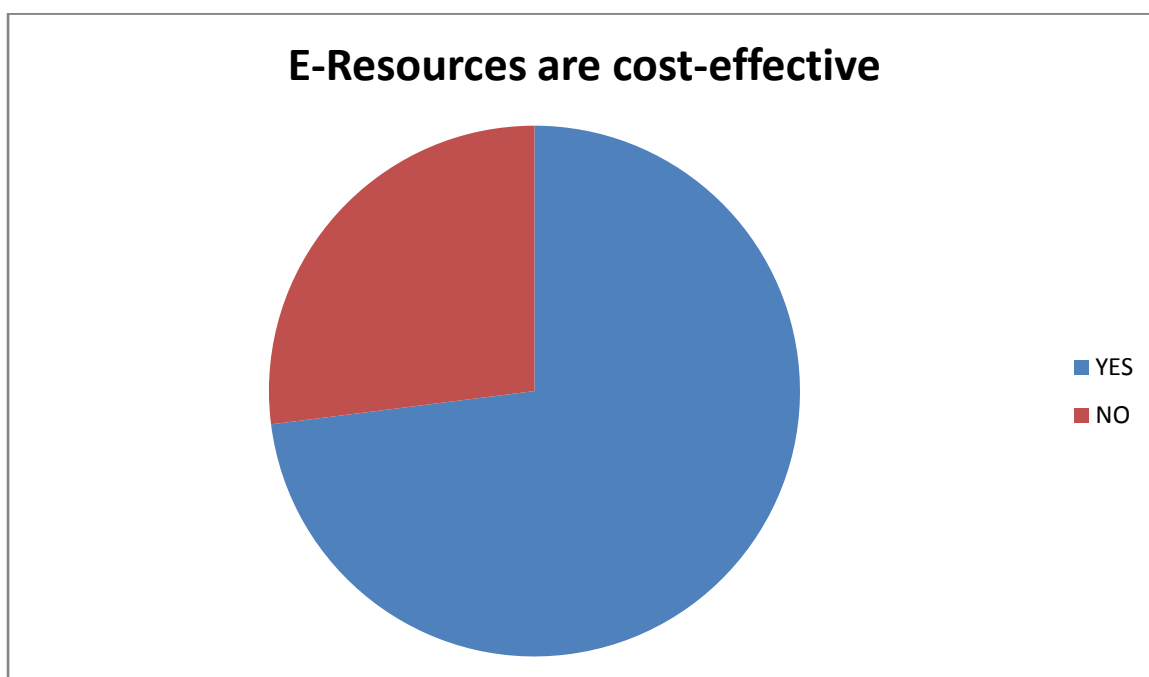


Figure 5: Contribution of E-Resources during the Crisis

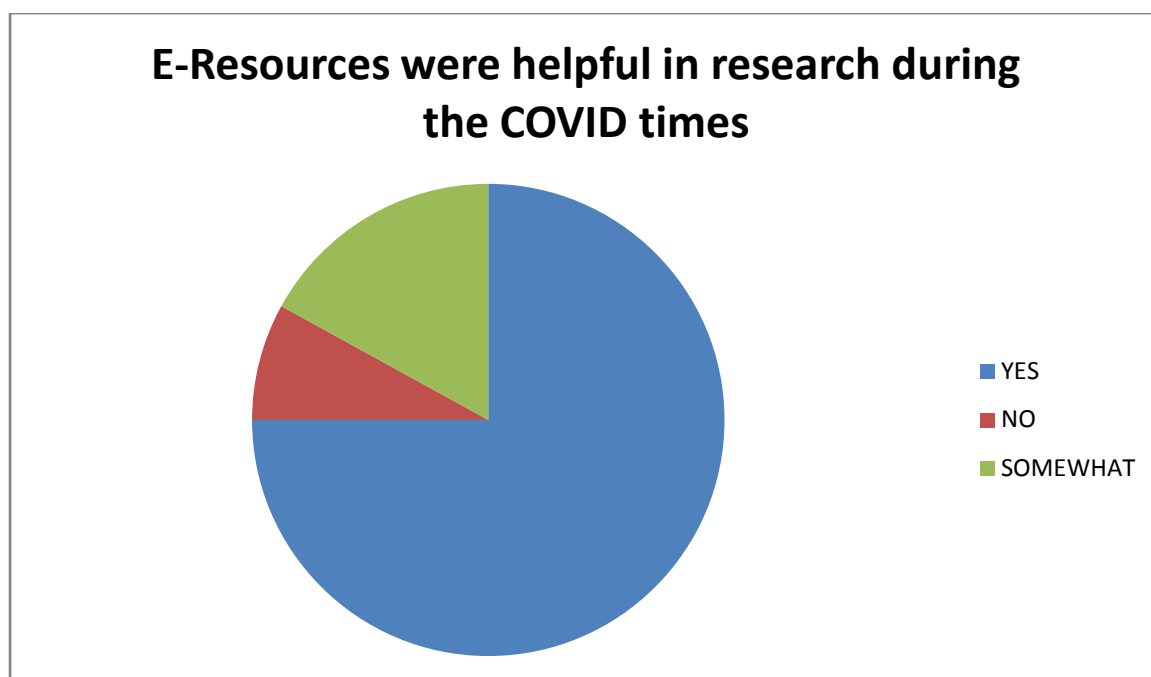


Table: 3 Significance of E-Resources during the pandemic

Significance of E-Resources during the COVID-19 times	Number of Students
Sole alternative available at the time of pandemic	30
Accessibility	26
Less time consuming	23
Cheap	12
Easy Storage	9

From the above table, it is crystal clear that e-resources were of great help during the pandemic. 30 percent of the researchers considered e-resources as the only possible alternative during the lockdown. 26 percent of the respondents viewed the significance of e-resources to be its accessibility. E-resources can be accessed from form anywhere and as the educational institutions were closed the researchers were able to access their required study materials even from their homes. 23 percent research scholars commented that searching for e-resources is less time consuming as they don't need to roam around libraries or book shops. The e-resources can be accessed simply by searching for it in the internet; it is just a matter of seconds. 12 percent of the researchers considered e-resources as a cheap option as a large number of websites were giving access to their materials free of cost because of the pandemic. 9 percent respondents considered the significance of e-resources to be its storage facility. E-resources can be stored in laptops and mobiles and it does not require physical space like books and other print materials.

Conclusion

The whole world came to a halt with the outbreak of COVID-19 pandemic. One of worst affected sectors was the educational sector. The researchers had to bear a lot of trouble in accessing the print resources as universities and libraries were closed. Therefore, e-resources came to occupy its status as a substitute of it. A study was conducted among the research scholars of Gauhati University to understand the significance of e-resources in research throughout the lockdown. It revealed that e-resources have been greatly facilitating the research work of the scholars. There is a rise in the use of e-resources among the researchers throughout this pandemic. Despite its hindrances, e-resources have been contributing to a large extent in the research work in Assam and serving the main purpose of research in the course of the crisis.

References

- [1]. Alenezi, A. (2020). The Role of e-Learning Materials in Enhancing Teaching and Learning Behaviors. *International Journal of Information and Education Technology*, 10(1).
- [2]. Ali, W. (2020). Online and Remote Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. *Higher Education Studies*, 10(3).
- [3]. Arkorful, V. & Abaidoo, N. (2014). The role of e-learning, the advantages and disadvantages of its adoption in Higher Education. *International Journal of Education and Research*, 2(12).
- [4]. Dayakar, G. (2018). Use of e-resources in higher education: Advantages and concerns. *Journal of Applied and Advanced Research*. Retrieved from <https://dx.doi.org/10.21839/jaar.2018.v3S1.160>
- [5]. Johnson, Sharon., Evensen, Ole Gunnar., Gelfand, Julia., Lammers, Glenda., Sipe, Lynn., & Zilper, Nadia. (2012). *Key Issues for e-Resource Collection Development: A Guide for Libraries*. International Federation of Library Associations and Institution.
- [6]. Kavithanjali, J. (2019). E – Resources: Their Importance, Types, Issues and Challenges: An Analysis. *International Journal of Research and Analytical Reviews*, 6(1).
- [7]. Odili, N et al. (2020). Online Resources for E-Learning in Educational Institutions: A Case of COVID-19 Era. *International Journal of Research and Review*, 7(10).
- [8]. Thanuskodi, S. (2012). Use of E-resources by the Students and Researchers of Faculty of Arts, Annamalai University. *International Journal of Library Science*.
- [9]. Thanuskodi, S. (2020). Use of Digital Resources Among Social Scientists: An Evaluative Study. In S. Thanuskodi (Ed), *Challenges and Opportunities of Open Educational Resources Management*. Information Science Reference.
- [10]. Tillett, Barbara B. (2002). *AACR2's Updates for Electronic Resources Response of a Multinational Cataloguing Code: A Case Study*.
- [11]. UmmeHabiba, U. & Chowdhury, S. (2012). Use of Electronic Resources and its Impact: A Study of Dhaka University Library Users. *The Eastern Librarian*, 23(1).