iJRASET
International Journal For Research in Applied Science and Engineering Technology

# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

**Volume:** 9 **Issue:** X **Month of publication:** October 2021

**DOI:** https://doi.org/10.22214/ijraset.2021.38672

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)
*ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.429*
*Volume 9 Issue X Oct 2021- Available at www.ijraset.com*

# Performance Analysis of Information & Communication Technology in Library and Information Science

Mrs. Marthamma D.Y
*Karnataka State Rular Devlopment And Panchayat Raj University Gadag*

***Abstract:*** ***There is no doubt that the integration of ICT in the provision of library services can bring great benefits to the entire community and the nation. ICTs, which continue to be a support tool for the provision of up-to-date and timely information and library services, are also essential for sustainable development .This paper is an attempt to examine the critical role that information and communication technology (ICT). How it plays important role in the management and delivery of library services in sustainable development. Despite the wide range of opportunities offered by the advent of ICT, it has been observed that the application of ICT to library services appears inadequate, probably due to several challenges. Using the simple literature search methodology, the paper sought to review the related literature on ICT resources and ICT-based services in libraries, the benefits of ICT and the role of libraries in sustainable development. The document also identified the challenges of using ICT in libraries. Among other things, it was recommended to improve the capacity and level of adoption of ICT by libraries.***
***Keywords: Information and Communication Technology (ICT), Libraries, Sustainable Development, ICT-based library services***

## I. INTRODUCTION

To achieve sustainable development in a globalized world, timely information is required that leads to correct decision-making and flows towards certain measures. It is necessary to bridge the digital divide so that citizens have easy access to information.

Information and communication technology (ICT) continues to be a catalyst on the issue of national progress and development. Information as power is effectively an infinite resource and an important tool necessary for the development of all sectors in each nation. Therefore, it is imperative that library use contributes greatly to meeting the information needs of citizens. It is worth noting that the arrival of ICT has had a significant impact on the quality of information provided by libraries. It also allows the orderly and adequate provision of library services to library users of all disciplines.

In the 21st century, the drastic role that ICT plays in the functioning of libraries cannot be underestimated. Many library routines and operations that were originally performed manually are now being turned into computerized operations, that is, applications of ICT techniques to provide better and faster services to end users.

A nation without functioning libraries and information centers may not have access to information that would enable its sustainable development. In this age of globalization, in which the world is interconnected, information gains its power through persistent storage and widespread dissemination that could be achieved through ICT. According to Janakiraman and Subramaniah (2015), the world is now experiencing a digital scenario in which ICTs have changed the possibilities of professional librarian advancement and changed the expected librarian performance.

CT is a general term that refers to the technologies used to collect, store, manipulate and communicate information in various formats (Raji, 2018). The use of ICT improves access to digital information, reduces the digital divide and also improves the standard of living.

The introduction of ICT in libraries is a way to improve the information services offered in libraries. This is an era where people need easy access to up-to-date information and this can only be achieved through the use of ICT in library services. It is also a way to contribute to the sustainable development of the country, since the timely and effective provision of useful information can help build a society.

ICT as a support tool, help libraries to provide the necessary information for the development of different sectors of the country. Libraries play a very important role in facilitating access to global information and knowledge resources using ICT.

©IJRASET: All Rights are Reserved

## II. THE ROLE OF LIBRARY FOR SUSTAINABLE DEVELOPMENT

Information is an important tool for development and no nation can experience sustainable development without a continuous flow of relevant information. Libraries are primarily concerned with the acquisition, organization, dissemination, and preservation of information for the purpose of educating and educating citizens. The development of a nation depends on the provision of relevant, adequate and timely information on education, security, health, etc. Access to this information is provided in various formats through the libraries. The library is a place where knowledge is created and shared. It is a repository in which knowledge is stored in various formats, whether printed or electronic. There are different types of libraries, including academic libraries, school libraries, public libraries, national libraries, and specialized libraries. The library, regardless of its type, fulfills different roles. The primary function of the library is to provide information services to support the educational, recreational, cultural, economic, and technological efforts of members in their respective communities. There is no doubt that the library is one of the organizations that can help the country achieve and sustain development. Nor can the library meet this obligation if it continues to rely on traditional methods of disseminating information. Therefore, libraries must use reliable and potential tools such as the Internet and other information and communication technologies (ICT) to support economic, social and political sustainability.
sustainable development as development for the present and the future. It is the process of ensuring that current developments are maintained and will be maintained in the future. Sustainable development focuses on the need to build the nation for the future by improving the lives of its citizens for the future.

## III. ADVANTAGES OF ICT

ICT-driven globalization is having phenomenal effects on library practice. ICTs are important and useful tools for sustainable development in all areas and all aspects of our society. ICTs provide a means to achieve development goals in areas such as education, health, agriculture, the economy, and trade. According to Olise (2010), the introduction of ICT in education had led to the computerization of traditional materials such as books, magazines, newspapers and other information resources in the library. This has also led to the existence of a virtual library. Educational researchers can easily access up-to-date literature through the use of ICT. ICTs also foster collaboration between researchers regardless of their location.

The Internet provides up-to-date information on all topics. Previous research results can also be easily accessed via the Internet. In agriculture, ICTs are used to provide farmers with information about their crops and animals, which will ultimately increase their productivity.

*1)* It helps in quick and easy access to information.
*2)* Providing remote and round the clock access to users.
*3)* Providing unlimited access to information from various sources.
*4)* ICT makes library operations easier, faster, cheaper and more efficient.
*5)* ICTs help manage information overload, as information retrieval is facilitated in information systems.
*6)* Computerization helps the library to save space and reduce paper

## IV. HOW ICT USED FOR SUSTAINABLE DEVLOPMENT

ICTs such as computers, telecommunications equipment, multidimensional resources and other related technologies are deployed and used throughout the information management and dissemination process. The various components of ICT have created a facelift to support various professional services. ICT resources are paramount to effective delivery of library services. The ICT resources include Computer, internet, electronic mail, world wide web,video conferencing [enables people at different locations to hold conferences by data communication network.] ,

1) *Printing Technology:* Converted computer output into printed image
2) *Online Public Access Catalogue (OPAC):* the library catalog computerized way to access informational materials in the library. It is an online database of materials held by a library or group of libraries. It is a computerized library catalog that is made available to the public. Most OPACs are accessible to users around the world via the Internet.

These are various resources of information and communication technology used for sustainable development

©IJRASET: All Rights are Reserved

## V. CHALLENGES USING ICT IN LIBRARY SERVICES

The use of Information and Communication Technologies (ICTs) in libraries, there are many challenges. These include:

1) *Lack of Technical IT Knowledge by library Staff:* It is hard core truth that even in 21st century there are still various institutes where staff don't have much technical knowledge so there should be training arranged on regular basis for all staff of library. The training should include needed skills and techniques for data input into the computer, internet surfing and using different telecommunication facilities to exchange information.
2) *Constant Change of Software and Hardware:* There are still various issues of up gradation of software either technical issues or connection oriented issues to solve this issues there must be standby generators in libraries and technical experts.
3) *Limited Financial Resources:* acquisition and maintenance of the appropriate equipment depends on the availability of funds. Most of the time, many libraries in Nigeria are underfunded, resulting in the inability to acquire the necessary ICTs that will allow them to connect to the Internet, subscribe to various online databases, and obtain software licenses. To solve this funds should be provided to library on regular basis.
4) *Lesser Resources Knowledge of Information and Communication Technology:* Computers are used to receive and store large amounts of information. In addition, access to the Internet is possible through the use of computers, which are used to access the Online Public Access Catalog (OPAC) and also for many other routine activities in the library. The lack of computers and other facilities remains a major challenge for many libraries. Many librarians also lack ICT skills, making it difficult for them to adopt technological innovations. The lack of knowledge of ICT severely limits the use of ICT in the provision of library services.

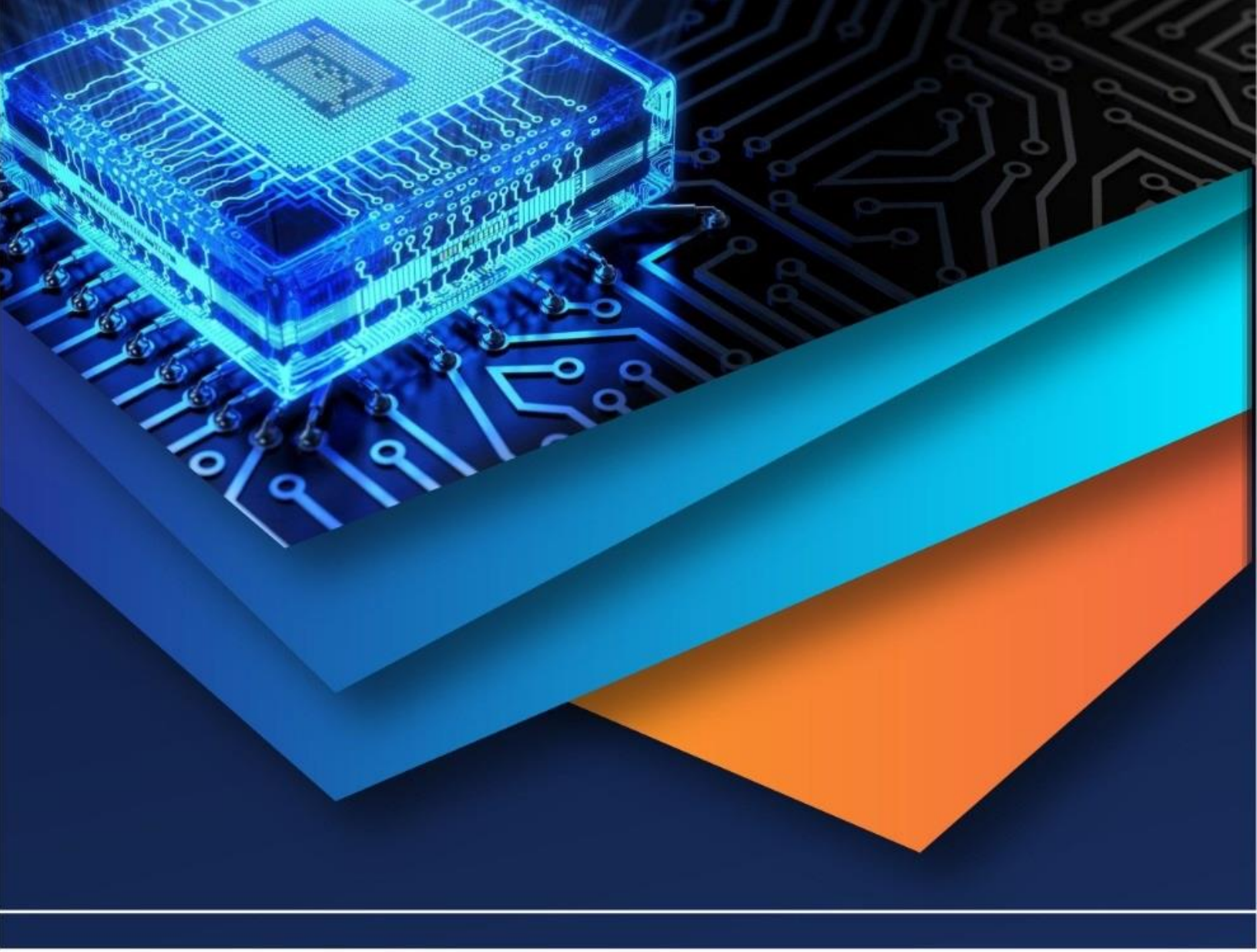
## VI. CONCLUSION

The use of ICT in the provision of library services is a fundamental effort for sustainable development. Therefore, for libraries to remain agents of sustainable development, efforts must be made to provide the right information at the right time. ICTs will not only achieve the goals of libraries, but will also help libraries compete with their counterparts in the developed world. Developing countries like India must also recognize ICT as an important strategic tool for sustainable development. Organizations, institutions, including the library, should be supported and encouraged to adopt and use ICT for efficient and effective service delivery.

## REFERENCES

[1] Library resources and their role in education (accessed 2 September, 2020); available from *osarome.blogspot. com/2011/12/library-resources-and-their-role-in.html*
[2] Raji, S.K. (2018). The role of ICT as a panacea for national development. Retrieved from www.nacoss.or.ng.
[3] Umana, K. (2018). ICT resources for sustainable development in Nigeria. Retrieved from https://researchcyber.com/icr-
[4] Janakiiirman, A., & Subramanian, N. (2015). The role of information and communication technology (ICT) in library and information science (LIS) in India. Retrieve from https://www.researchgate.net/publication/2995975501
[5] Siadu, A., Tukur, Y., & Adamu, S.H. (2014). Promoting sustainable development through ICT in developing countries. European Journal of Computer Science and Information Technology, 2(2), 24-29.
[6] Baruah, T. D. (2012). Effectiveness of Social Media as a Tool for Communication & its Potential for Technologically Enabled Connections: A Micro-Level Study. –International Journal of Scientific & Research Publications, Volume 2, Issue 5, May 2012
[7] Bingimlas, K. A. (2009): Barriers to Successful Integration of ICT in Teaching and Learning Environments –Eurasia Journal of Mathematics, Science & Technology Education, Volume 5, Issue 3, Pages 235-245, March 2009
[8] Cavas, B. Pinar, C. Karaoglan and B. Kisla, T.(2009): A Study of Science Teachers' Attitude Toward Information and Communication Technologies in Education – The Turkish Online Journal of Educational Technology, Volume 2, Issue 2, Article 2, April 2009.
[9] Casal, C. R. (2007): ICT for Education and Development. – Journal of Policy, Regulation and Strategy for Telecommunications, Communication and Media, Volume 9, Issue 4, pp. 3-9, June 2007.
[10] Chauhan, R. K and Malik, K. (2016): Innovative Use of ICT in Teaching and Learning –BhartiyamInternational Journal of Education, Volume 5, Issue III, June 2016 17.
[11] Clement, CheKum, Khan Md. S.H & Hasan M (2012). Barriers to Introduction of ICT in Education in Developing Countries: The Example of BangladeshInternational Journal of Instruction, Volume 5, No. 2, July 2012.
[12] Celebic, G. And Rendulic, D. I. (2011): Handbook: Basic Concepts of ICT. Open Society for Idea Exchange, Zagreb
[13] Duhaney, D. C., (2001): Teacher Education: Preparing Teachers to Integrate Technology. - International Journal of Instructional Media, Volume 28, Issue 1, pp. 23-30, April 2001. 20. Hattangdi, A. and Prof. Ghosh, A. (2006): Enhancing the Quality and Accessibility of Higher Education Through the Use of Information and Communication Technologies. www.iitk.ac.in.
[14] Hettiarachchi, C. (2012): Role of Information and Communication Technologies (ICTs) in Human Development in South Asia. – www.gatech.edu/uploads Department of Technology, University of Moratuwa, Sri Lanka.

©IJRASET: All Rights are Reserved



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

# INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Call : 08813907089 (24*7 Support on Whatsapp)