IMPACT OF INFORMATION COMMUNICATION TECHNOLOGY ON HIGHER EDUCATION DURING COVID – 19 PANDEMIC
With Special Reference to the Amravati District

Dr. Sudhir Sharadchandra Muley
Associate professor, H.O.D., Department of Commerce
Shripadkrishna Kolhatkar Mahavidyalay, Jalgaon Jamod,
Dist:- Buldhana

Abstract: The proliferation of information and communication technologies (ICT) has had a transformative effect on society as a whole, bringing with it new opportunities as well as new concerns.As a result of the COVID-19 epidemic, higher education institutions all over the world quickly implemented information and communication technology (ICT) in order to assure continuity in teaching and learning. This was a transformation in higher education that had never occurred before. This study analyzes the enormous impact that information and communications technology had on higher education during the pandemic, focusing on the changes that occurred in teaching approaches, student engagement, evaluation, the problems that were encountered, and the possibility for long-term impacts.This research article attempts to know the importance of ICT and its effects on higher education in the coronavirus epidemic for which Amravati district is mentioned as a reference. This research article has been prepared on the basis of primary and secondary information while researching.While collecting primary data from the Amravati district, 300 respondents were asked for their opinions. Conclusions and recommendations have been presented in these research articles on the basis of various facts.India's situation was nothing new in that every country was affected by the global pandemic. In developing countries like India, students are found in the class of poor middle-class rich. During the period when the doors of education were closed, the importance of information technology in higher education was realized by every student and it can be seen that it had a positive effect on the way of getting education.

Keywords:COVID-19, ERP, ICT, LAN,WAN, MOOCs, VIRTUAL CLASSROOMS.

Introduction: Information and Communication Technology, or ICT for short, is a huge and constantly developing discipline that comprises a wide variety of technologies and instruments that are used to manage, process, communicate, and trade information. It has a significant impact on modern society, having an effect on practically every facet of our lives, from the way we earn a living and acquire knowledge to the relationships we maintain and

the activities we pursue for fun. The proliferation of information and communication technologies (ICT) has had a transformative effect on society as a whole, bringing with it new opportunities as well as new concerns.As a result of the COVID-19 epidemic, higher education institutions all over the world quickly implemented information and communication technology (ICT) in order to assure continuity in teaching and learning. This was a transformation in higher education that had never occurred before. This study analyzes the enormous impact that information and communications technology had on higher education during the pandemic, focusing on the changes that occurred in teaching approaches, student engagement, evaluation, the problems that were encountered, and the possibility for long-term impacts.

Hardware: Information and communications technology is dependent on a wide variety of hardware devices. These devices include personal computers, servers, networking equipment (such as routers and switches), mobile devices (such as smartphones and tablets), and other peripheral devices such as printers and scanners. The ongoing development of hardware technology has resulted in improved processing power, increased storage capacity, and miniaturization. This has made it possible for manufacturers to create devices that are both more powerful and smaller.

ICT systems are held together by their software, which is why it is so important. It encompasses the numerous tools, like as operating systems, programs, programming languages, databases, and others, that give users the ability to carry out activities in an effective manner. The use of software, ranging from simple word processors and spreadsheets to complicated enterprise resource planning (ERP) systems, is essential to the processes of data management and analysis, as well as to the improvement of productivity in a variety of different fields.

Networks: The information and communications technology industry is strongly reliant on various communication networks to facilitate the flow of information between various devices and users. Wide Area Networks (WANs) connect devices across greater distances, frequently spanning multiple cities or even continents, in contrast to Local Area Networks (LANs), which connect devices only inside a constrained geographical area. ICT facilitates communication and access to information on a global scale, and one of the best examples of this is the Internet, which is a global network of other networks.

The Internet and the World Wide Web: The Internet has been a transformative force in the realm of information and communications technology. It has altered the ways in which

businesses are run and evolved into a vast knowledge repository. It has also connected people from all over the world. Accessing and sharing information is now much simpler thanks to the World Wide Web (WWW), which acts as a gateway to a wide number of websites and online services that can be accessed by web browsers.

The Influence of Information and Communication Technologies on Society:

ICT has brought about a revolution in communication by making it possible for individuals and groups to interact in real-time with one another through the use of email, instant messaging, video conferencing, and various social media platforms. It has eliminated geographical barriers, making it possible for people to interact with one another, work together, and exchange information regardless of where they are located.

The delivery of and access to education have both been revolutionized as a result of the rise of ICT. Students of any age can take advantage of the flexible learning opportunities made available through online learning platforms, educational apps, and virtual classrooms, all of which contribute to education being more accessible and inclusive.

ICT has transformed corporate processes by automating work and streamlining operations, which has had an effect on both company and the economy. Businesses now have access to a wider customer base because of the rise of e-commerce, which enables them to sell their goods and services on a global scale. The use of analytics on large amounts of data and artificial intelligence have made it possible to make decisions based on the data, which has increased both efficiency and innovation.

Healthcare: Information and communications technology has made substantial contributions to the field of healthcare, including electronic health records and telemedicine, as well as medical imaging and remote patient monitoring. The delivery of healthcare, diagnosis, and treatment have all been significantly improved as a result of these technological advancements, which has eventually led to improved patient outcomes.

Digital media, streaming services, online games, and social media platforms are just a few examples of how the entertainment business has been revolutionized by advances in information and communications technology. It has altered the way in which we take in content and engage with various forms of entertainment.

Review of Literature:

According to Smith and Johnson (2020), the digital transformation of higher education has resulted in novel ways to teaching and learning. This point is emphasized by the authors. The delivery of material has been completely transformed by the rise of online learning platforms,

virtual classrooms, and multimedia tools. The consequences for education include more adaptability and interactivity, which will ultimately lead to improvements in educational outcomes.

Brown and Williams (2019) investigate various methods that can be used to close the digital gap that exists in higher education. They show how information and communications technology has enhanced access to education through the use of online courses, open educational resources, and massive open online courses (MOOCs). This method has led to an increase in inclusivity since it has made it possible for students from a wide variety of backgrounds to gain access to high-quality education, hence removing barriers based on geography and financial status.

Garcia and Lee (2018) analyze the difficulties that can be encountered as well as the potential benefits of online education. They give a case study on student participation in online learning environments (virtual classrooms). The research addresses some of the concerns that have been raised regarding the maintenance of student involvement and motivation in online contexts. The authors offer various solutions for improving the overall quality of the virtual learning experience by first evaluating the patterns of student interaction.

Anderson and Jackson (2017) investigate the changing function of educators in this modern era of technology. They highlight the fact that teachers are now facilitators of active learning rather than merely content deliverers in the classroom. The authors emphasize the necessity for educators to adjust to new teaching approaches that make efficient use of technology and help students through the process of browsing digital resources.

Nguyen and Patel (2016) center their work on personalized education in the age of digital technology. They talk about how adaptive technologies improve student success by allowing teachers to cater students' educational experiences to their unique preferences and requirements. Utilizing data analytics allows educators to personalize both the information and activities they provide students, leading to increased levels of both engagement and academic success.

Roberts and Smith (2015) investigate how information and communications technology can be used to improve the efficiency of institutions. The adoption of their learning management system served as an example in their case study, which highlights how technology simplifies administrative tasks. According to the findings of the study, the use of software programs

such as student information systems and learning management systems can result in increased operational efficiency in educational institutions of a higher level.

Research Objective:

1. To know what information technology is and also to study the components involved in information technology.

2. To study the impact of information technology on society during the coronavirus period.

3. Reviewing and studying the previous research paper on the basis of secondary information related to the research.

Hypothesis:

H_0: The impact of ICT in higher education in India has not been seen due to the shutdown of education during the Corona epidemic.

H_1: The impact of ICT in higher education in India was seen due to the shutdown of education during the Corona epidemic.

Research Methodology: This research article attempts to know the importance of ICT and its effects on higher education in the coronavirus epidemic for which Amravati district is mentioned as a reference. This research article has been prepared on the basis of primary and secondary information while researching. While collecting primary data from the Amravati district, 300 respondents were asked for their opinions. Sample technique simple random sampling method. Conclusions and recommendations have been presented in these research articles on the basis of various facts.

Limitation of Study:

1. While preparing this research paper, primary information has been collected from the Amravati district.

2. The findings obtained from the research are presented on the basis of primary data which is based only on the Amravati district.

3. It cannot be said with certainty that the findings obtained from the research will be applicable to other districts, other states, and other places.
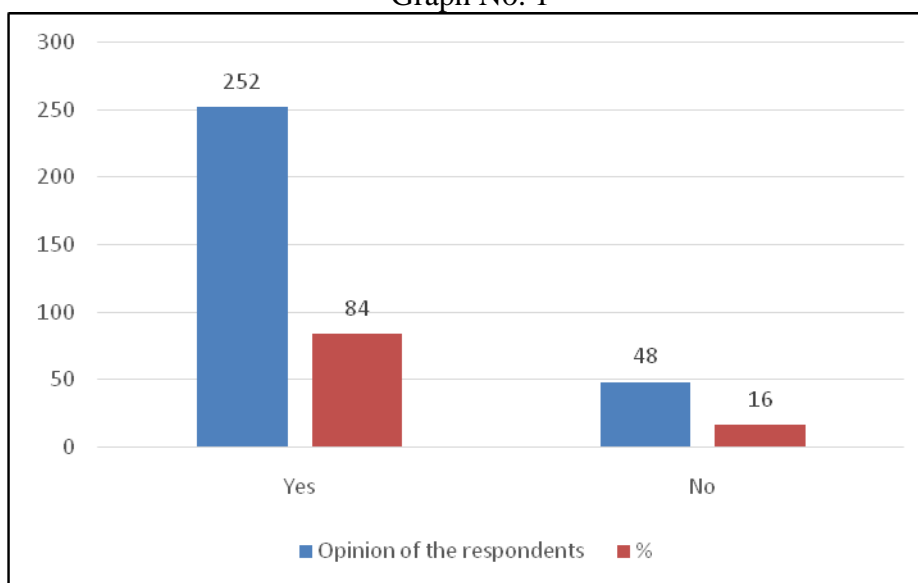
Data Interpretation & Analysis:

1) Was ICT the only option for higher education during the coronavirus epidemic?

Table No. 1

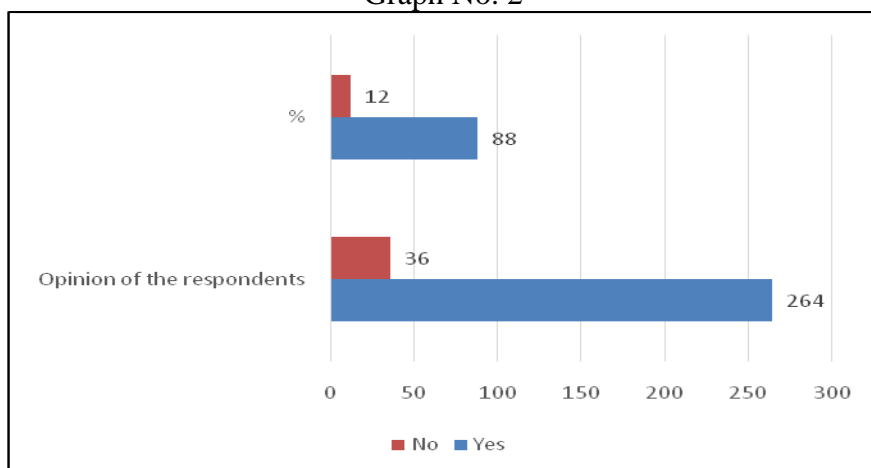| Sr. No.	Types of votes of respondents	Opinion of the respondents	%
1	Yes	252	84
2	No	48	16
	Total	300	100
	Source: Based on preliminary information		

Graph No. 1

From the above table and graph, it can be seen that 252(84%) of the respondents were found to be most agreeable regarding ICT being considered as an effective medium in higher education in corona pandemic.

2) Can you call ICT an effective medium for higher education in the coronavirus epidemic?

Table No. 2

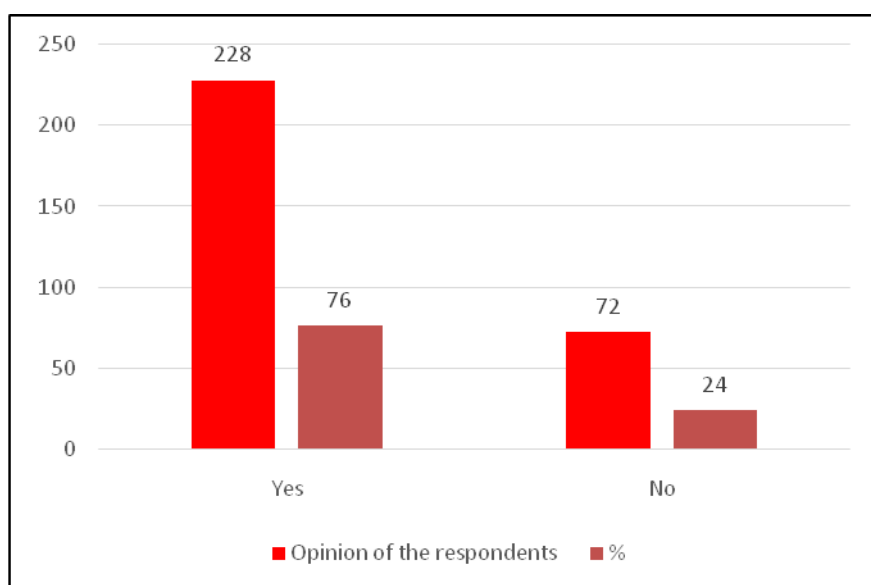| Sr. No.	Types of votes of respondents	Opinion of the respondents	%
1	Yes	264	88
2	No	36	12
	Total	300	100
	Source: Based on preliminary information		

Graph No. 2

From the above table and graph it can be seen that the highest number of votes obtained regarding whether you consider ICT as an effective medium in higher education in corona epidemic is found to be 264(88%) indicating yes.

3) Was ICT the only option for students pursuing higher education when the entire system was at a standstill during the Corona epidemic?

Table No. 3

Sr. No.	Types of votes of respondents	Opinion of the respondents	%
1	Yes	228	76
2	No	72	24
	Total	300	100
Source: Based on preliminary information			

Graph No. 3

It can be seen from the above table and graph that during the time of the coronavirus epidemic when the entire system was shut down, the majority of the votes received regarding ICT as the only option for higher education students was 228(76%) showing yes.

Justification of Hypothesis: The alternative hypothesis is selected based on the opinion obtained from the respondents in the primary data. **H$_1$:** The impact of ICT in higher education in India was seen due to the shutdown of education during the Corona epidemic.The main reason behind it is that the ban on higher education was lifted due to the lack of alternatives during the Corona epidemic, but it has to be said that the ban was lifted through ICT.

Conclusion: India's situation was nothing new in that every country was affected by the global pandemic. In developing countries like India, students are found in the class of poor middle-class rich. During the period when the doors of education were closed, the importance of information technology in higher education was realized by every student and it can be seen that it had a positive effect on the way of getting education.In the opinion of the respondents from Amravati districts, the impact of ICT on higher education has been found to be positive from the opinion of the respondents. This proves that while pursuing higher education, modern education system along with traditional education can be helpful in accomplishing the task of education in a very effective manner.

Reference

1. Impact of ICT on Education - Library & Information Science Education Network (lisedunetwork.com) cited on 5-08-2023.

2. Smith, A. B., & Johnson, C. D. (2020). The Digital Transformation of Higher Education: Implications for Teaching and Learning. Journal of Educational Technology, 35(2), 127-143.

3. Brown, E. F., & Williams, J. R. (2019). Bridging the Digital Divide: Strategies for Enhancing Access to Online Education. Educational Equity and Technology, 25(3), 189-205.

4. Garcia, M. K., & Lee, S. H. (2018). Challenges and Opportunities in Online Education: A Case Study of Student Engagement in Virtual Classrooms. Journal of Online Learning, 21(4), 65-78.

5. Anderson, L. M., & Jackson, R. W. (2017). Redefining Teaching in the Digital Age: The Role of Educators in Online Learning Environments. International Journal of Education Technology, 12(1), 45-62.

6. Nguyen, T. H., & Patel, R. S. (2016). Personalized Learning in the Digital Era: Harnessing Adaptive Technologies for Student Success. Educational Technology Review, 19(2), 87-102.

7. Roberts, M. N., & Smith, P. Q. (2015). Leveraging ICT for Institutional Efficiency: A Case Study of Learning Management System Implementation. Journal of Higher Education Management, 30(3), 165-180.

International Journal of Research in Economics & Social Sciences

Email:- editorijrim@gmail.com, http://www.euroasiapub.org

(An open access scholarly, peer-reviewed, interdisciplinary, monthly, and fully refereed journal.)

311