



### RESEARCH ARTICLE

#### AN ANALYTICAL STUDY ON DIGITAL TRANSFORMATION: IT'S POSITIVE AND NEGATIVE IMPACT ON EDUCATION SECTOR

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#### Abstract

There are many studies and surveys done on digital transformation in different areas like E-Banking, E-Commerce, hospitality, information technology, etc. In the present time, there is a strong need for digitalization in the proper manner with highly digitalized tools and security. The term digitalization means the conversion of physical or paper mode to digital mode. Digitalization plays an important role in the education sector at present, or after the covid-19 pandemic, it shows the replacement of the old education system and policies in schools and colleges. Digitalization brings lots of changes in both positive and negative aspects of student's life. E-learning tools make the tutor lecture easier with attractive colorful animation forms, and on the other hand, it also affects students' mental and physical health. In this study, we discuss the pillars of digitalization, E-learning platforms, opportunities, challenges, and the future aspect of digitalization in the education sector at the college level.

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#### Introduction:-

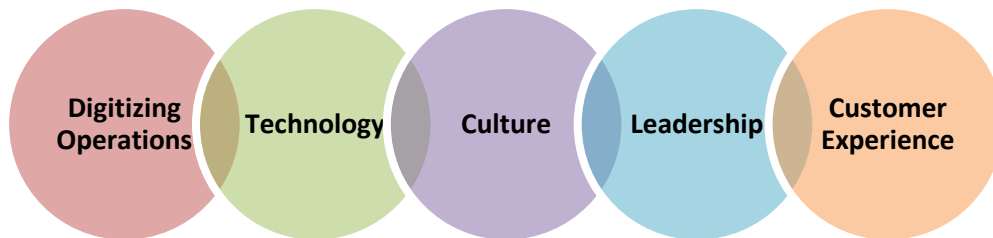
Digitalization is the process of using digital tools and techniques to change a business model and provide new value-producing opportunities and revenue. In other words, we can say that the process of converting analog data into digital form. It has been determined as the most beneficial technology trend that plays an important role in changing business and society. At the present time, most of the sector is constantly under pressure to use digital techniques, but digitalization also requires many investments and associated costs. Global industries have experienced technological changes over the past few decades that type of changes create opportunities like increased reactivity, flexibility, and product individualization, but they have also presented different types of challenges like changing customer preferences, legal requirements, and fast technological changes. Digitalization involves many technologies like cloud technology, sensor, animation, 3D printing, graphics, etc. These types of techniques make the work easier to understand, attractive, and safe.

If we look back to the Vedic period in India, education was delivered through the gurukul system, where the guru taught the students under the tree in the natural environment, and students were also strictly monitored, controlled, and mandated to follow the strict brahmacharya, Jeevan. Thereafter came the time period of classroom learning and teaching, where instructions were given to students with the help of textbooks and blackboard. In 1991 with the opening of the Indian economy, the way of learning and teaching changed significantly, where blackboards were replaced by LCD projectors, smart boards, and computers. Teachers demonstrate the topics to the students, not

through the traditional method, chalk and talk but replacing it with PowerPoint slides, audio recordings, and visual clippings. We are digitizing our education sector and migrating gradually towards a paperless environment; thus, old traditional books have been replaced by E-books, and E-assignment has replaced hard copy assignments with soft copy. Even teacher and student relation is becoming more electronic with the help of various online learning applications and tutorial websites. The digitalization of the education system has made available a large amount of information in just one click and easily fulfills his hunger for knowledge.

At the present time, India has achieved a good position in the field of education. After covid-19 pandemic, India's education sector is becoming more digitalized and advanced and old classroom learning methods are being replaced by new methods and techniques. In India cycle of digitalization in the field of education is quickly developed in the last 3-4 years. Private schools and colleges are adopting science and innovation quickly to fulfill the student's needs in the field of E-learning.

### Pillars Of Digital Transformation



**(1) Digitizing Operations:** The process of converting existing data and documents from analog to digital form is known as digitizing operations.

**(2) Technology:** There is an urgent need to reimagine the role of automation and technology in the workplace. It has become necessary for modernizing IT to adjust to a new environment and develop methods that significantly advance the field.

**(3) Culture:** Companies and the education sector clearly realized the importance of organizational Culture, it's also playing an important role in enabling wide-scale digital change. A top-down decision cannot be made about digital transformation. It must be a movement that unites the company's vision with a healthy and strong people-centric work philosophy that welcomes change.

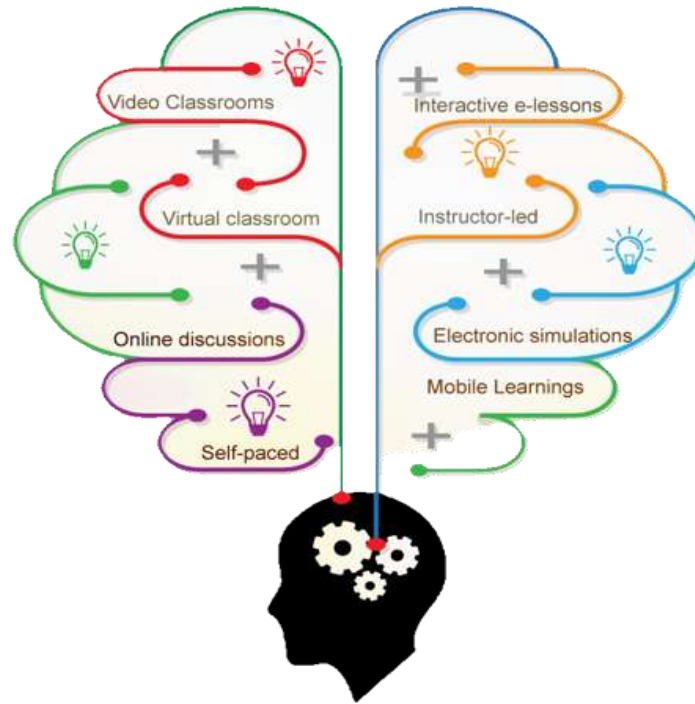
**(4) Leadership:** The thing that shows the success of the digital transformation is the ability of employees of the company to thrive through innovation and move in unity. Flexibility, storytelling, inspiration, and decisiveness are keys that are used by leaders to help their organizations succeed.

**(5) Customer Experience:** Customers' expectation of being at the top level, the organization identifies the need to create consistent approaches across personalized experiences and brand touchpoints and also integrate smart tools that help customers derive value. Customer expectations are the biggest drivers of digital transformation.

### Technology Used

In the digitalized learning process, we used different types of Software, electronic devices, and many other applications relevant to digitalized learning. In the present time, technology has affected our education sector and its surrounding in different forms. In multiple educational institutes, technology has improved the quality of education. There are lots of mediums and other things used in digitalized learning.

During the covid-19 pandemic, especially during the lockdown period government should not avoid social distancing and another important step towards controlling this dangerous virus. The main objective of schooling is to learn, so the government of India chooses some other options to continue the learning of students in this pandemic. One of the best ways to continue learning at that time, give them the platform of E-learning through different types of digital technology-based methods, some of them are Self-Paced Learning, App-Based Learning, Virtual Classroom, Video-Based Learning, Group Learning, Massive Open Online Course Mobile Learning, etc.



### E-Learning Platforms

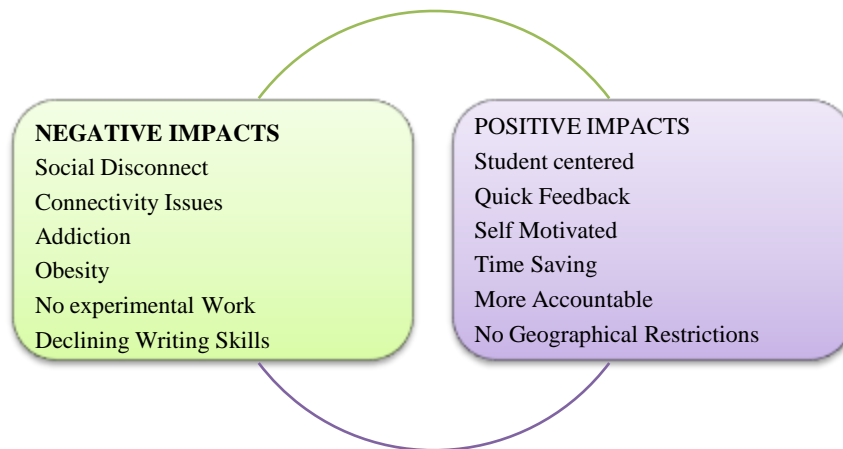
By 2021, it was expected that India's online education market would expand at a CAGR of 52%. Additionally, following the covid-19 pandemic, the number of subscribers to online learning platforms increased massively. Multiple platforms and applications are now available in the online education sector for all types of students. As a result, parents may now select the best platform based on their child's learning requirements, like BYJU'S, Unacademy, Vedantu, Google Classroom, Epathshala, etc.

### Positive Impacts Of Digitilization

- (1) In the era of digitalization, students will frequently choose correspondence courses at school and university levels in different fields that are offered distance or online mode.
- (2) It also empowers video conferencing when schools in various areas of the world, states, and nations. Students can meet their partners without leaving the lecture hall.
- (3) By providing personal computers in every hall, instructors help learners to adjust carefully to grammatical errors, spelling corrections, and other errors. It creates accuracy in the educational environment zone.
- (4) Better information sharing without geographical limitations and fast delivery of notes, easy communication with more students at the same time.
- (5) More accountable and self-motivated

### Negative Impacts Of Digitilization

- (1) Teachers are not fully prepared to use automation as technology advances because of their lack of training in the subject. As a result, students are just using technology rather than gaining knowledge.
- (2) As technology advances more frequently, website owners feel pressure to have their sites appear higher in search engines, so they simply focus on ranking rather than the content they provide.
- (3) Declining writing skills and also reduced face-to-face interaction.
- (4) Addiction, social interaction, obesity, and other physical activities are also disturbed.
- (5) This type of learning also disturbs a student's daily discipline and routine because they do not have any kind of restriction like a uniform, body posture, etc.



### Review Of Literature:-

1. Paul and Jefferson, (2019) a growing number of students are now opting for online classes. The traditional classroom modality is restrictive, inflexible, and impractical. In this age of technological advancement, schools can now provide effective classroom teaching via the Web.
2. Golzer and Fritzsche, (2017) provide implications for operations management. In a digitalized industrial scenario, adapted decision processes, an extended repertoire of data and data management, and big data treatment must be considered when facing new dynamics of data management.
3. Jha, Nivedita, Shenoy, and Veena (2016), in their study article titled "Digitization of Indian education Process: A Hope or Hype, noted that various economic sectors, including the education system, have seen numerous various changes throughout time, from the Guru-Shishya system of teaching in an open garden with trees to lectures in a closed classroom, presentations using an LCD touch-screen projector, online notes, and now instant Whatsapp messaging are all the rage among students.
4. Hagberg et al., (2016) show that integrating digital technologies, information, and data analytics enhances, extends, or redefines the customer experience.
5. Moravec et al., (2015) mentioned that there are several studies looking at how E-learning devices affect student outcomes, similar to Fatih Baris and Tosun (2013), who described the impact of using E-tools in the education process at the high academy and concluded that this device has a positive impact on students.
6. Kamble, Avishkar. D., (2013), in the paper titled "Digital Classroom: The Future of the Current Generation," examined the significance of digitization in education and stated that a modern classroom is primarily a communication and information Technology based classroom. This project aims to transform traditional classrooms into interactive sessions by combining cutting-edge hardware with syllabus-compliant multimedia content.
7. Smith, (2009) stated that E-learning is one of the most recent types of education systems that have captured the attention of instructors all over the world, according to Arasteh and colleagues.

### Need Of The Study

In present time and after this Covid-19 pandemic, we have adopted a digital platform for students because, we have no other choice to continue education at the secondary and higher educational levels. Students who participated in digital learning encountered numerous issues and benefited from them. In order to identify the effect of digital learning on students' lives, we gather the student's feedback in digital form with the help of a questionnaire regarding his study on a digital platform. What kinds of difficulties or advantages did they observe while learning? Thus, understanding the fundamentals of digital learning is essential.

### Objective Of The Study

1. To study about the pillars of digital transformation.
2. To know the positive and negative impacts of digitalized learning.
3. To analyses awareness of student regarding digital learning.
4. To suggest the future action plan and policy for better implement in digital learning.

## Research Methodology:-

The study is based on an online survey with the help of Google Forms for the analysis of changing structure of digitalization in the education sector in India. A Primary Survey will be conducted through a self-structured questionnaire in digital form and online discussion from different experts through Google meetings. The questions to be asked will be both closed-ended and open-ended. This online survey tests the reliability of the questionnaire's structure and determines whether the motive will be fulfilled. An analytical study is conducted in this research to improve the future performance of the sample selection to find out the accuracy of the result.

## Sample Selection

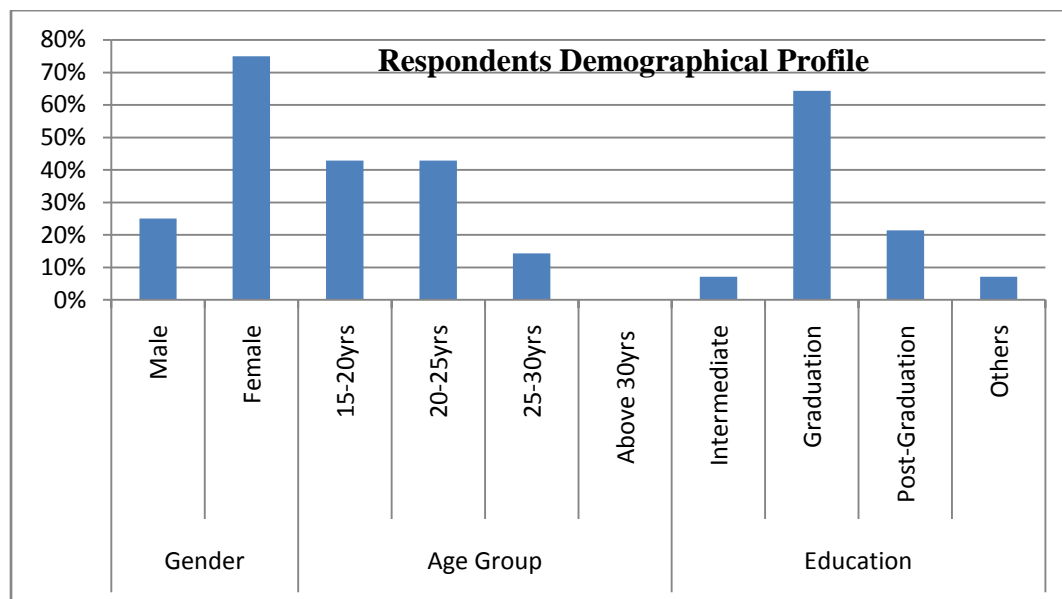
In this online survey of digital Learning in the education sector, we took a sample of 28 students from different schools & higher educational institutes in Agra City. Random sampling will be used when we meet students and find out the problems and benefits of digital Learning in the present time, especially during the Covid-19 pandemic lockdown period. The survey on digital Learning helps me to find out the positive and negative aspects, and students also give suggestions to improve digital Learning.

## Data Collection

The data has been collected to know the positive and negative aspects of digitalized learning by administering a self-structured questionnaire and conducting structural interviews of the concerned respondent with the help of Google Meet. Personal contact and emails were used for the fulfillment of the research objectives. Secondary data would be used for the finding and analysis.

## Alalysis And Findings

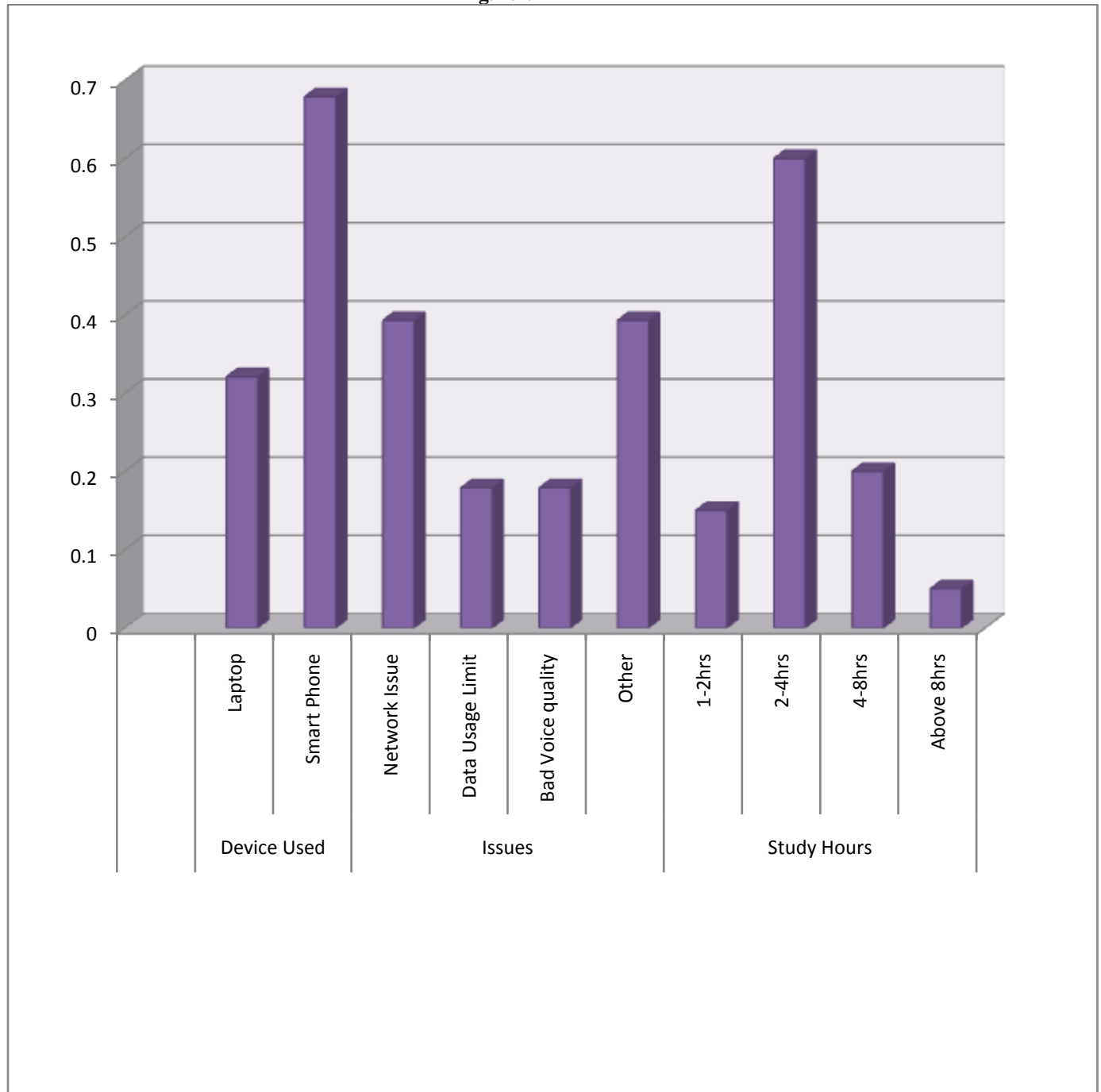
### Demographical Profile Fig.1.1



Source: Primary Data

In figure 1.1 given above, we take a number of students, 28 out of which we categorize them into different groups based on age group, gender, and educational qualification. There 75% of females and 25% of males used the platform of digital learning; out of them, 42.9 % were intermediate, 42.9% were graduate, and 14.3% were post-graduation students involved in digital learning.

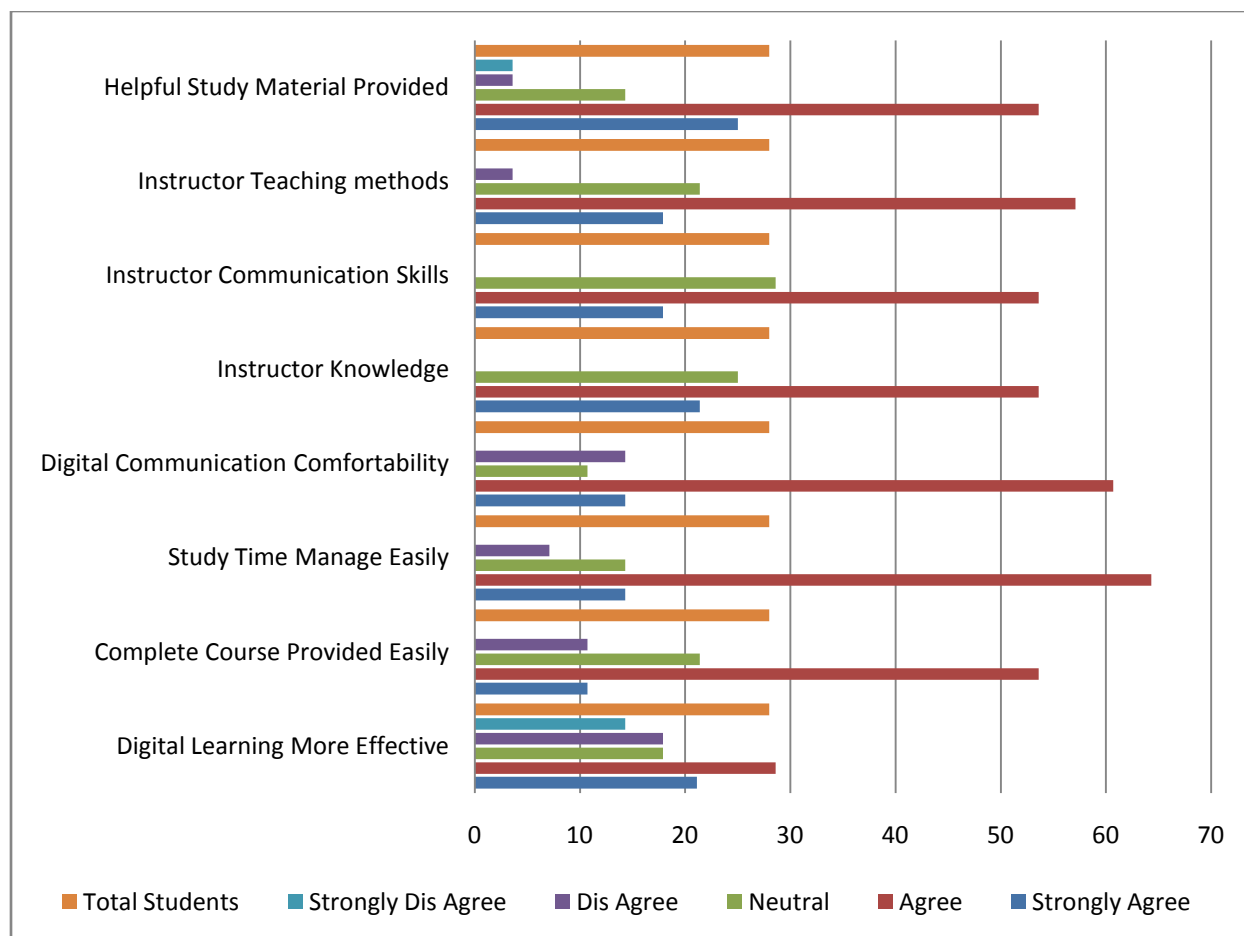
Fig. 1.2:-



Source: Primary Data

In the above figure 1.2, we take several students, 28 out of which we find out the problem regarding devices used for digitalized learning and types of problems faced by the student during class like data usage, network issue, etc. In our findings, we have seen that most students use Smartphones as compared to other online learning devices and face problems with connectivity while online classes are running.

Fig. 1.3:-



Source: Primary Data

In this figure 1.3, in the form of a graph, we included answers to eight questions, and we see that digital learning is to be more effective for students. The fewer number of students is like offline learning. The study material provided by the instructors was very helpful to students, and a large number of students were satisfied with the study material provided in digital learning platforms. Study time will manage easily by students, and instructors' communication skills and teaching methods are also very effective. During Covid-19 Pandemic, E-Learning is very useful for students; social distancing is also maintained through this digital learning platform, and by this, we also plan an important role in breaking the chain of the coronavirus.

**Table 1.1:-**

1.	Type of Learning Students Prefer	Digital Mode	Offline Mode	Total Students
		39.3%	60.7%	28
2.	Satisfied from Technology Used	Yes	No	28
		96.4	3.6	28
3.	Useful in Covid-19 Pandemic	78.6	21.4	28

Source: Primary Data

In the table given above, we take a sample of 28 students. Out of them, we find that 39.3% used digital platforms and 60.7% was like used offline classes, but covid-19 time students liked digital learning more as compared to offline classes. Out of the average time spent by a student on digital learning is to be 2-4 hours, only four percent of students spend more than eight hours on digital learning. 78.6% of students are satisfied with the technology used for running digital education platforms. Most students like offline classes as compared to online classes because social interaction is not possible in online learning.

**Suggestion:-**

Digital learning is one of the best options adopted by universities and schools in the present time, especially in covid-19 pandemic, but social interaction must be important for students to enhance their experimental, cultural, and physical activities. Through digitalized learning, sometimes this is not possible, especially in this horrible covid-19 pandemic situation. We should avoid social interaction. Digital learning is the best option for us. Many problems faced by students in this digitalized learning platform, some of them are given below:

1. The subject instructors need to increase their technical know-how and must get friendlier with the features offered by such digital learning platforms.
2. During online classes, the conversation is missing. It is like a one side effort. Students should have a particularly official link or page to check official notices and avoid rumors.
3. Notes provided by the instructor should be in easy and student-friendly language so that students can understand easily while self-studying.
4. The instructor should be a little more cooperative, and the students should also be respectable enough to listen to the class and not create a nuisance.
5. Group discussions and doubts sessions should be considered to ensure the active participation of students.
6. According to students, offline studies are better than digital online learning but digital learning should be continued as soon as possible during this pandemic.

**Conclusion:-**

In the present time, the utilization of innovation and digital technology can improve our education sector. Technology can be an extremely effective tool, a device since a human has made innovation and innovation has not made humans. The accomplishment of such an undertaking will ultimately rely on how technology is applied to keep learners locked in. It tends to be unaccountable and monotonous, yet at long last, digital transformation in the education sector can make ready new revelations and better strategies for learning and teaming up.

This analytical study expresses that digital education is one of the best methods in this covid-19 pandemic; the strategies and technology of digital have more to do with who is understanding, who teaches, and how digital learning medium of learning interactions are carried out and extend the learning strategies or techniques. This type of learning is very useful to learners if it is well prepared by the teachers in terms of learning media, interaction models, assessments, and communication techniques. Digital learning always needs properly designed charts, graphs, tables, and diagrams to get information easily from learners. In online classes, sometimes learners face many problems like connectivity issues, buffering, sound problems, etc. So software and application used by instructors are updated timely. The videos of the lectures are also provided by the teacher for the student who misses the class due to valid reasons. There are also some negative aspects, like lack of social interaction; cheating is done quickly during online college exams. Physical activities like games, experimental work, cultural activities, and other things did not occur due to digital learning.

This also affects the social, mental, and physical development of the student. But in the covid-19 era, we cannot play with human life; social distancing was maintained through these digital learning platforms, and we also broke the chain of the coronavirus and provided a healthy and safe atmosphere to the students.

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