A STUDY OF DIGITAL ADMINISTRATION IN AIDED GENERAL COLLEGES OF MUMBAI REGION

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By

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OCTOBER 2022

DECLARATION

I hereby declare that this Ph.D. thesis titled **"A STUDY OF DIGITAL ADMINISTRATION IN AIDED GENERAL COLLEGES OF MUMBAI REGION**" completed and written by me has not previously formed the basis for the award of any degree or other similar title upon me of this or any other Vidyapeeth or examining body.

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CERTIFICATE

It is certified that the work titled**, "**A STUDY OF DIGITAL ADMINISTRATION IN AIDED GENERAL COLLEGES OF MUMBAI REGION**"** is an original research work done by Mrs. Vrushali Amit Raut, under my supervision for the degree of Doctor of Philosophy in Management studies to be awarded by Tilak Maharashtra Vidyapeeth, Pune. To the best of my knowledge this thesis

- Embodies the work of the candidate herself
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- Up to the standard in respect of both content and language for being referred to the examiner.

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UNDERTAKING

I, Mrs. Vrushali Amit Raut, am a Ph.D. Scholar of the Tilak Maharashtra Vidyapeeth in management studies subject. The thesis titled **"A STUDY OF DIGITAL ADMINISTRATION IN AIDED GENERAL COLLEGES OF MUMBAI REGION",** under the supervision of Dr. S.R. Kandalgonkar, solemnly affirms that the thesis submitted by me is my work. I have not copied it from any source. I have gone through an extensive review of literature of the related published / unpublished research works and the use of such references made has been acknowledged in my thesis. The title and the content of the research are original. I understand that, in case of any complaint especially plagiarism, regarding my Ph.D. research from any party, I have to go through the inquiry procedure as decided by the Vidyapeeth at any point in time. I understand that, if my Ph.D. thesis (or part of it) is found to be duplicated at any point in time, my research degree will be withdrawn and, in such circumstances, I will be solely responsible and liable for any consequences that arise thereby. I will not hold the TMV, Pune responsible and liable in any case. I have signed the above undertaking after reading carefully and knowing all the aspects therein.

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Mrs. Vrushali Amit Raut

ABSTRACT

I am glad to write the abstract of the thesis titled "**A Study of Digital Administration in Aided General Colleges of Mumbai Region**". The demand and scope of Higher Education is increasing day by day. Academics and Administration are the two arms of Higher Education Institutions (HEI). Academics is the process of imparting education. Administration is the activity that creates and enforces rules and regulations for the smooth running of HEI. It manages the day-to-day conventional methods of HEI. Administration is a wide field with various branches and each branch of administration requires special skills. The roles and responsibilities of the college administrative staff play a pivotal position for in the smooth functioning of the routine proceedings of the college. College administration has various branches. It is a requisite of time to use various digital platforms by the college administration for smooth and precise working of a college.

The traditional method of college administration has become time-consuming and over burdensome. Digital Administration designs the Online College Management Software in such a way that, it saves time and reduces the workload of the administrative staff. It helps the college administration to complete the task in very precise time. There is a need to avoid lengthy administrative processes with the help of digitalization and fabricate the concept of queue-less office administration. It is also essential to assess the training needs and development programmes for the college administrative staff.

The researcher has developed a curiosity about the functioning of the college administration on a digital platform in Aided General Colleges of the Mumbai Region. Although Mumbai is a developed city, the colleges in the Mumbai Regions are not yet fully digitalized for various reasons. There are various issues which need to be addressed and catered to, for successful implementation and utilization of digital platform in college administration. The researcher has taken up the present research work by conducting a comprehensive study of digital college administration through primary and secondary data and opinions of stake holders as well as office bearers of the Higher Education Institutions.

The present research work will be classified into the following chapters :

- Introduction
- Literature Review
- Research Methodology
- Data Analysis and Interpretation
- Conclusion and Recommendations

It is observed that digital platforms and use of digital technology in modern college administration of HEI have yet to be studied. It is necessary to discern the problems faced by the administrative staff while using digital resources and implementing tailor-made software useful for different stakeholders. Digital administration in aided general colleges in the Mumbai Region is an exigency of the modern era and it is necessary to create an awareness about the utilization of digital platforms and the usefulness of digital administration among staff and students.

The perception of the staff and the students about the various aspects of digital administration differ. The staff is engaged in multiple administrative activities on a digital platform, which is beneficial for keeping the work efficient and transparent and all these activities are correlated, whereas the students look at it for compliances. There is a difference in the understanding and adoption level of digital administration within various groups of students and staff. Even so, there is a distinct change in the approach towards communication and interaction through digital technology in aided general colleges.

The researcher has contacted staff and students of aided general colleges of the Mumbai Region for data collection and has interviewed the officials from the Higher Education Department. Through this research, researcher has developed a process for digital administration, adaptation for all stakeholders in aided general colleges, which will be beneficial for enhancing the quality of administration alongwith a specified course of action for a fully digitalized college administration, proficient and competent for confronting the challenges of college administration.

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LIST OF ABBREVIATIONS

Abbreviation	Explanation
MHRD	Ministry of Human Resource Department
MoE	Ministry of Education
HEI	Higher Education Of India
DHE	Department of Higher Education
HTED	Higher and Technical Education Department
JDHE	Joint Director of Higher Education
UGC	University Grants Commission
AICTE	All India Council for Technical Education
DT	Digital Tecnology
DA	Digital Administration
NAD	National Academic Depository
NIRF	National Institute Ranking Framework
RUSA	Rashtriya Uchchatar Shiksha Abhiyan
DoE	Director of Education
NAAC	National Assessment and Accreditation Council
SSR	Self Study Report
IQAC	Internal Quality Assurance Cell
AQAR	Annual Quality Assurance Report
IIQA	Institutional Information for Quality Assessment
GER	Gross Enrolment Ratio
AAA	Academic and Administrative Audit
ISO	International Organisation for Standardisation

NTA	National Testing Agency
MCSR	Maharashtra Civil Service Rules
GC	General Council
EC	Executive Council
NKC	National Knowledge Commission
NMEICT	National Mission on Education via ICT
ICT	Information and Communication Technology
DT	Digital Technology
NDL	National Digital Library
ERP	Enterprise Resource Planning
DI	Digital India
AI	Artificial Intelligence
NEP	National Education Policy
NPE	National Policy on Education
POA	Program of Action
NME	National Mission on Education
SWAYAM	Study Webs of Active-Learning for Young Aspiring Minds
MOOC	Massive Open Online Course
MKCL	Maharashtra Knowledge Corporation Limited
FOSSE	Free/Libre and Open Source Software for Education
NIOS	National Institute of Open Schooling
NPTEL	National Project for Technology Enabled Learning
NCERT	National Council of Educational Research and Training

IIT	Indian Institutes of Technology
IHS	Indian Higher Education
UMANG	Unified Mobile Application for New-age Governance
IDOL	Distance and Open Learning
LXP	Learning Experience Platform
LMS	Learning Management System
R & D	Research and Development
L & D	Learn and Develop

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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Academics and administration are two important pillars for any educational institution. College administration plays an important role in colleges. It is a bridge between all the stakeholders. Effective administration is required for the smooth functioning of the college. The administration must meet the needs of the modern era by incorporating digital technology into day-to-day administrative tasks. Globalization has made the globe more dynamic and competitive, with a wide range of educational tactics, expertise and knowledge being developed and altered periodically. So, in order to compete in the race and to make life easier for stakeholders, digitalization in administration is a must in this age.

There are various educational institutes in India that are known for their academic quality. Students' personalities are shaped by the educational institutes which are situated in the developed cities of India and focus on the overall development. Mumbai is the financial capital of Maharashtra and a developed city. This city is one of India's major metropolises and it is also known for its educational system. Mumbai University, one of India's oldest universities, is located in Mumbai. Furthermore, this city contains numerous colleges that provide courses in science, arts and commerce. There are some colleges in Mumbai that were established in pre-independence. The Higher and Technical Department of Maharashtra Government has notified the area that falls in the Mumbai region. There are total 101 non government, aided colleges in the Mumbai Region, out of which 80 are general education aided colleges. According to its circular no. F-1117/83 (CP) dated November 25, 1985, the University Grants Commission designated general education colleges as institutions that grant B.A., B.Com and B.Sc. degrees. The term aided colleges refers to educational institutions that receive grants from the Government of Maharashtra.

Since its inception, the traditional method of administration has been prevalent in these aided colleges. This has included the appointment of staff by the concerned educational society, payroll, general ledger, admission, enrolment, examination and result at the college level. Due to the progress of information technology in the

educational sector, today the college administration is moving towards digitalization. The stakeholders viz., Principal, staff, students, parents and society, are all involved in this process of administration where the first three are the main stakeholders who are directly connected with day-to-day administration.

The present study is undertaken by the researcher out of curiosity about digital administration. The present day administration is largely being taken over on various digital platforms in which all the stakeholders are involved. The expectations, experiences and desired changes are the different aspects from the perspective of these stakeholders. The researcher wishes to examine all these aspects of different perspectives of all the stakeholders in the Aided General Colleges of Mumbai Region.

1.2 STATEMENT OF PROBLEMS

Although the use of digital technology has become widespread, its full potential has yet to be realised. This is an Information and Communication Technology tool to improve performance, introduce total transparency and accountability leading to encompass a transformation essential in establishing qualitative education facilitating teaching-learning process and digital administration. It has grown in popularity as a useful, relevant and necessary administrative tool. It is beneficial in all organisations to establish good and transparent governance. Developing countries have acknowledged and begun to adjust to the importance of digital technology as an essential aspect of good governance. The administration operated through digital technology is called e-governance.

Digital technology has reached every entrance of Higher Education Institutions and almost all of them believe that it is a very useful tool that changes an institution's working culture. However, educational institutions face numerous challenges while implementing digital administration. Staff and students spend their valuable time attempting to obtain accurate and timely information via digital technology but fail to do so. Despite the fact that the use of digital technology improves staff and students' learning experiences and provides new administrative opportunities, there are no consistent criteria and steps for the use of digital technology in teaching-learning and administration in aided general colleges.

There are no set and common guidelines for the use of digital administration in colleges. For the purpose of the enrolment and examination, the Maharashtra Knowledge Corporation Limited (MKCL) portal is used by all the colleges, due to which there is consistency in the examination and enrolment work in all the colleges. Similarly, if all the general aided colleges had the same system of digital administration, it would be more convenient for all the stakeholders. It is necessary to find out whether the stakeholders are aware of this digital administration, whether they know the steps for effective administration and if applied whether they have benefited from its application. The deployment of digital technology in general aided colleges is heavily influenced by college administration. For the effective adoption of digital administration, a robust infrastructure and prompt training for both college personnel and students are required. Although, the new generation of students are techno savvy, the mind set of the college staff is required to change for adaption to digital technology.

Till date, various studies have been conducted on understanding college administration, but keeping digital administration of colleges in focus, a profound study is necessary. This research attempts to study the digital administration in General Aided colleges in the Mumbai Region.

1.3 SIGNIFICANCE OF THE STUDY

Today, Digital Administration has been incorporated and accepted in most of the professional institutions in India and outside India. It has been found that the effectiveness of digital administration increases transparency, saves time and improves efficiency and productivity. Effective digital administration can also improve the overall performance and foster development skills.

The college environment is shifting away from traditional administration towards digital administration. This situation necessitates a thorough understanding of the digital administration fundamental idea, as well as the system integration requirements. Managing administrative services in a digital environment requires expert assistance, abilities and guidance. The expectations and experiences of users are critical for the development of digital administration. Understanding user

perceptions and views, as well as perspectives from Principals, staff and students, would help in the formation of digital administration more effectively. As a result, the research will look into the issues relating to the design, measuring and assessment of the institution's digital administration.

At the same time, the highly substantial costs associated with digital technology, particularly at the development stage, pose a big challenge to changing the mindset of the various stakeholders. Another challenge is that digitalization has to be an affordable and comprehensive learning method. Therefore, many educational institutions, especially traditional institutions, find it difficult to incorporate it into regular practice.

There are numerous important aspects that discuss the vitality of digital administration in colleges. Here are a few examples:

- Digital administration eliminates the need for physical storage.
- A user-friendly interface is provided by digital administration.
- The students are technologically savvy.
- Seamless administrative work by college staff
- Due to digital administration, information can be preserved and converted.
- It will save the college income, time and energy in maintaining infrastructure and technology for the design of digital administration.

Digital administration is expanding education method with each passing day empowering staff and students to gain more interest in education system expanding the horizon of traditional learning and online administration.

The present research has been undertaken to study the need, uses and awareness of digital administration at various levels of stakeholders, steps towards digitalization and also to determine how to improve the administrative efficiency in General Aided Colleges in Mumbai Region.

1.4 SCOPE OF THE STUDY

The present research is focused on administration in aided general colleges of the Mumbai Region. The government of Maharashtra (HE & TE Department) restructured the Higher Education Department in seven regions as per GR No. USG/1493/(26)/mashi-2 dated 17.05.1994. Later, as per the requirement, ten different Joint Director's offices were set up. A separate Panvel region was created when the Maharashtra government's GR No. 2009/(262/09)/mashi-2 dt. 27.08.2010 went into effect and only Mumbai City and Mumbai Suburbs were under the Joint Director of Mumbai Region's control. The Mumbai region has transformed into a rapidly expanding city with advanced digital technology. This research aims to understand the various factors responsible for the adoption of digital administration in general aided colleges of the Mumbai Region. Digital Administration is very much desired in the context of educational administration in Mumbai Region's General Aided colleges. This study considers the college administration related to the Principal, teaching and administrative staff and students of such colleges. However, the present research is conducted by the researcher herself and hence has certain personal limitations in terms of time and resources.

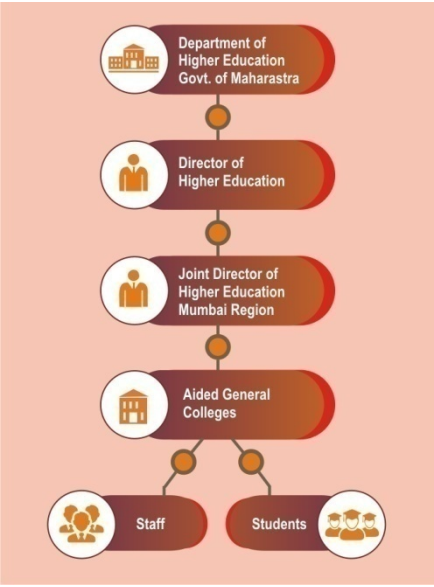


Figure : 1.1 Hierarchy in HEI

1.5 HIGHER EDUCATION IN INDIA

A crucial component of human development is education. Literacy abilities are developed as a result of education. A nation's socioeconomic sector benefits greatly from education. India is one of the most populous democratic nation in the world. Due to well-planned educational progress, there have been substantial changes in higher education in India over the past 20 years. It is in charge of one of the biggest higher education systems in the world, ranking third behind China and the United States. India has the third-largest higher education system in the world. India's Ministry of Education has two departments dedicated to education:

1. Department of School Education & Literacy
2. Department of Higher Education

The country's educational system and literacy are under the control of the Department of School Education and Literacy. After the 12th grade, the Department of Higher Education is responsible for providing higher education in a variety of subjects and streams. It includes private universities, deemed universities, Central and State universities.



Figure : 1.2 Regulatory Framework of Higher Education in India

Historical track of Education Sector

Ancient Period:

In ancient India, during the Vedic period, learners lived in Gurukuls or Ashramas to obtain knowledge from their Gurus, which was far away from their homes. Education was completely under the dominion of one person i.e. a Guru. Hence it was also

called the Gurukul system. It played a crucial role in the transmission of oral and written traditional elements like Indian religion, Indian logic, Vedic mathematics from one generation to the next. Takshashila University, Vikramshila University and Nalanda University were India's most important and ancient educational institutions. The language of education for Vedic system was Sanskrit. Buddhism period witnessed a student's world and family relationship renunciation, based on the doctrine of analyzing quandaries of life. Pali language was the medium of education. In both the systems, education was influenced by religion. Islamic system of education, initiated by the Mughals during the Mughal period, which was imparted in maktab-madarasa incorporated general knowledge, languages, arts, various skills, mathematics, law, Social Sciences and literature in the syllabus.

Despite the numerous forms, that arose as a result of changes in religion as well as changes in social, economic and political life, the higher education system prospered in ancient India and continued to impact developments throughout the country's subsequent ages. The purpose of education was to boost moral and religious principles as well as promote general development.

Pre Independence Period :

The arrival of British in India marked the history of modern education, wherein the East India Company was compelled to accept the responsibility of educating India as per the Charter Act of 1813. After passing the English Education Act in 1835, Lord William Bentick, Governenor General of India, made English the medium of instruction in India. Bentick declared the new education system for the Indian youth, proposed by Lord Macaulay in 1835, boosting English as a language and culture. The goal of education, the courses of study, the medium of teaching, the framework of universities and other educational institutions, the grant-in-aid system, education for women, and other topics were examined by a committee headed by Mr. Wood in 1853. The first three universities were founded in 1857 at Calcutta, Bombay, and Madras.

The East India Company's rule over India came to an end in the year 1857 and the British Crown assumed control. It was thought necessary to evaluate the state of

education in the nation after the transfer of administrative authority. It was noted that the grant-in-aid system was not carried out correctly. The Indian Education Commission was established on February 3rd, 1882, by Lord Ripon, with Sir Willium Hunter serving as its chairman. The Hunter Commission of 1882 is referred to as it. The Hunter Commission was a significant milestone in Indian education. The committee largely suggested that six heads be evaluated, including: policy, legislation and administration, encouraging indigenous schools, school administration, teacher training and finances.

The Indian Universities Act, 1904 provided directions for the development of universities in different parts of the country. Before independence three education commissions were set up in 1882, 1902 and 1917 to monitor the Indian education system and recommend reforms in Indian education.

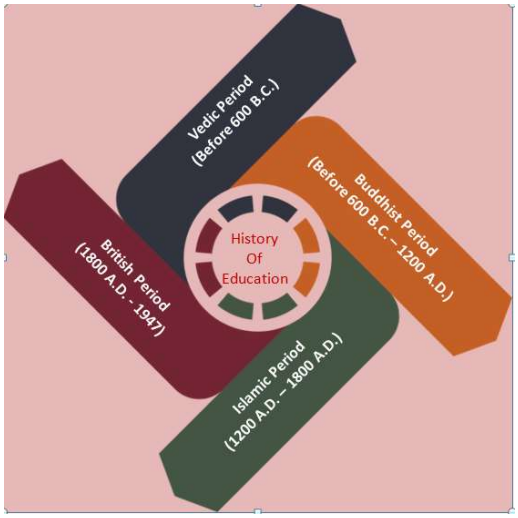


Figure : 1.3 Education in Pre independence period

Post Independence Period :

The Fourth Education Commission, known as the University Education Commission, was founded in 1948, following the country's acquisition of independence and to examine the growth of higher education in the nation. Dr. Radhakrishnan served as its Chairman.

In the field of higher education, the University Grant Commission's founding in 1956 has been recognised as a turning point. The Kothari Commission examined every level of education from primary to postgraduate in 1964. The Kothari Commission's principal suggestion was to standardise India's educational system to follow a 10+2+3 structure. The Kothari Commission report contained a total of 23 recommendations covering various topics. It is crucial to the quick and all-encompassing expansion of India's educational system following independence.

To accomplish all-around development and to meet the educational needs of the growing Indian population, a number of committees and commissions were established, and the Central and State governments accepted their reports. The commissions are as follows:

1. University Education Commission (1948-49) Dr. S. Radhakrishnan Commission
2. Secondary Education Commission (1952-53) Dr. Mudliar Commission
3. The Education Commission (1964-66) Kothari Commission
4. National Knowledge Commission (2009) Dr. Sam Pitroda Commission

Education Commission plays an important role for enforcing the proper and effective education policies in the education system. The outcome of the commission ensures that education policy should be useful for the public at large. Education policies observe the lacunas in the current education system and regulate the same by passing the rules through an effective education policy. It influences and analyses the scholarly studies of education policy, seeking answers to questions about the purpose of education, designed to attain the methods and tools for measuring success or failure.

The Government has formulated and implemented the following Education Policies based on the recommendations of these Education Commissions.

1. National Policy on Education (1968)
2. National Policy on Education (1986)
3. Revised Programme of Action (1992)
4. National Policy on Education (2020)

In order to implement the Kothari Commission's recommendations, the government was suggested in the National Policy on Education of 1968, to issue directives to the governments and authorities. The Parliament approved the second national policy on education in May 1986 and it was reaffirmed in 1992. The National Education Policy 2020, which replaced the National Education Policy of 1986, was approved by the Indian Union Cabinet on July 29, 2020. This new policy is focused on overhauling and revising every aspect of the educational system, including its governance and regulation. The "5+3+3+4" model will replace the learning pattern of the "10 + 2 + 3" structure and there will be three different types of higher education institutions, including research universities, teaching universities and degree granting autonomous colleges. The NEP seeks to increase student enrollment and transform all HEIs into multidisciplinary institutions.

Apex level Bodies of Higher Education

After independence, the Indian government realized that education is one of the most essential factor in establishing a modern, civilized, progressive society founded on lofty virtues. However, educating such a large population was a difficult task.

The Indian government developed a various bodies of subordinate and autonomous governing bodies to oversee the education system in India at all levels in order to ensure smooth functioning. Apex Level Bodies are in charge of accrediting programmes, promoting academic institutions and giving grants and awards to various schemes. Apex authorities routinely examine and monitor the educational landscape, make adjustments as needed and seek approval from the authorities before implementation of the policies or curriculum.

Functions of the Apex Bodies

Some of the common functions and work of the various apex bodies include:

- To ensure that uniform standards are maintained in a particular field of education in India.
- To regulate the curriculum in the training of professionals

- To regulate the level of examinations and qualifications
- To fund in priority areas, monitoring, and evaluation
- To preserve parity in certification and awards
- To standardize training programmers for professionals
- To establish minimal requirements for education and training for different categories of professionals
- To help with development, training, and research.
- To carry out various entrance tests

List of Educational Apex Bodies in India

The Ministry of Education lists the following as the top apex bodies in higher education (https://www.education.gov.in/en/apex-level-bodies) :

- University Grants Commission (UGC)
- All India Council for Technical Education (AICTE)
- Council of Architecture (COA)
- Indian Council of Historical Research (ICHR)
- Indian Council of Philosophical Research (ICPR)
- Indian Council of Social Science Research (ICSSR)

Role of University Grants Commission

UGC regulations are followed by all General Aided colleges through the university guidelines. According to an established pattern of help under various programmes, the University Grants Commission (UGC) offers financial aid to qualified colleges that are listed under Section 2(f) of the UGC Act, 1956 and have been found eligible to receive central assistance (UGC grants) under Section 12(B).

According to the UGC, Indian universities can be categorised into four groups: Central Universities and State Universities are covered under section 2(f), Deemed Universities under section 3 and Private Universities covered under Section 22 of the UGC Act 1956.

UGC has implemented a number of digital initiatives in the realm of higher education. They are as follows :

- SWAYAM : Online education programme from std. 9 to post graduation which can be accessed by anyone, anywhere and anytime.
- UGC – MOOCS : A vertical programme of SWAYAM.
- e-PG Pathshala: A programme run by the UGC as part of the MHRD's National Mission on Education via ICT (NME-ICT).
- The National Academic Depository (NAD) : It is a 24/7 online repository for all academic credentials.
- The All India Survey of Higher Education (AISHE) : It examines all the institutions providing higher education in the nation.
- Swayam Prabha: A collection of 34 DTH channels that air high-caliber educational programming around-the-clock.
- Distance Education Bureau: Open and distance education system for educating many societal groups.
- The National Testing Agency (NTA) : It administers entrance exams for fellowship and admission to higher education institutions.
- University Activity Monitoring Portal: Allows universities to upload information about the many events and activities that the UGC has been involved in.

1.6 AIDED COLLEGES

The educational system underwent significant alteration in the 20th century. To increase public awareness of education, numerous private educational institutions were founded. The Hunter Commission suggested in 1882 that secondary schools be founded by private organizations with government funding. The Indian government established the University Education Commission in 1948 to oversee the growth and development of higher education in India. In the 1960s and 1970s, the government stepped up its efforts to support higher education. In addition to creating state-funded universities and colleges, it also provided financial aid to private institutions, which ultimately led to the creation of private aided/grant-in-aid institutions.

The Government of Maharashtra, vide its GR No. 1253 dt. 28-07-1955, issued a directive regarding the grant in aid system for schools and colleges. Government had circulated many resolutions dt. 12-11-62, 13-12-62, 09-03-63, 08-01-64, 17-08-64, 12-05-66, 27-02-76, 06-01-77, 03-02-77, 21-09-77, 15-03-78, 14-04-78, 23-03-79, 01-06-79 to streamline the grant in aid system. Final revision of the formula for assessment of maintenance grant was done by the Government of Maharashtra vide its GR No. NGC-1279/157796-XXV dt. 03-10-1979 which is still followed for assessment of grants. The final amendment in Government Resolution was carried out vide GR dt. 15-01-99

Both at the primary/secondary and collegiate levels, the number of educational institutions has drastically expanded. For the purpose of streamlining and improving the department's operations, the State Government issued an order on October 31, 1984, dividing the Department of Education into the Directorate of School Education and the Directorate of Higher Education. The Directorate of Higher Education is under the direction and authority of the Maharashtra Government's Ministry of Higher Education. The Director is head of directorate of Higher Education. The assessment of accounts in aided colleges are evaluated by the Joint Director's office.

Government colleges are completely owned and controlled by the government, whereas government aided colleges are owned by private management and get aid from the government. The State or Central Government provides grants or financial aid to aided colleges. The government provides non-salary funds for maintenance costs in addition to salary grants to the aided colleges to cover staff salaries. Salary grants are disbursed by the government on a monthly basis, whereas non-salary grants are disbursed on an annual basis. No Objection Certificate from the state government is mandatory while appointing any staff in aided general colleges. Pay fixation of an employee is also done as per the norms for aided college staff. A pension plan safeguards the employees of aided colleges. They also receive all additional financial and legal perks that are available to government employees. The government plans and determines the teaching and non-teaching staffing patterns for aided colleges. The government has guidelines for how to promote any employee which is strictly followed by the general aided colleges. The college staff and college authorities

follow all the laid down rules and ordinances by the University and Higher and Technical Education Department.

Government permission is required for starting any new course or division in a college. Aided College is allowed to start an unaided division or a self finance course by following proper government procedure. But they do not receive any grant for these divisions or sections. The aided colleges accept fees from their students as per the university's prescribed fees. They follow all the norms of the university and the government too. All aided colleges are required to provide the relevant government departments with the accounting statement for audit and assessment purposes. The grants or fees cannot be used by the aided colleges for any inadmissible expense.

The Government of Maharashtra issued a Resolution no. एनजीसी /१९९९ /लेखापरीक्षण / अनुदाननिर्धारण/ मवि-१ dt.15.01.1999 regarding the criteria for admissible expenditure for aided colleges. Every year, the Department of Higher Education asks the aided colleges to submit the budget in a particular format prescribed by them.

UGC recommended vide its GR No. F.1117/83(CP)- dt. 25-11-1985 that no student shall be eligible for the award of the first degree unless he has successfully completed a three-year course; this degree may be called the B.A./B.Sc./B.Com. (General/Honours/Special) degree as the case may be, Similar to this, the MHRD-approved National Institutional Ranking Framework (NIRF) classifies Arts, Science, and Commerce colleges as General Degree Colleges.

Following is list of aided general colleges in Mumbai Region

SR.NO.	NAME OF THE COLLEGE
1	H.R.COLLEGE OF COMM. & ECO.,
2	K.C.COLLEGE
3	SIDDHARTH COLLEGE OF COMM. & ECO.,
4	SIDDHARTH COLLEGE OF ARTS, COMMERCE AND SCIENCE
5	JAI HIND COLLEGE,
6	ST. XAVIER'S COLLEGE
7	K.P.B. HINDUJA COLLEGE OF COMM.,
8	SANT GADGE MAHARAJ COLLEGE OF

9	BHAVAN'S HAZARIMAL SOMANI COLLEGE OF ARTS,
10	WILSON COLLEGE,CHOWPATTY
11	SMT. B.M.R. GIRLS COLLEGE,
12	AKBAR PEERBHOY COLLEGE OF COMM. & ECO.,
13	NAGRIK SHIKSHAN SANSTHA'S COLLEGE OF COMM,
14	MAHARASHTRA COLLEGE OF ARTS, COMM. & SCIENCE
15	BURHANI COLLEGE OF COMM. & ARTS,
16	SOPHIA COLLEGE FOR WOMEN
17	LALA LAJPATRAI COLLEGE OF COMM. & ECO.,
18	MAHARSHI DAYANAND COLLEGE OF ARTS, COMM. &
19	G.E.S.'s Dr.T.K.TOPE ARTS & COMM. NIGHT COLLEGE,
20	S.I.W.S.'s N.R.SWAMI COLLEGE OF COMM., & ECO.,
21	Dr. AMBEDKAR COLLEGE OF COMM. & ECO.
22	D.E.S.'s KIRTI M.DOONGURSEE COLLEGE ARTS,COMM. & SCI.
23	SMT. MANIBEN M.P.SHAH WOMEN's COLLEGE OF ARTS
24	G.N.KHALSA COLLEGE,
25	RAMANARAIN RUIA COLLEGE OF ARTS & SCIENCE,
26	D.G.RUPAREL COLLEGE,
27	R.A.PODAR COLLEGE OF COMM., & ECO.,
28	GURU NANAK COLLEGE OF ARTS,SCIENCE AND COMMERCE
29	SOUTH INDIAN EDUCATION SOCIETY'S ARTS, SCI, & COMMERCE
30	SOUTH INDIAN EDUCATION SOCIETY'S COLLEGE OF COMMERCE AND ECONOMICS
31	VIVEKANAND EDUCATION SOC'S COLLEGE OF ARTS,
32	SREE NARAYAN GURU COLLEGE OF COMM., & ECO.,
33	MAHATMA EDUCATION SOCIETY'S NIGHT COLLEGE
34	N.G.ACHARYA & D.K.MARATHE COLLEGE OF ARTS, SCIENCE AND COMMERCE
35	K.J.SOMAIYA COLLEGE OF SCIENCE & COMM.,
36	K.J.SOMAIYA COLLEGE OF ARTS & COMM.
37	RAMNIRANJAN JHUNJHUNWALA COLLEGE OF ARTS,
38	SMT. P.N.DOSHI WOMEN'S COLLEGE,
39	VIKAS COLLEGE OF ARTS, COMMERCE AND SCIENCE (NIGHT)
40	ASMITA COLLEGE OF ARTS & COMM.,
41	N.E.S.'S RATNAM COLLEGE OF ARTS SCIENCE & COMM.,
42	V.K.KRISHNA MENON COLLEGE OF COMM., & SCIENCE,
43	RAMANAND ARYA D.A.V.COLLEGE
44	V.G.VAZE COLLEGE OF ARTS, SCIENCE & COMM.,

45	MULUND COLLEGE OF COMM.,
46	CHETNA'S HAZARIMAL SOMANI COLLEGE OF COMM., &
47	ST. ANDREW'S COLLEGE OF ARTS SCIENCE & COMM.,
48	RIZVI COLLEGE OF ARTS, SCIENCE & COMM.,
49	R.D.NATIONAL COLLEGE
50	SMT. M.M.K. COLLEGE OF COMM. & ECO.
51	L.S.RAHEJA COLLEGE OF ARTS & COMM.,
52	SATHAYE COLLEGE,
53	M.L.DAHANUKAR COLLEGE OF COMM.,
54	V. P. M. S -- L.J.N.J.MAHILA MAHAVIDYALAYA
55	MITHIBAI COLLEGE ARTS, & CHOUHAN INSTITUTE OF
56	N.M.COLLEGE OF COMM.,
57	MANIBEN NANAVATI WOMEN'S COLLEGE
58	SHRI RAJASTHANI SEVA SANGH COLLEGE OF ARTS
59	SHRI CHINAI COLLEGE OF COMM. & ECO.
60	SHETH L.U. AND S.M.V. COLLEGE OF ARTS,SCI., & COMM.
61	TOLANI COLLEGE OF COMMERCE
62	C.E.S.'S VALIA COLLEGE OF ARTS, & COMM.,
63	BHAVAN'S COLLEGE,
64	J.M.PATEL COLLEGE
65	VIVEK COLLEGE OF COMM. & ECO.
66	S.S. AND L.S. PATKAR COLLEGE OF ARTS,COMM. & SCI.
67	D.T.S'S COLLEGE OF COMM.,
68	GHANSHYAMDAS SARAF GIRL'S COLLEGE OF ARTS & COMM.
69	P.D.LIONS COLLEGE OF COMM., & ECO.,- DALMIA
70	SHRI M.D.SHAH MAHILA COLLEGE OF ARTS & COMM.
71	SMT. K.G.MITTAL COLLEGE OF ARTS & COMM.
72	NAGINDAS KHANDWALA COLLEGE OF COMM. & ARTS.
73	BAL BHARATI COLLEGE OF COMM.,
74	KANDIVALI EDUCATION SOCIETY'S COLLEGE
75	G.E.S's SHRI BHAUSASHEB VARTAK ART'S, SCI.& COMM.
76	SHAILENDRA EDUCATION SOCIETY'S ARTS, SCI.,
77	S.K.SOMAIYA COLLEGE, VIDYAVIHAR,
78	BORIVALI EDU. SOC'S COMMERCE COLLEGE
79	PUBLIC NIGHT DEGREE COLLEGE
80	ADV. DESHPANDE NIGHT COLLEGE

Table 1.1 : List of aided general colleges in Mumbai Region

1.7 COLLEGE ADMINISTRATION

In the aided colleges, management is the top most authority. The governing body of the college recruits the Principal, teaching and non-teaching staff to carry out all the functions of the college after following the laid down procedure by the government. All the staff members are bound by the rules and regulations as per the compendium of the university and MCSR rules. Management forms the internal policies to streamline the college's work as per the government norms. The Principal is in charge of all academic and administrative activities at the college. A group of people who are in charge of making and implementing rules and regulations is referred to as the administration. It is a task that oversees all activities of an organisation. It is the procedure for planning and managing a variety of tasks within an organization. It carries out many policies and makes them effective for efficient organization-wide operation. It oversees an organization's daily operations. Each branch of administration, which is a broad field with several subfields, requires particular talents.

Organogram of College Administration

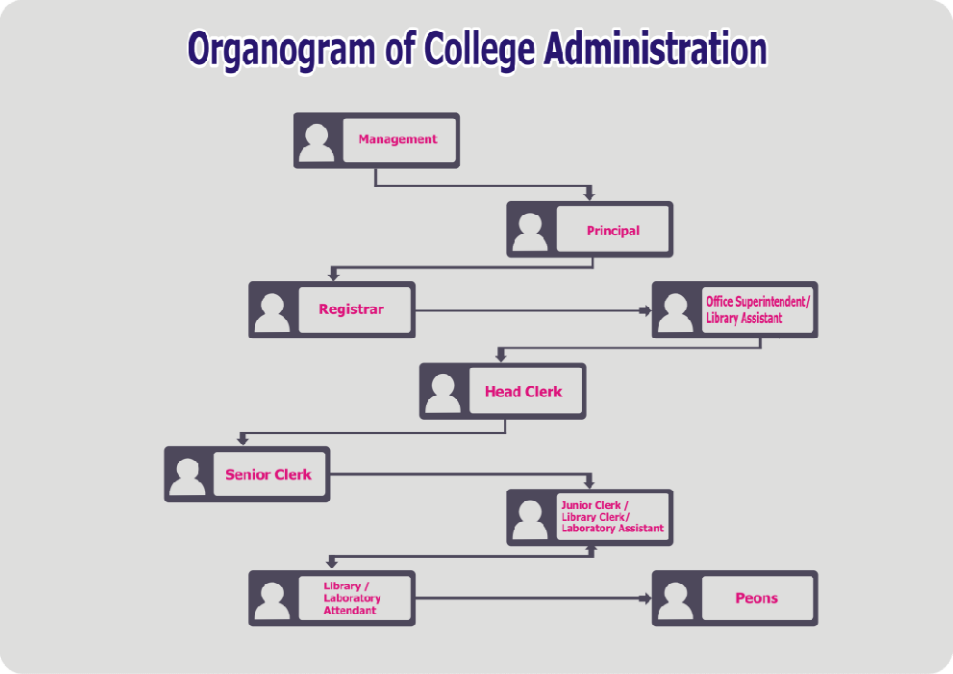


Figure : 1.4 Organogram of College Administration

Role of College Administration

The college administration is a group of college employees who are in charge of the day-to-day operations of the colleges. In order for the college's everyday operations to run smoothly, the administrative staff's tasks and responsibilities are crucial.

Administration is considered as the backbone of any college, which involves almost all functions of the college as:

- Guidance, Admissions, Examination, Results of the students
- Distribution of various types of certificates to students
- Recruitments, approvals, workload, attendance, fixation of pay, pay roll, retirement procedure etc. of the college staff.
- Maintenance of official records and documents
- Maintenance of college printing and stationary
- Maintaining the safety and security of students
- Maintenance of college buildings
- Maintenance of all infrastructural facilities
- Maintenance of documentation and audit of financial flows.
- Keeping records of all statutory requirements.
- Public affairs include interactions with students, parents, the government, and the courts.
- Work allotted by the university or government from time to time, etc

Wings of College Administration

College administration can be mainly divided into the following types

Student Administration: The main focus of any educational institution is its students. The administration of students is the heart of an institution's operations. A well-managed system that follows best practices offers many benefits to the students. The administrative staff plays an important role during a student's journey through the college. Maintaining a good infrastructural facility is beneficial for making the students feel comfortable while studying at college, and providing prompt and perfect services is the primary responsibility of administrative staff. The administration of the college, solves students' non-academic problems, reduces the risk of errors and student complaints, and also improves student satisfaction. Students first interact with the administrative staff at the time of admission and last interact in the final year for results. Even after completing their studies from college, the students approach the college administration for various types of certificates.

Human Resource Administration : The management of human capital inside a college is referred to as "Human Resource Administration." The government has established a specific procedure for the appointment of any staff at the college. It is the duty of the HR administration to follow the same procedure while appointing the staff. They need to get it approved by the authorities and fix their pay as per the guidelines of the government. It is the HR administration's primary responsibility to keep a track of personnel approvals, salaries, educational advancements, leave, service book, and so on throughout their tenure at the college.

Maintenance Administration : It is important to maintain the infrastructure of an institution for its effective running. Thus, it is vital to keep a check on all the maintenance activities such as cleaning, effective implementation of annual maintenance contracts, repairing, purchasing, and maintaining assets, etc.

Financial Administration : Financial administration is made up of operations whose goal is to make funds available for college activities ensuring simultaneously that they are used lawfully and efficiently. It is a dynamic process which involves acceptance of various fees from the students, preparation and execution of the budget, regularize the expenses, disbursement of salaries, grant assessment etc.

Legal Administration: It looks after the operations of legal departments within colleges and is related to the university and the government. It solves the disputes among the staff members. It also handles the court cases involving the college. It systematically maintains all the records and correspondence of any legal matter pertaining to the college.

External Administration : This is a type of administration that looks after the external affairs of the colleges. External Administration primarily refers to work related to the government department, office of the Director or Joint Director of Higher Education, Universities, UGC, AISHE, Social Welfare offices, Banks, and so on. Whenever these external agencies ask for any information, it is provided to them through an online portal. Similarly, many statutory reports are filled up on the respective agency's digital portal. This results in reducing lengthy procedures of paper work and saves the environment too.



Figure : 1.5 Wings of College Administration

Effective College Administration

An effective administration is a valuable asset to any college. It is a link between many sections of the college, ensuring that information flows smoothly from one to the other. Subsequently, without excellent administration, an organization would be unable to function professionally and efficiently. It is a method of organizing, coordinating and planning with the goal of meeting the demands of all stakeholders.

Strategies for effective administration in colleges :

1. Revenue Management
2. Student Management
3. Goal Management
4. Performance Management
5. Leadership Management
6. Skill Management
7. Team Management
8. Problem Management
9. External Management
10. Human Resource Management
11. Risk Management
12. Relationship Management
13. Translucent Management

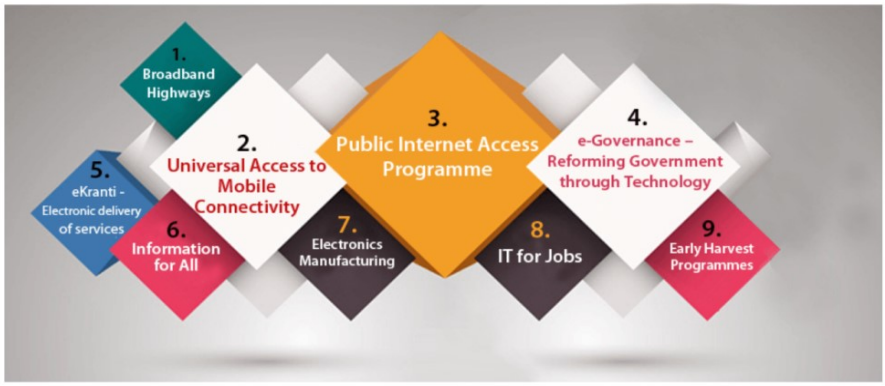
Thus, effective administration refers to coordinating, communicating, and making use of all the available resources to achieve the targets. College administration handles various sections of the college related to management, government, students, staff, parents, outsiders, etc. which requires perfect interpersonal coordination.

1.8 DIGITAL COLLEGE ADMINISTRATION

Two decades ago, digitalization began in India, when enterprises having internet websites were seen as highly valuable. This transition was prompted by the dot-com boom, when people were investing naively in firms that ended in ".com." This resulted in a windfall for Indian IT firms. Furthermore, the Indian government sought to implement an E-governance project in 2006, however the pilot was not very

effective. In 2015, the "Digital India" initiative was launched with the same goal of digitalizing India and boosting its economy. It exceptionally accelerated the revolution and altered nearly every area of government. In order to help overcome the physical hurdles and expenses, digital administration has been implemented in a variety of industries. The goal of digital India is to transform India into a knowledge economy and provide its inhabitants with effective e-governance through the coordinated and planned participation of the entire government. The following three major aspects are at the center of the concept of a "Digital India."

- Digital infrastructure as a core utility to every citizen
- Governance and services on demand.
- Digital empowerment of the citizens.



(https://digitalindia.gov.in/content/programme-pillars)

Figure : 1.6 Pillars of Digital India

The government-wide programme known as "Digital India" involves numerous ministries and divisions. It unites a sizable number of concepts and ideas into a single, all-encompassing vision, enabling each to be carried out as a component of a bigger goal. The nine growth pillars that Digital India aims to strengthen include Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology, e-Kranti - Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs, and Early Harvest Programmes. Each of these areas is a substantial project involving multiple Ministries and Departments. In a digital office is a workspace

where data is electronically organised, saved and made readily available. Document imaging enables users to view a computer-generated image of the document rather than the real paper.

By offering a wide variety of high-quality public services, it is anticipated that the expansion of many public services to the private sector, such as health, medical care, welfare, culture, transportation, disaster prevention, education and so forth, will enhance the general quality of national life. The convenience of the stakeholders, the simplification of the administrative process increased efficiency and transparency, increased productivity, data preservation from natural disasters, theft or loss and easier record retrieval are all benefits of digital administration, which also keeps the organization abreast of industry trends.

In a typical workplace, digital administration refers to a system that converts paper activities into electronic processes, with the goal of creating a paperless office. It involves the use of electronic technology that generates, stores and processes data in the administrative works. This information and communication technology tool aims to improve performance and productivity. The administrative processes have improved, becoming more clear, dependable and effective as a result. Both intra-office and inter-office communication can be a part of any organization's digital administration. Any digital administration solution should put the needs of the customer before those of the business, eliminate reliance on particular people, and include open working procedures. Digital administration is the process of using communication and information technology to deliver services, exchange information, carry out transactions and integrate already-existing services and information portals. It is nothing but a movement from traditional paper works to digital documents.

Advantages of Digital Administration:

Speed : The development of technology has accelerated communication. Large volumes of data may now be sent instantly across the globe thanks to smartphones and Internet.

Cost saving : Purchasing official stationery represents a considerable amount of office spending. A lot of paper is used for letters and other written documents. However, using smart phones, the internet, and ERP software in their place allows for cost savings on an annual basis.Similarly less man power is required in digital administration. This saves the expenditures on salary.

Transparency: The use of digital administration promotes openness across all of an institution's operations. The internet and websites provide access to all the necessary data. Stakeholders have access to any information they desire at their convenience, whenever they desire it.

Accountability: Transparency and accountability go hand in hand. Stakeholders can hold an organisation accountable for their actions once their website makes their operations readily accessible.

There are certain disadvantages also such as:

Loss of Interpersonal Communication: The primary drawback of digital administration is the loss of interpersonal communication. Interpersonal communication is regarded by many as being crucial to communication.

High setup costs and technical challenges : There are two downsides of technology. The gadgets need to be regularly repaired, and the setup expenses are very high. When computers and the internet malfunction, it can disrupt work and services.

Illiteracy: Many people are technologically ignorant and have no idea how to use computers and mobiles effectively. Accessing and understanding digital administration is difficult for them.

Cybercrime/Leakage of Personal Information :A data leak can make the public doubt the government's ability to control the serious problem of cybercrime.

Innovative digital technologies have been discovered to be an effective change and transformation support tool in the education sector. The use of information technology and the internet promotes collaborative learning in geographically distant groups, which enhances educational advancement. These administrative applications, also known as office automation or digital administration, have continued to facilitate and

promote quick and prompt access to and transfer of information resources located all over the world.

Digital Administration in Aided Colleges

The digitalization of higher education institutions is rapidly progressing. In digital administration, all the administrative activities are to be performed on a digital platform. The goal of digital administration is to increase opportunities for positive learning and understand the easy way of administration. Access to learning materials, communication, and cooperation amongst different interest groups are all changing as a result of digital administration. Digitalization can assist you eliminate time-consuming administrative procedures. The college administration can access information whenever and wherever they need to by using digital administration. It enables the college administration to finish the assignment quickly. It is vital to evaluate the administrative staff's training requirements and development plans before implementing the digital administration. Digital Technology in College Administration is a need of the modern era. It is necessary to create an awareness about the utilization of digital administration among administrative staff. Traditional methods are viewed as non-interactive since they tend to be manual process focused. However, ICT-enabled solutions can enhance communication between administrators, teachers and students, which could benefit higher education institutions.

Education, teaching, methodology and administrative activities have all changed drastically during the last four decades. Digital technology has compelled higher education institutions to radically alter their practices. Certain elements are seen to be driving forces in HEIs' use of ICT, which can be demonstrated using various methodologies. Some of the methods are: the incorporation of new technology, a collaborative learning environment, open administration, a surge in internet usage and the accessibility of online resources.

Digital administration helps in improving the functional effectiveness of the college system. It helps in improving various administrative tasks. The Online College Management software is made with time-saving and administrative staff workload reduction in mind. In-depth coverage of all college administrative duties is provided in this. It aids in maintaining records and their keeping. The management, principal,

teaching staff, administrative staff, students, parents, society, etc. can all benefit from the use of digital technology in college administration. It supports timely and effective communication with stakeholders. It is a process of accepting the changes for the betterment of the institution and expecting fruitful results from the process. It also requires sincerity and dedication towards the steps of full digitalized administration.

Digital administration in colleges gives a full set of user-friendly management tools in the hands of teaching and non-teaching staff to help maximize effectiveness and ensure student progress and success. The advancement and availability of information and communication technologies in college administration have enhanced and widened the influence of information resources at their fingertips, while simultaneously emphasizing the importance of effective and efficient services. Some of the digital facilities or resources that can be employed for efficient administrative operations and services in general aided colleges are listed below.

Computers: The computer might be referred to as the digital age's backbone. To perform properly in virtual ICT applications, the computer must interface with other devices. A computer network is an interlink between multiple computers that allows them to share software, hardware, and data via transmission. There are no restrictions on the location of two computers in a network. It improves communication skills.

Internet facility: The term "internet" refers to a global network of computers and people. The internet, which is based on cutting-edge technology, allows thousands of disparate physical networks that are not connected to one another and employ different hardware technologies to interact and communicate as a unified system. On a computer system connected to the internet, there are destinations for various types of information. It's a crucial tool for international online services.

Enterprise Resource Planning (ERP) system : Colleges employ enterprise resource planning (ERP) as a management and integration tool to coordinate and manage all of its operational components. The advantage of the ERP software systems for colleges is that they help the administration implement resource planning by combining all of the processes necessary to run their businesses into a single system.

The College Management System is generally used in college administrative procedures. It is an ERP software that allows colleges to manage and streamline all core activities with precise reports on admissions, fees, enrollment, examinations, results, grade cards, attendance, library books, communication, alerts, various certificates, and students' performance reports, among other things. With the most recent technology stack, including biometrics, business intelligence tools, and analytics dashboard, it streamlines offline procedures. It is a complete system for colleges that automates college administration to improve institutional performance and operational effectiveness. ERP software is necessary for colleges to effectively track, organize, and manage their administrative tasks. This software is able to incorporate entire organization's administrative procedures under one roof. However, the first need is to train the staff for the use of modern technology. It is important that the technology used for this be very simple and specific in order to be easily usable and manageable. The most crucial components of ERP administration is monitoring and updating. Digital technology produces, stores and processes data as a series of binary digits. Machine intelligence is increasing as a result of digital technologies. In some circumstances, machines no longer need human involvement to function, freeing workers from frequently tedious and repetitive duties and enabling them to engage in more fascinating activities. For college office automation, there are many different kinds of software and solutions available, which helps to lessen the monotonous job pressure and duplication of labor.

Technical Support: Technical assistance is a crucial component of digital management. It resolves the administrative college's technical problems. The technical team's assistance and expertise are essential to the effective operation of the ERP system. It looks after the software as well as hardware requirements of an institution. It reduces expenses related to IT. It also helps to improve productivity and customer satisfaction.

Need of Digital College Administration

Digital Administration in colleges is important for data processing, storage and transmission. It provides for the efficient transmission of all types of information in digital forms, as well as for the multiuse of data. The administrative system manages all the records related to the students and staff. To maintain these records, the college

authorities needs to distribute this work among the various administrative staff and also requires to manage the resources and infrastructure for the same. To operate all these tasks on a digital platform become very challenging for the general aided colleges.

In the COVID 19 situation, educational institutions have switched over to paperless, digital administration for managing their work from home. The managements have trained their staff to use digital administrative technology through online meetings. The Government of Maharashtra also approved the electronic uses as an authentic source vide their circular dated 05-06-2020, so that all the Government circulars and resolutions are circulated through emails and modern media like what's app. This pandemic is the best answer to why digital administration is imperative in administrative systems. It promotes and highlights the need of digital administration.

For the following reasons, any college that wants to run their administrative activities efficiently should use a cloud based digital administration.

- To reduce manual work
- To avoid duplication in the work
- To synchronize the operations of academic and administrative department
- To generate the reports for all the modules
- To secure the administrative data
- To easily access the data
- To use proper integration data
- To increase operational efficiency
- To standardize an effective checklist
- To accelerate data sharing
- To implement modern web technologies
- To work and support 24x7
- To administrate seamlessly.
- To have a centralized platform

It is very much important for the management to implement a user-friendly digital platform in the administrative system to function their administrative process evenly, fairly and efficiently.

Challenges in Digital Administration

The use of digital technologies to create useful administrative skills is known as digital administration. The goal is to improve efficiencies, maintain transparency, and provide more personalised customer service on a regular basis. Digital administration is based on digital platforms such as ERP solutions, which can benefit every angle of the organization. These tools assist organisations in improving their working patterns. When a technological change occurs, the organization and the staff face some challenges which have an effect on the expansion of the organisation. The growth of the organization depends on how tactfully they handle the challenges and resolve the issues. Management of funds is essential for any technological development and to meet the infrastructural challenge. The aided general colleges depend on government grants and student fees for their income. The source of income is very small and indefinite to face this challenge. Colleges are required to put their best efforts into the development of digitalization to compete in the current trend of digital administration.

Although there are various uses for digital technology, it has many challenges as well. Some of them are as follows:

- Lack of ICT infrastructure
- Lack of dedicated IT skills
- Lack of confidence
- Lack of interest
- Lack of technical support
- Lack of defined strategies
- Lack of funds
- Lack of knowledge
- Lack of initiative
- Lack of appreciation
- Lack of awareness
- Lack of follow-up
- Lack of mindset

Most institutions face some of the above-listed challenges. Because of the aforementioned challenges, the authorities are finding it difficult to implement digitalization. There is a resistance among the staff to shifting from traditional to modern digitalized systems. The high cost of setting up and establishing the updated software, as well as the cost of infrastructure investment for organizations, make ICT implementation in educational institutions one of the most difficult challenges.

In spite of the hurdles in the way, educational institutions are accepting the challenges and moving ahead towards digitalization for the betterment of the institutions and to compete in the world-class education system.

Avenue of College Digital Administration

A college's administration can be fully digitalized if the following tasks are managed on a digital platform.

Student management tasks : Admission can be pursued by scanning the QR code on the adharcard or marksheet to obtain accurate and authentic information about a student. An RFID identity card can be introduced for students, which manages entry and exit in the various departments of the college with the facility of rating for the services rendered by the college staff. All the academic records of the college can be preserved on Digilocker. An alert, SMS facility and a complaints/suggestions box can be formalized through the college app.

Human Resource management tasks : An app can be developed where the personal documents of an employee like pan card, adhar card, educational qualification, appointment letter, approval letter, etc. can be stored and made easily available to that particular employee and the authorities. Leave management can also be maintained on a digital platform.

Financial management tasks : Income and expenditure can be processed on a digital platform which will be directly connected to the accounting package. This will help the college to work out the budget, income and expenditure and balance sheet of the college. Online financial transactions for income and expenses are the need of the digital era.

Legal management task : According to the Maharashtra government resolution dated 14.02.022, writ petitions and appeals should be filed in the court using an e-system. The colleges should also develop a software which will alert them about the litigation matters and keep the information ready as and when required.

Office management tasks : An all inclusive app for administrative work related to students, staff or others should be installed that will be on the cloud, so that it can be accessible from anywhere and work should be linked to avoid duplication.

External management tasks : Due to the Digital India project, the government has initiated the digitalization of their offices. Using this, even colleges can commence maximum work related to government departments via a digital portal. Communication with external stakeholders like parents, university, directorate office, etc. should be initiated through digital technology only.

Prospective college administration through digital technology

In future administrations, the concept of paperless administration will be replaced by humanless administration. Due to artificial intelligence technology, computer science places an emphasis on the creation of intelligent machines that work and react like humans. The current trend of automation is named Industry 4.0, which includes the internet of things alongwith cloud and cognitive computing. If all the colleges follow the same process and the same digital platform for the administration, then it will be worked through the process of data warehousing, data mining and big data analysis and all the information related to students will be stored at one place on the cloud.

Blockchain connectivity will also be useful for the distribution of data between the different departments of a college. Robotic process automation will help the organisation to manage the websites, applications, software etc.

These are the effective terms in the current scenario, which is useful in a sector like banking, where there are various branches. Similarly, the data of different universities and colleges can be stored in one place on a digital platform with a security code, which will be useful in the journey of a student. As per the education policy, a student has multiple entry and exit points in their academic journey. The student can take admission anywhere and anytime. These digital platforms make this journey beatific and easy for the students and for the educational institutions also.

Though all the automation systems reduce manpower requirements, monitoring is required. Similarly, some critical college administrative work will not be possible without the actual presence of the staff.

1.9 DEMOGRAPHICS OF MUMBAI REGION

Ten regional offices were established around the state to monitor the functioning of colleges in their respective regions as a result of the organization's decentralization by the Director of Higher Education department. The Mumbai Division is the administrative home of the two districts that make up the Mumbai Region: Mumbai City and Mumbai Suburban. The Mumbai Suburban District formerly belonged to the Mumbai City District. Mumbai City and Mumbai Suburban were created as separate revenue districts on October 1, 1990, following the separation of Greater Mumbai into these two areas.Bandra to Dahisar, Kurla (Chuna Bhatti) to Mulund, and Kurla to the Trombay Creek are all included in the Mumbai Suburban District. The administrative hub of the Mumbai Suburban District is Bandra (East).

The Mumbai Suburban District has a total land area of 369 square kilometres. South Mumbai, Old Mumbai are recongnised as Mumbai city district. It extends northward from Colaba to Mahim and Sion. The city spans 157 square kilometres of land in all.

As per the census, the literacy rate in Mumbai is 89.78%, which is greater than the national urban average of 85%. Male and female literacy rates in Mumbai were 92.58% and 86.53%, respectively. The total number of literates in Mumbai UA was 14,854,433, with 8,242,697 males and 6,611,736 females.

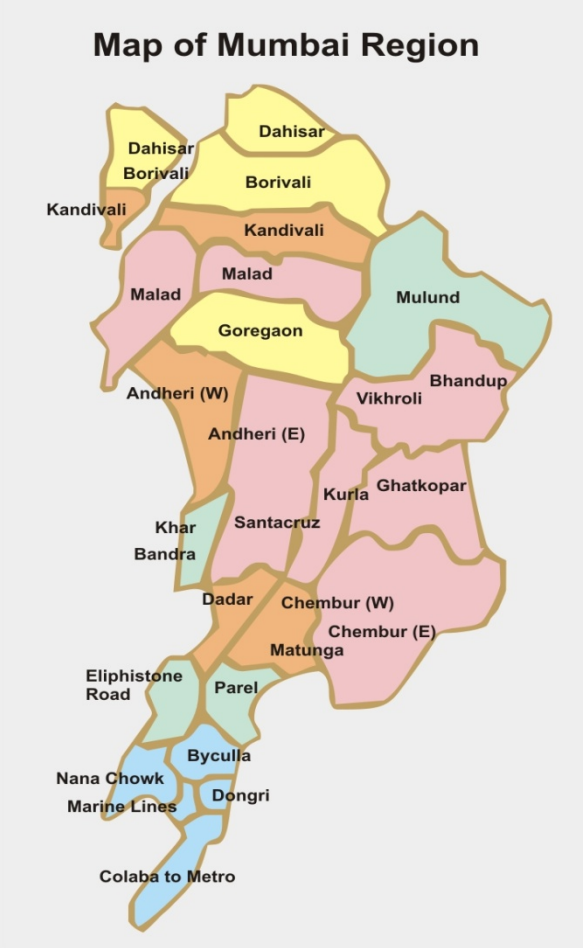


Figure : 1.7 Map of Mumbai Region

1.10 STRUCTURE OF THESIS

The thesis is divided into the five chapters listed below.

1.Chapter One: Introduction

The chapter introduces the complete research conducted, as well as different aspects of the study. This covers all the key words, which are highlighted in the title and the entire study. This chapter consists of information about the historical track of education, digital administration in aided colleges

2. Chapter Two: Literature Review

This chapter's sole purpose is to help you understand the concepts and hypothesis that have been developed for the current research. As a result, the entire chapter of literature review has been planned to provide the theoretical background of the research as well as communicate the basic ideas of the important terms referred to in the study. Some important reviews of the literature are mentioned in this chapter to conclude the research gap.

3. Chapter Three: Research Methodology

The research design, objectives, hypothesis, data collection, and pilot study are all described in this chapter. It also narrates the sampling techniques, reliability and validity techniques. This specific technique enables to identify,select,process and analyze the information of the topic.

4. Chapter Four: Data Analysis and Interpretation

The chapter focuses on the core topic of data analysis and interpretation. It also narrates the statistical tools used for hypothesis testing. This chapter also discusses the results of hypothesis testing, which is helpful for the final conclusion of the research work. It also provides answers to the research questions postulated in this study.

5. Chapter Five: Conclusions and Recommendations

This chapter stated about the information about the steps of digital administration in general aided colleges through a graphic representation, break down the research into more comprehensive findings. The research confirms the hypothesis from various perspectives. The researcher drew the study's conclusions based on the findings. It also gives recommendation for further research work.

CHAPTER 2

REVIEW OF LITERATURE

2.1 INTRODUCTION :

The literature review of the research is indispensable for any study that provides a summary of previous researches in this field. This enables a researcher to pick up the thread in a research area that has already been conducted and enrich the knowledge in that area of study. Furthermore, the researcher, can avoid duplication in the area of study. A literature review extends in the scope of the study, allowing diverse perspectives to be considered. In order to undertake the present research work, step by step, the researcher has reviewed the literature with reference to various thesis, journals, magazines, books, government websites, reports, etc., so as to find out the related context to the research and identify the research gaps. This made it simple to focus the research on a specific aspect that is most relevant to the thesis. These aspects are as follows:

i) Higher Education
ii) Aided General Colleges and their administration
iii) Digital Technology

In this chapter, the researcher has documented the historical course of India's education system, with a focus on higher education. The researcher has also notified the information on college administration and the significance of digital administration in general aided colleges. In order to assess the value, efficacy, and knowledge of digital administration in General Aided Colleges in the Mumbai Region, the researcher has conducted a study.

2.2 HIGHER EDUCATION

India has a long and esteemed history. The higher education system in the country has evolved rapidly, notably when we compare it with the post-independence period. At the time of independence in 1947, there were 19 universities and several hundred affiliated colleges. The higher education system in the country expanded quickly after the independence. In 1980, there were 4738 colleges and 132 universities, with an

enrollment rate of about 5% and of those who qualified for higher education. While India's higher education system now ranks third in the world in terms of enrollment (after China and the USA), it tops the list in terms of total institutions with 17973 (348 universities and 17625 colleges). Institutions are more than four times as high as those in both the United States and all of Europe combined. Only over 2,500 schools provide higher education in China, which has the greatest enrollment worldwide (almost 23 million students). When compared to the average enrollment in higher education institutions in India, which is only 500–600 students, the US, Europe, and China often have 8000–9000 students enrolled. As a result, the higher education system in India is more dispersed and challenging to manage than any other higher education system in the world.

The nation's higher education system includes a variety of universities and colleges. In terms of academic, governmental, and economical frameworks, they differ. State legislatures or a parliamentary act of the United Kingdom can both create universities. State universities are those created by state legislatures, while central universities are those created by an Act of Parliament. The central government grants the deemed to be university designation to some institutions of higher learning through gazette announcements. The Parliament and state legislatures create a selected few institutions to serve as institutions of national significance. Universities are institutions that award degrees and are recognized as universities and important national institutions.

The universities provide postgraduate education and carry out research, whilst colleges mostly concentrate on undergraduate education. There are also several organisations, such as the Indian Institutes of Management (IIMs), that solely grant diplomas. However, these certifications are regarded as being equivalent to university degrees. Majority of the colleges and universities provide diverse programmes, although others are solely available in one field, including agriculture, law, technology, language, medicine, etc. There are other open universities that exclusively provide distance learning options.

Around 1980, the expansion of higher education was mostly restricted to humanities, sciences, and business. In addition to promoting higher education by establishing

universities and colleges, the government also took over the private sector's organizations. These were referred to as grant-in-aid institutions or private aided institutions. While the private sector was responsible for the majority of the capital expenses in such institutions, the government provided subsidies to cover a portion of the recurrent costs and salary expenses of the staff. The 1980s saw an unprecedented increase in the demand for high-quality, industry-relevant higher education, placing a heavy burden on state resources. Additionally, there was a demand from the society, who could afford to pay greater tuition costs. When faced with this circumstance, the state was forced to accept private enterprise's entry into the higher education sector.

Early 1990s economic changes led to an expansion, youthfulness, and wealth of the society. The country's entrepreneurship increased as a result of these measures. The private higher education in India grew more quickly than the average due to rising demand for higher education and an expanding entrepreneurial culture. A hand-full of universities and colleges were established in the government sector during this time, and even fewer were placed under the umbrella of government finance. This time period can be seen as the government's complete retreat from increased oversight of higher education in the nation.

Up until the late 1990s, associated colleges were the main focus for the expansion of higher education. By that time, a large number of private unaided college promoters had come to understand how the state and affiliated university's regulatory framework was restricting their ability to grow and fully capitalize on the market. So, such institutions looked for ways to evade the control of the state governments and the affiliated universities. To obtain the authority to confer degrees, certain organizations followed the path of being perceived as universities.

In India, new categories of higher education providers began to appear after 1980. The number of private institutions increased, distance learning programmes gained popularity, public universities and colleges began to self-finance their programmes, foreign institutions began to offer courses on their own or in collaboration with Indian institutions, and the non-university sector expanded quickly during this time.

In the years following 1980, a few reputable religious and charity trusts established institutions for philanthropic reasons. Many minority communities initiated to start up the colleges to provide the higher education to their respective communities. Government also permitted 50% of reservation in admission for the minority students in the minority instiutions. As per Article 30 of the constitution, linguistic and religious minorities have the right to set up and manage academic institutions of their choice. The state shall not make any distinctions in granting aid to any entity because it is managed by a minority. The protection of religious and ethnic minorities' privileges is at the centre of India's democratic principles. Most other institutes of higher learning were founded by individuals or family groups. These became referred to as private unaided institutions since they were not financially dependent on the government, which is preferred to provide digital services to their stakeholders.

Higher Education in Maharashtra

In India, the higher education landscape is changing quickly. In every state, private universities and educational institutions have proliferated over the past ten years. In order to create a worldwide, industry-focused global education system, it is imperative to place a strong emphasis on educational quality.

The third-largest state in India is Maharashtra. As a result, the education sector is highly valued by all the interested parties. Because of this, Maharashtra is now developing some of the most impressive educational institutions and infrastructure.

The state government has also constructed a number of educational institutions in addition to private ones. One of the biggest universities in the world is the University of Mumbai which is situated in Maharashtra. In addition, Nagpur, Ahmednagar, Kolhapur, and Aurangabad are proud to have excellent educational facilities. Maharashtra has a nearly 83 percent literacy rate, with nearly equal rates for males and females. Pune has always prioritized education and school infrastructure among its 35 districts. Having been founded in 1854, the College of Engineering in Pune is the third-oldest college in Asia. Maharashtra has played an important role in developing higher education in India and in the creation of India's new educational system. Maharashtra is well aligned to provide both significant exposure and better

employment prospects due to its good infrastructure. The key is to participate in ensuring that the entire infrastructure functions as a monoeco-system.

It is necessary to create a system that can bring together the desires of youth and the objectives of industry and business in order to use expertise, investigation and growth of the state. This can be accomplished with state government backing in the form of sufficient funding, favourable rules, ICT investment opportunities, and well-planned and controlled private agency engagement efforts.

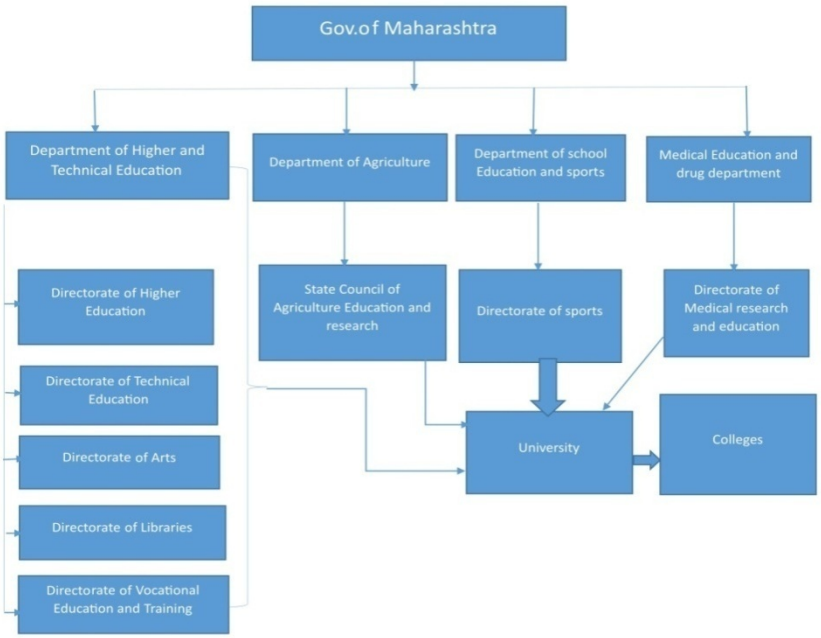


Figure : 2.1 Government of Maharashtra - Higher Education Departments

2.3 HIGHER EDUCATION DEPARTMENT OF INDIA

The importance of higher education sustained in every era in India. Universities such as Nalanda, Takshshila, and Vikramshila were renowned institutions of higher study in ancient India. Students from distant nations were welcomed here. In present times, India has one of the largest higher education system in the entire world. Central universities, state universities, deemed-to-be universities, and university-level institutions are the four categories into which higher education institutions currently fall.

The number of colleges and universities has significantly increased since the country's independence. The general development of the foundational infrastructure of these educational institutions is within the policy and planning purview of the Ministry of Education (MoE). The Department is in responsibility of expanding access to higher education and enhancing its quality through prestigious universities, colleges, and other institutions as part of a planned expansion process. One of the Department of Higher Education of India's most important responsibilities is to use cutting-edge technology to promote education in India, improve educational quality, and support academic reforms.

The following goals were prioritized by India's higher education department:

• To improve chances for all qualified people to pursue higher education, with a special emphasis on the most vulnerable population.

• To increase the input through supporting already-existing institutions, creating new colleges, and assisting state governments, non-governmental organizations, and civil society which is enhancing government initiatives to address present regional or other inequalities.

• To start policies and programmers that will support research and innovation, as well as to inspire both public and private organizations to expand the boundaries of knowledge.

• To improve the governance of higher education institutions, promote academic reforms, increase infrastructure and faculty investment, and restructure institutions to accommodate formerly underserved communities.

2.4 **UNIVERSITY GRANTS COMMISSION (UGC)**

(https://www.ugc.ac.in/)

The University Education Commission, headed by Dr. S. Radhakrishnan, was set up soon after India gained its independence in 1948 to report on the country's university system and make recommendations for improvements and extensions that would be desirable to meet the needs and aspirations of the nation now and in the future. In

order to manage any cases involving the distribution of aids from public funds to these central universities and other such institutes of higher learning, University Grants Commission plays an important role. In 1952, the Union Government resolved to send those cases to the University Grants Commission. Thus, on December 28, 1953, the University Grants Commission was formally established by the late Shri Maulana Abul Kalam Azad, the ministry's minister of education, natural resources, and scientific research. The UGC, on the other hand, was established as a statutory organization of the Government of India in November 1956 by a Parliamentary Act for the coordination, selection, and maintenance of university education standards in India. In order to ensure enough region-wise coverage throughout the nation, the UGC dispersed its activities by establishing six regional centres in Pune, Hyderabad, Kolkata, Bhopal, Guwahati, and Bangalore.

A university in India is defined as any institution that may be recognized by the University Grants Commission (UGC) in partnership with the university in question, in accordance with the regulations published in this regard under the UGC Act, 1956. Millions of students use these portals every year to complete their graduate and postgraduate education, both locally and abroad. The Center and the States share responsibilities for higher education. The coordination and establishment of standards in universities and colleges is the responsibility of the UGC and other statutory regulating organizations.

The Central Government, which also creates Central Universities/Institutions of National Importance around the nation, provides financing to the UGC. The UGC's mandate includes the promotion and administration of higher education. To meet this need, UGC introduced online learning, which offers a variety of degrees and certificate programmed on a virtual platform. Additionally, UGC has decided to use digital technologies to aid in cooperation between the many stakeholders.

There are four types of universities in India:

1. Central Universities are the universities which are promoted and maintained by Central Government. The UGC Act of 1956's Section 2(f) and Section 12(b) apply to these universities. These universities are under the direction of

the Ministry of Human Resource and Development's Department of Higher Education.

2. State Universities are the universities which are promoted and maintained by State Government. These universities are covered under section 2(f)/ 12 (b) of UGC Act 1956. They have the capacity to confer and award degrees to individuals.
3. Section 3 of the UGC Act of 1956 applies to Deemed Universities. A Deemed-to-be-University is a successful institution that has been given autonomy by the Department of Higher Education of the Ministry of Human Resources and Development. They hold sway over the instructors they hire, the course content, the application and admissions procedure, and the tuition they demand.
4. Private universities have UGC approval, but neither the federal government nor the state governments financially support them. They are prohibited from creating off-campus institutions and from joining forces with any other university or institution, but they are allowed to provide degrees. They are routinely inspected by UGC committees and are required to adhere strictly to the specified rules and regulations for their functioning.
5. **UNIVERSITY GRANTS COMMISSION**

Total No. of Universities in the Country as on 02.05.2022

Universities	Total No.
State Universities	453
Deemed to be Universities	126
Central Universities	54
Private Universities	410
Total	**1043**

Universities under 12(B)	Total No.
State Universities	265
Deemed to be Universities	49
Central Universities	54
Private Universities	24
Total	**392**

(https://www.ugc.ac.in/oldpdf/Consolidated%20list%20of%20All%20Universities.pdf)

Table : 2.1 List of Universities in India

Types of Colleges:

Aided Colleges are the colleges which receive aid from the State or Central government to run the colleges. The colleges can appoint the staff in the aided section by following the prescribed procedure of the government. The colleges receive salary and non-salary grants to run the colleges.

Unaided Colleges are the colleges which do not receive any aid from the State or Central government to run the colleges.

Autonomous Colleges are administered by the Education Department and have an autonomy over their admissions, courses, syllabus, and other operations. Autonomous colleges are affiliated with a certain university that awards degrees on their behalf, whereas autonomous institutes are more akin to deemed universities and can offer diplomas as well as have complete autonomy over their admissions, courses, and other aspects of their operations.

University Grant Commission Act 1956 :

This law was created to establish rules for universities, as well as to coordinate efforts and set standards within them. The primary goal of the act was to take action to coordinate and promote university education so that educational standards would be upheld. The Act assists in providing funding for universities and colleges so they can grow. It aims to meet a university's or institution's financial needs. It has a clause to limit spending. Universities must be formed by the federal or state governments in conformity with the standards for recognising institutions, according to Section 2(f) of the UGC Act of 1956. Colleges are brought within the UGC's jurisdiction in accordance with these Regulations as and when bids for inclusion under Section 2(f) are received from the institutions and they are deemed qualified for inclusion. The UGC also includes institutions under Section 12(B) of its Act, as specified by the Act's Rules, in addition to colleges under Section 2(f) of its Act.The colleges can therefore receive central assistance from the Indian government or any other organization that receives funding from the government. According to an approved pattern of aid under various programmers where resources are provided by the central government, the University Grants Commission (UGC) offers financial aid to qualified colleges that are listed under Section 2(f) of the UGC Act, 1956, and have been found

eligible to receive central assistance (UGC grants) under Section 12(B) of the UGC Act, 1956.

2.5 **DIRECTORATE OF HIGHER EDUCATIN**:

(https://www.dhepune.gov.in/)

The Directorate of Higher Education is a state agency that reports to the Maharashtra government's Department of Higher and Technical Education. Prior to October 31, 1984, education at all levels in the state was overseen by a single department head known as the Directorate of Education (DoE). Both at the primary/secondary and collegiate levels, the number of educational institutions has dramatically expanded. To streamline and improve the department's efficiency, the State Government issued instructions dividing it into the Directorate of School Education and the Directorate of Higher Education.

The management of the State's Non-Agricultural Universities and Degree Colleges of Higher Education in the faculties of Arts, Science, Commerce, Law, Education, and Non-AICTE was transferred to the Directorate of Higher Education. It is currently exceedingly difficult for the State level Directorate in Pune to centrally supervise all colleges due to the Director of Higher Education's expanded administrative responsibilities. Decentralizing the structure became necessary as a result, and ten regional offices were set up around the state to supervise and oversee the administration of the institutions in their respective districts. The Directorate's duties can be broadly classified into three groups: Planning and coordination, academic duties, and advisory duties listed in that order. All of the joint directors and their aided colleges provide the necessary information to the Directorate Office. Such data is combined, maintained, and sent to the government when needed. The efficient and transparent use of digital technologies has improved this department's workflow.

State governments and universities face constantly changing problems, different management formats, and ever-evolving information requirements, creating a challenging environment for developing computer-based knowledge management. To depict the state of higher education in Maharashtra, the Department of HE & TE, Government of Maharashtra, has attempted to gather higher educational statistics via a web-based Management Information System. This includes all HEIs in the state that

offer higher education in the fields of arts, commerce, science, education, law, and other non-AICTE courses. Teachers, student enrollment, programmes, exam results, accounting, infrastructural facilities, and other parameters are being collected. This web-based MIS employs digital technology to provide information to the universities and thereby assist them to become more perfect.

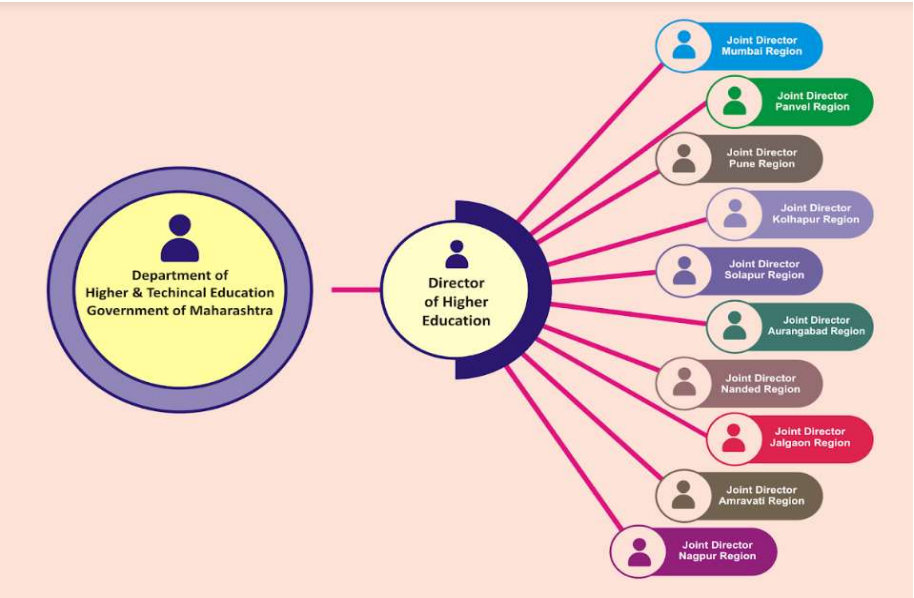


Figure : 2.2 Hierarchy in Department of Higher Education

2.6 HIGHER AND TECHNICAL EDUCATION DEPARTMENT : (https://htedu.maharashtra.gov.in)

In 1992, the ministries of education and employment were separated, and a separate ministry for higher and technical education was established. It is at the helm of guiding and promoting the development and growth of high-quality higher and technical education that satisfies the state's educational and social goals. In line with Maharashtra's development goals and priorities, the Department continues to promote relevant, accessible, high-quality, higher and technical education.

Decentralizing the structure became necessary as a result, and ten regional offices were set up around the state to supervise and oversee the administration of the institutions in their respective districts. The Directorate's duties can be broadly classified into three groups: Planning and coordination, academic duties, and advisory duties are listed in that order. All of the joint directors and their aided colleges provide the necessary information to the Directorate Office. Such data is combined,

maintained, and sent to the government when needed. The efficient and transparent use of digital technologies has improved this department's workflow. Digital administration is being given emphasis in the government, which is efficient and transparent, in order to achieve the aim and goal.

2.7 UNIVERSITY OF MUMBAI (mu.ac.in)

One of India's oldest and most prominent universities is the University of Mumbai, originally known as the University of Bombay. It was one of the first three universities in India, having been established in 1857 as a result of "Wood's Education Dispatch." The university received five stars and a "A++" grade from the National Assessment and Accreditation Council. Any university in the state had never before achieved an A++ rating. The University of Mumbai's vision is to remain inclusive and quality conscious. It has 834 affiliated colleges as of May '2022. In the years 1971-72, the Directorate of Correspondence started imparting a distinct education to the students. The Directorate of Distance Education was renamed the Institute of Distance Education in 1993. As a result, it was designated as a 'University Institution which is known as Institute of Distance and Open Learning (IDOL). The introduction of the Digital University portal improved the efficiency of the examination and enrolment processes. In 2015, the university's academic depository was launched in collaboration with CDSL. In India, the University of Mumbai is the first university to have started an academic repository

2.8 EDUCATION COMISSIONS

University Education Commission (1948-49) Dr. S. Radhakrishnan Commission

Following Independence in 1948, the Indian government's first and most important move in the sphere of education was the creation of the University Education Commission. The Commission was established in November 1948 under the leadership of Dr. Radhakrishnan, and its report was presented in August 1949. The recommendations of the University Education Committee helped to enhance the Indian educational system. The decision was made when it became evident that higher education needed to be rebuilt in order to meet both India's needs for a workforce with the appropriate technical, scientific, and other capabilities, as well as those of its

socioeconomic development. According to the chair of the committee, the commission should examine all parts of the educational system at all levels and provide recommendations that will help India's educational advancement.He believed that education should be viewed as an effective tool for enacting social, economic, and cultural change. The commission's objectives are to increase output, advance social and national integration, encourage the development of moral, spiritual, and communal values, and hasten modernization. The majority of the commission's recommendations, which focused on the administration and economics of universities as well as professional education, were made on a variety of themes.

Secondary Education Commission (1952-53) Dr. Mudliar Commission

The Government of India established the Secondary Education Commission on September 23, 1952, with Dr. Lakshmanaswamy Mudaliar serving as its chairman. The group made a number of suggestions, such as widening the curriculum, adding an intermediate level, creating three-tier undergraduate courses, and more. The Commission's policy for expanding secondary education included the committee's recommendation that secondary education be made more vocational so that 30% of lower secondary students and 50% of upper secondary students might get vocational training. It was planned to develop special programmes to increase secondary enrollment among scheduled castes, tribes, and girls. It took work to develop potential in a sincere approach. Each district was required to establish and carry out plans for the expansion of secondary education over a ten-year period, during which time schools were to accumulate information on students' development.

The Education Commission (1964-66) Kothari Commission

The National Education Commission, a.k.a Kothari Commission, was established by the Indian government on July 14, 1964, with Dr. D.S. Kothari serving as its chairman. The commission's mandate was to examine all facets of India's educational system, develop a general educational pattern, and provide recommendations on policies and guidelines for the advancement of education in India. The group was tasked with developing broad principles and standards for education advancement from early life through higher education as well as providing advice to the

government on a uniformed national education framework for India. The commission operated from 1964 to 1966, and its report was delivered on June 29, 1966.

Standardizing the educational system nationwide based on the 10+2+3 pattern was one of the commission's main recommendations. The group recommended creating a solitary public education system that would later be vocationalized in both general and niche streams by adding work experience into the curriculum. A new method of assessing student achievement was also suggested, as well as the establishment of guidance and counselling centers. It advocated creating minimum pay levels depending on employees' locations as well as standardizing and updating pay scales for administrative, non-teaching, and teaching staff. In order to assist state and local governments in developing and carrying out their educational programmers, the Government of India released a National Policy on Education.

To promote the development of education in India, Kothari Commission broadly recommended to adopt the following principles:

- Free and Compulsory Education
- Status, Remuneration, and Education for Teachers
- Language Development
- Free and Compulsory Education
- Status, Remuneration, and Education for Teachers
- Equalization of Educational Opportunities
- Talent Identification
- Work-Experience and National Service
- Science Education and Research
- Education for Agriculture and Industry
- Production of Books
- Examination Pattern
- Secondary Education
- University Education
- Part-Time and Correspondence Courses
- Spread of Literacy and Adult Education

National Knowledge Commission (2009) Dr. Sam Pitroda Commission

To boost India's competitive advantage in knowledge-intensive service industries, the National Knowledge Commission, an Indian think tank, was entrusted with conducting research on prospective policy changes. With Mr. Sam Pitroda as its chairman, it was founded by the Indian Prime Minister on June 13, 2005, with the intention of developing a strategy to change our knowledge-related institutions and infrastructure so that India can meet its future challenges.The following are the terms of reference for NKC:

- To face the knowledge challenges of the twenty-first century and to strengthen India's competitive advantage in fields of knowledge, build excellence in the educational system.
- To promote knowledge generation in science and technology laboratories.
- To improve the management of institutions dealing with intellectual property rights.
- To promote the use of information in agriculture and industry.
- To promote the use of knowledge capabilities, to make the government more effective, transparent, and accountable to citizens, as well as for comprehensive sharing.

The National Knowledge Commission's principal goal was to encourage the growth of a thriving knowledge-based society. This implies both the creation of fresh avenues for knowledge production and a significant improvement to the existing knowledge systems. Increased engagement and more equitable information accessibility for all parts of society will be necessary to achieve these aims.

2.9 NATIONAL EDUCATIONAL POLICIES:

To improve the country's literacy rate since independence, the government has funded numerous initiatives for rural as well as the urban sector of the nation. India's first education minister, Maulana Abul Kalam designed such system in the central government which focused mainly on a unified educational system for the citizens.The Union government established many commissions and put education policies into place in order to gather proposals for enhancing India's educational system.

National Education Policy (1968)

Based on the Kothari Commission's recommendations which stood for a "radical restructuring" and suggested equal educational opportunities as a method of attaining national cohesion as well as better cultural and economic progress, the first National Education Policy was issued in 1968. The policy covers elementary education in both rural and urban India. The policy demanded that all children up to the age of 14 must attend school, as required by the Indian Constitution, and that teachers receive specialized training and certification.The plan, which highlighted the need of learning regional languages, defined the "three language formula" for secondary education, which included teaching English, the state's official language, along with Hindi. Language instruction was seen as crucial for bridging the communication gap between academics and the general public. Despite the fact that the choice to make Hindi the national language was controversial, the policy sought to persistently stimulate Hindi usage and learning in order to develop a common language for all Indians. The use of Sanskrit, an ancient Indian language, as a teaching tool was also encouraged because it is seen as an important aspect of the country's tradition and history.The NPE of 1968 recommended raising education spending to 6% of gross domestic product.

National Education Policy (1986) and Revised Programme of Action (1992)

In 1986, the Indian government adopted a new national education policy. It demanded that special attention be paid to closing disparities and ensuring that educational possibilities were equalized, especially for Indian women and other special category populations. The initiative aimed to expand scholarships, adult education, hire more

instructors, give impoverished families incentives to send their kids to school regularly, and create new institutions. The NPE promoted a child-centered approach to primary education and introduced Operation Blackboard as a statewide programme to enhance elementary schools. The Indira Gandhi National Open University was established in 1985 as part of a goal to extend the network of open universities. In order to promote local economic and social development in rural India, the programme also called for the establishment of a "rural university" model based on the teachings of Mahatma Gandhi. In 1986, the government set aside 6% of the GDP for education.

Reformulation was essential, according to the National Education Policy of 1986. After a committee reviewed the NPE 1986 and developed a thorough program/action plan, the Programme of Action (POA) 1992 was prepared to offer recommendations in this area. India's educational policies aim to redesign how education is structured at various levels. After the NPE 1986, the POA 1992 made an effort to achieve long-term objectives including universal enrolment and retention. The National Policy on Education (NPE) of 1986 mandated that all applicants to professional and technical programmes nationwide take a single entrance exam. This requirement was challenged by the Programme of Action (PoA) of 1992.This tackles the issue that different programmes have varying entrance requirements in order to uphold professional standards. Additionally, this avoids overlaps and lessens the financial, emotional, and physical strain on both kids and their parents.

National Education Policy (2020)

The National Education Policy of India 2020 (NEP 2020), which establishes the objectives of India's future educational system, was approved by the Union Cabinet of India on July 29, 2020. The National Policy on Education from 1986 has been replaced by this policy. The initiative concentrated on a thorough foundation for vocational education, from elementary to higher education, in both rural and urban India. The programme intends to revamp India's educational system from top to bottom. The Indian government compiled feedback from 2.5 lakh village-level stakeholders and provided it to two national legislative level committees over the course of more than 50 months of dialogues and workshops.

The New National Education Policy 2020 aims to achieve a Gross Enrollment Ratio (GER) of 100 percent by 2030, universalizing education from pre-school to secondary school. The introduction of a four-year multidisciplinary undergraduate curriculum with a variety of exit possibilities is one of the improvements it suggests, along with the extension of Indian higher education to international universities. Additionally, it seeks to make India a powerhouse of information on a worldwide scale.By 2040, all colleges and universities should strive to be multidisciplinary, according to NEP 2020. This strategy will improve our educational system while simultaneously increasing job generation and employability in the nation. This plan calls for replacing the current 10+2 school structure with a new 5+3+3+4 one that will serve as the foundation for all pupils from the age of three to eighteen.

The importance of higher education institutions was also highlighted in NEP 2020. By 2035, the NEP intends GER in higher education to reach 50%. The three categories below will be applied to all institutions of higher education (HEIs): I conduct research at universities that prioritise both teaching and research, teaching-focused universities, and degree-granting colleges that prioritise undergraduate instruction. All higher education institutions should have interdisciplinary curricula that combine the humanities, the arts, and STEM (science, technology, engineering, math).The flexibility of the undergraduate degree will increase when more exit alternatives with relevant certification are provided. It will be left to HEIs to decide whether to offer a variety of master's degree programmes. The M.Phil. programme will eventually end. The regulatory framework of higher education in India will be overhauled to make sure that various, independent agencies carry out the duties of regulation, accreditation, funding, and setting academic standards. Conflicts of interest will be reduced, power concentration will be prevented, etc. The NEP suggests that India establish a separate National Research Foundation to fund and support world-class research. The best Indian universities will be encouraged to establish campuses abroad. Similar to this, only a select number of the greatest universities in the world will be permitted to operate in India. The NEP suggests that vocational education be gradually included into all schools and higher education institutions over the course of the next ten years. A national commission for the integration of vocational education will be created by the MHRD to achieve this goal.

Digital education is another area of concentration for NEP 2020. When face-to-face learning is impractical, as it was during the most recent pandemic, alternate platforms for excellent instruction should be constructed. The development of two-way audio and video interfaces for online classes, the creation of a digital repository of coursework, educational games, and simulations using virtual reality, the use of other channels like television, radio, and mass media in multiple languages to ensure access to digital content where digital infrastructure is lacking, and the creation of virtual labs on existing iPads are just a few of the interventions that must be made in order to ensure inclusive digital education.

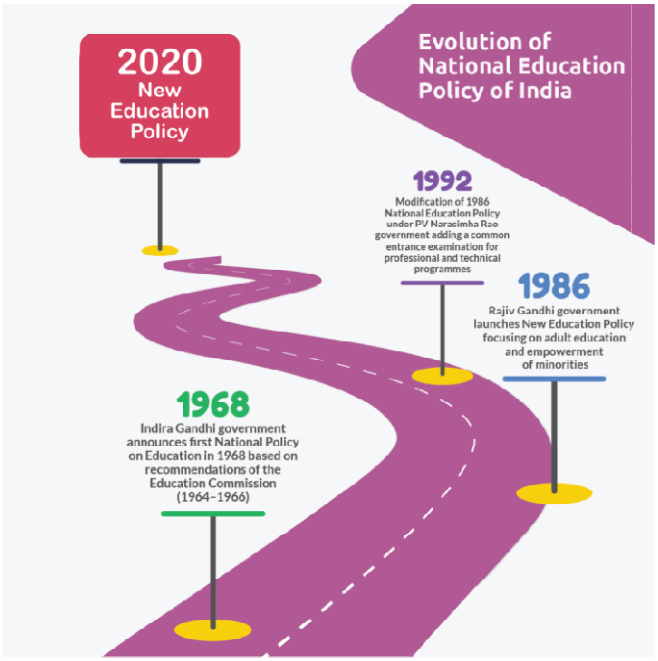


Figure : 2.3 Education policies of India

2.10 RASHTRIYA UCHCHTAR SHIKSHA ABHIYAN (RUSA): (http://rusa.nic.in/)

The federal government's contribution to realizing the potential of India's extensive system of state universities is the Rashtriya Uchchatar Shiksha Abhiyan. The future of the nation depends on giving these universities what they require to advance education, advance research, and promote innovation. RUSA, a programme supported by the federal government, acknowledges that some of life's most significant lessons are acquired outside of the class-room. Therefore, this programme acknowledges that every institution has the potential to enrich people's lives through top-quality

education, whether it be through upgrading libraries or computer labs, promoting autonomous colleges, or clubbing them to consolidate their strength and form cluster universities.

The RUSA is committed to the merger of colleges that make up universities. RUSA wants to create new universities by modernizing current independent institutions and clustering them. It will create new model professional and degree colleges as well as infrastructural support for universities and colleges. The programmes also include leadership training for educational administrators, programmes for faculty improvement, and aid with faculty recruiting. The current Polytechnic central scheme has been included into RUSA to enhance skill development. It also has a unique element to combine higher education and vocational education. In addition to this, RUSA encourages institutional change, restructuring, and capacity building in participating states through receiving a superior education.

The RUSA wants to raise the standard of public higher education institutions. The objective is to make excellent higher education widely accessible. It suggests that states endeavor to improve overall academic quality through reforms and make sure that all of their institutions obtain NAAC accreditation as the required quality assurance system. They will be strengthened to promote investigation and invention within their organizations. The use of information and communication technologies (ICT) on a digital platform is one of the specific improvement initiatives that states and institutions are obliged to define as well as their existance standing in this field.

2.11 NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC) : (http://naac.gov.in/)

One of the biggest and most diverse educational systems in the world is found in India. The introduction of new and emerging programmes, broad growth, more autonomy, and privatisation have all improved access to higher education. It has also sparked a lot of debate over the worth and standard of higher education. The National Policy on Education (NPE, 1986) and the Programme of Action (PoA, 1992) suggested the establishment of an independent National accreditation organisation and laid forth strategic plans for policy execution in order to address these issues.As a result, the University Grants Commission (UGC) established the National Assessment

and Accreditation Council (NAAC) in 1994 as a separate organisation with Bengaluru as its headquarters. As stated in its vision statement, NAAC's aim is to make quality assurance an essential part of higher education institutions' daily operations (HEIs).

The General Council (GC) and Executive Committee (EC) of the NAAC are made up of leading academics, policymakers, and administrators from the Indian higher education system. In order to determine the institution's "Quality Status," it evaluates and accredits higher education institutions (HEI), including colleges, universities, and other recognised institutions. Additionally, it evaluates institutions based on how effectively they meet quality requirements for teaching-learning procedures, research, organisational governance, infrastructure, curriculum coverage, financial stability, and student services.

NAAC promotes the following core values among the country's HEIs:

- Contribution to National Development
- Students' Global Competence Development
- Instilling a Value System in Students
- Exploration of Excellence
- Encourage the Use of Technology.

NAAC has defined a series of seven criteria which will serve as a framework for its evaluation procedures. Administrative work is involved in each criterion of NAAC. It emphasizes the value of administration in the NAAC procedure. Each phase, such as HEI registration, IIQA submission, AQAR submission, SSR submission, etc., involves complex administration. According to the standards provided by NAAC, internal quality assurance cells (IQACs) in HEIs must be formed and must nominate senior administrative officers.

By allowing online data entry through the NAAC site, NAAC encourages digital governance.

2.12 ALL INDIA SUREVY ON HIGHER EDUCATION (AISHE) : (https://aishe.gov.in/)

In any society, but especially in a sizable and diversified democracy, the official statistics process is crucial. The system's absolute independence and transparency are two of its driving principles. In light of the aforementioned, the Ministry of Education (MoE) started the 'All India Survey on Higher Education (AISHE)' on September 30, 2010, to build a trustworthy database and assess the actual state of higher education in the nation.The main objectives of the survey were to identify and catalogue all HEIs in the nation and to gather information from them on various elements of higher education.

The information gathered from the AISHE includes information about the institution, the teaching staff, non-teaching staff, the courses offered, the enrollment of students, the outcomes, the financial data, the infrastructure, the scholarships, the accreditation, etc. The collection of all this information by AISHE on an internet platform, which again promotes digital administration, is related to administrative tasks.

2.13 NATIONAL INSTITUTION RANKING FRAMEWORK (NIRF) : (https://www.nirfindia.org/)

The Honorable Minister of Human Resource Development unveiled the National Institutional Ranking Framework (NIRF), which was approved by the MHRD, on September 29, 2015. A mechanism for categorizing educational institutions across the country is described in this framework. The approach was provided by the MHRD's Core Committee, which was created to specify the general standards for ranking different colleges and institutions. This strategy is based on the committee's general recommendations and in-depth expertise. The characteristics are classified into five groups: Outreach and Inclusivity, Teaching, Learning, and Resources, Research and Professional Practices, Graduation Outcomes, and Perception.

The majority of the information needed for NIRF rating is administrative in nature. The data must be entered into a website gateway designed specifically for this function. Institutions are required to post the data they have contributed to a public website in accordance with the guidelines set forth by NIRF. Institutions would

unavoidably display the information they contributed for the India Rankings on their website after the final submission. Additionally, they need to include an email address where individuals can express their comments and suggestions. Digital administration is required for the entirety of this work.

2.14 ACADEMIC AND ADMINISTRATIVE AUDIT (AAA) :

The process of measuring the quality and performance of administrative procedures is known as academic and administrative auditing. It entails evaluating regulations, methodologies, and operations of numerous administrative divisions, as well as controlling the overall institutional framework. The National Assessment and Accreditation Council evaluates educational quality in higher education institutions and works to ensure that colleges provide high-quality educational services in all potential areas. NAAC wants academic institutions to have gone through an Academic and Administrative Audit, which requires the institute to monitor and evaluate their systems with a very good framework of reviews.

Academic and administrative audits of colleges have become an essential part of bringing new educational reforms, monitoring progress, and supporting reforms of higher education institutes. AAA helps the college to know and review the actual working patterns in the institution. It also helps to clear the lacunas before the NAAC visit. The guidance received by the expert is very important in this AAA process. The working style and SOP of all the important departments and committees are checked by the auditor and suggest appropriate action for correction. Similarly, a detailed review of all the steps in administrative procedures is also audited in the audit, which helps to upgrade the knowledge and to do the corrective measures if any.

2.15 INTERNATIONAL ORGANISATION FOR STANDARDIZATION (ISO)

The International Organization for Standardization is a global coalition of national standards organisations. It is not a government organization. It is made up of standard-setting bodies from over 160 countries, with one standard-setting process involving each member nation. An organization's ISO certification plays an important role in increasing productivity, optimising resource acquisition, and expanding internationally. The development of institutions and innovation is possible due to

increased efficiency through ISO certification. The increased productivity helps the organisation compete in the market.

Acknowledging the significance of high-quality education for all, ISO created ISO 21001, the first management system standard for education. It aims to improve educational institutions' systems and performance in order to meet the needs and objectives of those who use the services of educational institutions. To obtain the ISO certification, a long procedure is required to be followed. Firstly, a college needs to appoint a consultant who guides the institution through the journey of ISO. The consultant trained all the departments of an institution and the administrative section in a very systematic and scientific way for ISO certification. The college is required to frame their policies, scope, risk, and opportunities for the purpose of certification. These policies were strictly followed throughout the audit. Normally, the audit is in two stages. The ISO auditor may point out some major or minor NCs during the audit, which is expected to be cleared by the colleges in the stipulated time. It is a continuous development process which helps the organisation to keep them upgraded. Due to the yearly survelliance audit, an organisation is forced to follow and maintain the high quality standards.

2.16 DIGITAL TECHNOLOGIES IN EDUCATION SECTORS

Technology provides solutions in the form of digital education to increase learning outcomes, digitalized administration, access and quality of learning. The Ministry of Human Resource Development's (MHRD) National Mission on Education via ICT (NMEICT) is a significant educational initiation to integrate digital education solutions to enhance learning outcomes and access high-quality information. Even though the NMEICT programme has launched a number of initiatives, several higher educational institutions are putting SWAYAM, SWAYAM Prabha, the National Digital Library (NDL), e-Yantra, FOSSE, Spoken Tutorials, and Virtual Labs into practice.

SWAYAM (www.swayam.gov.in)

India's own MOOC network, "Study Webs of Active Learning for Young Aspiring Minds" (SWAYAM), offers free online courses in practically all subject areas. The goal of a government-initiated programme is to meet the three guiding principles of education- easy access to resources, equity, and great quality educational resources. This is to ensure that everyone, particularly the most disadvantaged, have an access to the best teaching and learning resources. SWAYAM aims to close the digital divide for students who have so far escaped the effects of the digital revolution and are unable to participate in education. A locally created IT & Cloud based infrastructure enables hosting of classrooms right from 9^{th} grade to PhD & post-graduate level studies. SWAYAM is accessible to anyone, from anywhere & at anytime. Interactive courses are available free of cost & are designed & developed for the students by over a thousand pronounced teachers from the nation.

The SWAYAM courses are divided into four sections: Video lectures, reading materials that may be downloaded or printed, self-assessment tests, quizzes, and online discussion forums for Q&A sessions. Utilizing cutting-edge pedagogy/technology, audio-video, and multimedia has enhanced the learning experience. The creation and administration of courses are handled by nine national coordinators. Consortium for Educational Communication (CEC) for Undergraduate Non-Technical Education, University Grants Commission (UGC) for Postgraduate Non-Technical Education National Project for Technology Enabled Learning (NPTEL) for Engineering, National Council of Educational Research and Training (NCERT) for school education, National Institute of Open Schooling (NIOS) for extracurricular activities, Indira Gandhi National Open University (IGNOU) for distance learning diploma & certificate programmes, National Institute of Technical Teachers Training and Research (NITTTR) for teacher preparation, and Indian Institute of Management.

The SWAYAM-delivered online courses are anticipated to close the digital divide by giving everyone an access to the best information. By combining SWAYAM MOOCs with regular schooling, it is projected that student learning outcomes would rise in the next days and shift the game for the education industry.

SWAYAM PRABHA (www.swayamprabha.gov.in)

SWAYAM PRABHA is a project which offers about 32 high-level educational DTH (Direct to Home) offers on channels throughout the country on a round-the-clock basis. Due to this, online education might be provided in the most economical & comprehensive way possible. The Space Department has given two GSAT-15 transponders for the same. Honorable Indian President on July 9, 2017, introduced the SWAYAM Prabha. Anyone with a free DTH user of Doordarshan & Zee-Dish TV can use their set-top-box to get access to these channels. The Ministry's suggestion to offer free access is being thought about by other service providers as well. The materials were created by various MHRD organisations, including CEC, IGNOU, IITs, NIOS, and NCERT.

National Academic Depository (NAD):(https://nad.gov.in/index.html)

An effort was made to create an online archive for all academic prizes, which gave rise to the National Academic Depository (NAD) concept. All academic awards, including certificates, diplomas, degrees, mark sheets, and so forth, that have been legally digitalized and deposited by educational institutions, boards, and eligibility assessment bodies are kept in the National Academic Depository (NAD), a round-the-clock online storage facility. NAD makes it easier to obtain academic honors in addition to information. Additionally, it ensures and certifies their legitimacy and appropriate storage.In order to inspire and excite people, Digi Locker, a NAD service provider, gives them access to trustworthy papers in their digital document wallet. Approved records in the Digi Locker system are equivalent to genuine physical records, according to Rule 9A of the Information Technology (Preservation and Retention of Information by Intermediaries Offering Digital Locker Facilities) Rules, 2016. By giving online access to academic awards and removing the need for users to contact universities for transcripts of such awards for validation, maintaining academic awards in an electronic depository would be advantageous to educational institutions, students, and employers. By providing proper authentication of the award's authenticity, integrity, and confidentiality, it would also end fraud incidents like award fabrication.

National Testing Agency (NTA) (https://nta.ac.in/)

The National Testing Agency (NTA) was founded as a pioneering, specialised, independent, and self-sustaining testing agency to conduct entrance tests for admittance into higher education. It has been established to improve educational quality and equality through the administration of research-based, justified, accurate, convenient, clear, reasonable, and global stage assessments. The ideal people with expertise in analyzing the performance and information technology services and security experts make sure that current evaluation system shortfalls are identified and bridged. The NTA developed a system that promotes teaching and learning by the students and teaching staff and evaluation by the parents and educational institutions. NTA is a firm believer in analytical study, effectiveness, potency, genuineness and reliability. To put these values into practise, NTA will actively involve its stakeholders, which include staff, students, parents, educational experts and the educational institution. The main functions of NTA are to create a robust R&D tradition, pool of testing experts in various areas, assist educational institutions in the area of evaluation and provide training and advisory services to the educational institutions of India.

National Digital Library (NDL) (www.ndl.gov.in)

IIT Kharagpur has been given the task of developing the overall structure of an institution that can give students a singular way access to contents and resources online as part of the National Digital Library of India (NDL) project. The goal is to develop NDL into a National Knowledge Asset that will serve as India's main engine of innovation, research, and technological advancement, also accessible on the UMANG Platform and on Android and iOS mobile app. Anyone can sign up for NDL for free. Currently, NDL has over 45 lakh registered users and about 200 lakh content items. To give access to various categories of users across the entire population, NDL integrates the current digitised and digital resources from educational and cultural organisations / bodies, publishers, etc. NDL retrieves metadata from various resources and stores and indexes on its servers so that users may search and get access to all of the contents online. Metadata is defined as "data that offers information about other data." Instead of storing the actual contents on its computers, NDL provides links to

the relevant content hosting websites to users as part of search results. On clicking these links, users can access the content hosted by the relevant websites.

e-Yantra (www.e-yantra.org)

IIT Bombay was given the responsibility for the e-Yantra project, which aims to facilitate efficient robotics and embedded systems education throughout Indian engineering universities. Workshops are used to train educators, with participants learning the fundamentals of programming and embedded systems. Another novel strategy for finding creative answers to problems is to involve teachers and students in hands-on robotics projects through competitive events. Additionally, e-Yantra helps colleges build up robotics labs and clubs so that it can become a regular part of their training programme. Through this effort, more than 275 colleges in India have benefited. On the e-Yantra all every project and code is made completely accessible as open source.

With the aid of robotics and autonomous systems, this innovative effort intends to develop an embedded system with a practical vision who can contribute to offering answers to some of the real-world problems.

Virtual Lab (www.vlab.co.in)

Through this programme, labs in several branches of science and engineering are made accessible remotely. By carrying out virtual lab activities at any time and location of their choice, apart from their lab hours, students can further solidify their understanding of ideas. These virtual labs would serve undergraduate, graduate, and research academics in addition to students at all academic levels. IIT Delhi, IIT Bombay, IIT Madras, IIT Guwahati, IIT Kharagpur, IIT Kanpur, IIT Roorkee, NITK Surathkal, Amrita Vishwa Vidyapeetham, and Dayalbagh Educational Institute Agra are among the twelve participating institutions in this programme. The coordinating institute of this project is well-known IIT Delhi.

FOSSEE (www.fossee.in)

To raise the standard of education in our nation, the FOSSEE (Free/Libre and Open Source Software in Education) is a project which encourages the adoption of free and open source software solutions to all. It tries to lessen educational institutions' reliance

on proprietary software. IIT Bombay is putting it into practice. FOSSEE encourages the use of cutting-edge FLOSS in research and instruction. Scilab, Python, R, DWSIM, Open Modelica, and Open FOAM are a few of these tools. Existing tools are upgraded, as well as new FLOSS utilities like eSim are upgraded. Additionally, it supports open source electronics like Arduino.

Digital Governance in Indian Universities

Fenton et al. (2019) claims that digital transformation, which adapts to new technology as it becomes available, is changing how people live, work, think, engage, and connect with one another. Through efficient digital transformation procedures, this increases productivity, reduces costs, and swiftly and flexibly delivers new services. A fundamental change in the services provided to people in a variety of areas, such as health, education, safety, and security, has the impact of bringing about and enhancing their experiences and effectiveness (Kale 2019).

Data management is essential to the digital transformation processes of all organisations, including colleges (Leignel 2016). Because of the significant development in the amount of data that colleges now generate, gather, and store, the concept of data governance has gained popularity in recent years. Universities have come to realise the necessity to establish legislation governing this enormous amount of data and information, in addition to fearing the risk of safety, privacy, enforcement, and legal violation.

For instance, funding, using certificates, approval procedures, and feedback systems are all important processes. The higher education system's digital governance will make it possible for different stakeholders to keep a track of the increased operational performance. The Indian Higher Education System (IHS) is introduced to meet the demands of students by enhancing their employability and fending off potential competition from foreign universities through increased operational effectiveness and deeper exposure (Shrivastava 2016).

To assess the effectiveness and prevent the duplicating of methods, consolidated data on each institution and college should be made available. Universities and colleges may use the digital management tools to submit their documents for approval online.

To convey the information from the shared pool, all organisations need work together inside. The university will experience a large reduction in staff that is duplicated ineffectively. By establishing this type of governance, a number of additional services can be provided (Kumar, 2014).Digital governance in the education sector benefits better performance, greater accountability and transparency for administrative activities in the educational setting, speedier access to facilities, and cheaper administrative expenses.

Approach towards Digital Technology/ Digital Administration

Digital transformation (DT) has become a significant phenomenon in recent years, grabbing the interest of both researchers and practitioners. At the most general level, "DT" refers to the societal and institutional changes brought on by the adoption of new digital technology (Vial, 2019). Organisation can use these technologies to innovate at the organizational level by creating plans that take the consequences of the digital transformation into account and improve operational performance (Hess, 2016).

Improvement of cooperation procedures, avoiding time and money waste in information management, meeting reporting requirements and standards, and guaranteeing information quality are all included in these problems (Conry Murray, 2008; Päivärinta & Munkvold, 2005). According to Demirtel and Bayram (2014), public institutions need electronic administration systems that enable systematic record management, production within business processes, and execution of these activities via electronic media. In fact, the primary goal of utilizing modern technology in any sector is to not only automate the conventional organization service procedures but also to enable openness and accountability in governmental institutions, which will subsequently boost the performance of those organizations.

Electronic administration (e-administration), according to Onuigbo and Eme (2015), is a part of eGovernment that internal administration within the government instead of external users like enterprises and citizens. A key component of the success of back-office operations in public organisations is e-administration. Electronic administration, according to Eynon, Dutton, and Margetts (2006), is "an application

that uses Information and Communication Technology (ICT) to support back-office administrative functions." Similar to this, according to Sanchez (2006), communication technology is employed in e-administration to support information flow both inside and outside the public institution.

The connection between departments is generally covered by electronic administration systems to enhance administrative procedures in hierarchical organizations. Additionally, hierarchical structures frequently result in complex administration and specialized tasks inside government agencies (Niskanen, 2007). E-administration enables integrated communication and administration processes within organizations like universities as well as in governments as a whole in order to improve internal operations in the related sector. In any case, putting electronic administration services into practise is more difficult than anticipated. With this total digital transformation, the higher education institutions have the chance to make it easier for stakeholders from various social backgrounds to access education. In addition, it will give students the knowledge and abilities they need to approach current world issues from a trans disciplinary viewpoint. The start of a pandemic in early 2020 has considerably accelerated progress in the digitization of higher education. It is unheard of for there to have been such a swift and widespread shift to distant learning through online education.

The Industrial Revolution 4.0's technology growth has permeated higher education institutions (HEIs), requiring them to deal with a digital revolution in every aspect. As they enable us to characterise the complex relationships between actors in a digitally enabled education domain, applying the techniques of digital transformation to the HEI sector is an emerging subject that has attracted interest recently. This paper's goal is to provide an overview of the distinctive features of the DT implementation process that has taken place in HEIs.

Perception towards Digital Transformation

The infrastructural challenges of any hybrid model are often used by those students who have access to a strong internet/Wi-Fi connection and current computers. For scholars and educators, a new area of educational study is currently emerging. We could relate to teachers' worries about the digital transformation of education even

before the pandemic (DTE). One of the key subjects of pre-pandemic papers was the relevance of digital pedagogy in comparison to digital resources, which is highlighted in reviews on the integration of bimodal higher education.

Although DTE has transformed conventional ways of instruction, scientific inquiries focus on the enhancements it makes to conventional teaching and learning procedures. In this way, identity agency and digital spaces are new spaces that were created as a result of the research findings.

DT refers to the transformation brought about by the integration of digital technologies into every facet of human civilization. This development of digital pedagogies & digital literacy, the European Framework for the Digital Competence of Educators, the significance of coordination between the planning and projects that regulate the life of educational centres, and the simultaneous incorporation of their digital project have all contributed to this change, which was initially connected to the application of digital technologies.

The perspectives of university students indicate the need to think critically about the modification of training models, according to the findings of a significant number of investigations. The standout feature is that the new institutional culture of HE coincided with the on-line learning that took place in the first semester of 2020 and was based on distant education models.

Usability of Digital Transformation

College coaching has been discontinued since the pandemic. The majority of universities have adopted digital learning. The learning findings, however, are also ambiguous. Parents are unsure whether they may send their children to the institution even after the Covid outbreak appears to be under control. This has forced institutions to recognise the shift of education to the digital age. The general digital transformation of the education sector allowed for the replacement of the blackboards with digital whiteboards, interactive front-of-class presentations for the overhead projectors and heavy books with tablet-based digital copies.

Typically, the admissions or registration process takes a long time. Students must wait in line to apply for admission and send in necessary paperwork. Students who want to check on the status of their form submission must go to the college. On the administrative front, the admissions team must analyse files, confirm credentials, list students, and keep them informed of the status of their applications. All participants in the new age registration process, including parents, pupils, educators, and administrators, will have online access.

Assessment and marking provide difficulties for the colleges as well. Students frequently struggle to pass unreasonable assessments. To prevent this, institutions could include webcams in their online test platforms. While taking exams, it will be useful to keep an eye out for unusual activity including opening windows, background chat boxes, image exchanges, and more.

Learning Experience Platforms

Learning experience platforms (LXPs) are community learning platforms powered by AI that are offered through software as a service (SaaS). LXPs were created as a result of an innovative approach to corporate learning platforms that addressed alleged weaknesses in learning management systems (LMS). An LXP switches the approach to emphasis on employee needs, whereas a learning management system concentrates on the requirements of the Learning & Development (L&D) division to give education, strategy, and training programmes to employees.

A simple learning and development platform is known as an LXP. Employees have opportunities for professional growth thanks to LXPs, which also assist them in finding answers to important business concerns. Learning interaction platforms herald a change in learning management systems' leading, planning and control approaches in favour of one that is more self-reliant, autonomous, and conscience.

An LXP employs artificial intelligence (AI) to suggest to users online material from other websites, such as blogs, papers, presentations, and videos. Users can receive tailored education based on their prior behaviour, expressed goals, or assumed learning preferences courtesy of the application of AI. Similar to social networking

sites, an LXP facilitates participant social learning by linking users with companions or subject matter experts.

Learning Management System (LMS)

It is a programme which is based on the digital technology and is used to organise, apply, and evaluate a particular learning experience. Schoology, D2L Brightspace, LearnDash and Google Classroom are just a few examples of free or open source LMS software. In the pandemic situation, the best option adopted by the educational institution to provide the services to the stakeholders is through LMS. An LMS is a digital technology used by higher education institutions to manage training for their employees and stakeholders. In recent times, the word training conjured up images of a classroom with an expert delivering a lecture in front of the students. And when we think of "classroom training," we imagine a large group of students in a classroom, which is the traditional Method of instruction.

Online training is becoming increasingly popular, particularly in times when connecting online is more convenient than a face-to-face meeting. The eLearning market will continue to grow as HEI, staff and students recognise the benefits of virtual training and LMS training.

2.17 OTHER REFERENCES:

MeenaC (2012)outlined training requirements and selection of training courses for Alagappa University and its affiliated colleges' administrative staff. Her theory takes into account how administrative personnel perceives the various designations' training demands and requirements. She examined the administrative staff's views on the need for and attitude toward training programmes at Alagappa University and its affiliated colleges. Her goal was to offer a suitable training module for the administrative staff at Alagappa University and its affiliated colleges, as well as to make acceptable recommendations for boosting administrative staff efficiency through training programmes.

Rajasingh S (2009) discussed the evaluation of educational excellence. His theory holds that there is a considerable variation in the perception of higher education

quality among different businesses, faculties, students, and alumni. He discussed the expansion of higher education in India, the Indian educational system, and the cost of higher education. In the backdrop of the information technology revolution, the communication explosion, the knowledge economy, and globalization, he claims that India creates an amazing number of professionals. According to him, the purpose of this study is to create a special quality measurement tool to evaluate the knowledge of different stakeholders regarding the caliber of students and faculty in higher education in the country, to identify the perception gaps between different stakeholders regarding the caliber of higher education in India, and to ascertain the effects of demographic variables on faculty, students, alumni, and industry perceptions, in that order.

Chapke S G (2004) studied Study of Affiliated Colleges' Organization and Management in Western Vidharbha. In addition to the historical background of affiliated institutions, the history of administration in affiliated colleges, and the recommendations of numerous committees and commissions, the researcher concentrated on the need for and significance of higher education in India. He looked at the numerous facets of administration and management of affiliated colleges as well as the roles played by various organisations, including the UGC, state governments, universities, etc. in the management of the colleges. According to his theory, the smooth and effective running of colleges depends on the personnel and their attitudes, as well as interactions between the personnel, the principal, the management, the university, and the government.

Mali Archana Jayant (2016) compared the management of aided and unaided commerce colleges in the district of Pune. The primary hypothesis put out in this study is that there are no appreciable differences between the activities of aided and non-assisted commerce colleges and that management and administration of both types of schools appear to be good. His study's goals were to examine the administrative organisation, labour practises, and issues that both aided and unaided commerce colleges were facing, as well as to make recommendations for solutions. Because aided institutions get government subsidies, the researcher came to the conclusion that their operations and management are superior to those of non-aided colleges in this study. But for assisted colleges, the government provides salary

grants. Additionally, the collection of fees is the only source of funding for facility expansion and salary costs at unaided colleges. According to analysts, grant assistance patterns play a significant role in the growth of each college.

Singh Narendra (1981) studied the administrative problems of affiliated colleges. He had determined the objectives and purpose of the present investigation to find out how collegiate administration is run and what problems come in the way of efficient running of the administration. He emphasised the connection between organisational issues, location, size, and the kind of college, as well as the relationship between administrative issues and leadership conduct. His goal is to research administrative issues involving management, academic institutions, the government, academic and non-academic employees, and students. He came to the conclusion that if the associated colleges' current administrative structures were changed in accordance with the suggestions made by the various commissions and committees, administrative concerns could be overcome.

Neelaveni C. (2016) studied the administrative exercises that are being followed in the higher educational centers in 5 districts. In higher educational institutions in certain districts, he researched and studied the disagreements between staff and students over the elements influencing the caliber of administrative practices. The relationship between the influence of higher educational institutions' quality of administrative practices with regard to HEIs of particular district is determined by thecomparative research of staff and student perceptions regarding the practices' quality. According to her, student enrolment, administrative rules, and practices have an impact on the expansion of higher education.She came to the conclusion that all five research-involved dimensions—namely, the quality of administrative practices adopted, the quality of administrative practices applied, the quality of administrative functions provided, the quality of administrative practices perceived by staff, and the quality of administrative practices perceived by students—are important in determining the impact of the quality of higher educational institutions. These elements could all improve the standard of higher education.

Kurhade Neha Rahul (2019)studied the role of healthy practices in developing administrative and academic excellence in selected educational institutions. The principal objectives of her study were to understand the types and nature of healthy

practices in educational institutions; to study the involvement of various stakeholders in the implementation of various healthy practices; to enlist the problems faced in the institutions and administration of healthy practices, to identify the constraints and barriers in the successful implementation of healthy practices; and to suggest suitable measures for developing a positive and healthy academic culture through an

institution with healthy practices. One of the important objectives was to enlist the issues faced in institutions and administration while implementing healthy practices in an educational institution. She concluded that the Internal Quality Assurance Cell (IQAC) has significantly shaped the college's overall academic and administrative system.

Saha Goutam G (2012) investigated the effect of resource planning for educational institutions on raising the standard of management education, with a focus on the state of Maharashtra. He studied the higher education system in India. He drew a parallel with taking the growth of business education and the growth of higher education as the major concern. According to his theory, Maharashtra's business education meets the needs of a changing business environment and is seen favorably by educators, learners, academicians, company executives, industry executives, and management students. He came to the conclusion that improving the educational system was essential. Quality is no longer an option in the present competitive market; it is a requirement for survival and growth.

Goel Shivani (2012)studied the creation of a framework for effective ERP implementation in technical educational institutions He researched Enterprise Resource Planning (ERP) in depth and examined the prevalent methodologies in ERP solution implementation. described the role, benefits, and challenges of the ERP system in educational institutions. He tried to understand the cost-benefit analysis of ERP solutions. In order to increase efficiency and accessibility for all members, he claimed that academic institutions employ ERP systems to manage information and control. The objective of deploying ERP is to improve end-user performance by giving organizations better management tools. He also created a framework for a successful adoption of an ERP application. He came to the conclusion that an ERP system may be made more effective by taking into account a variety of system qualities, such as raising user happiness, lowering user issues, and enhancing the

system's adaptability and user-friendliness. From a management perspective, effectiveness is crucial. Similar to this, cost effectiveness, ease of administration, and better resource utilization are crucial.

Bhamangol Balasaheb (2013)studied the ERP models for two main branches of higher education: medical institutions & technical institutions in Pune. Researchers studied the growth of education and, subsequently, the role of ICT in framing the Indian Education System. He focuses on the use and need of ICT in the education sector. He stated that many multinational companies are using the ERP system and developing their brand. Similarly, he emphasizes the significance of ERP in the educational sector. The purpose of the ERP for institutions of higher learning (IHL) was to support important academic and administrative services. The academic management module of this ERP system typically serves employees, students, human resource management, and finance management. According to his theory, educational ERP improves decision-making in educational institutions, ERP is significantly less expensive than legacy systems, and infrastructural facilities are insufficient for adopting ERP in educational institutions.

Gaur Ghanshyam Singh (2014) He wanted to understand the significance of ERP solutions in the education sector through his research**.** His research's goals include creating a platform for more effective student community communication, lowering the communication gap between students and educational institutions, integrating various modules with centralized management, maintaining integrity, creating a framework for the collaboration and integration of educational institutions, and creating a design pattern architecture in an interactive system environment. He noted that the lack of information sharing between students and the organization is the primary issue with educational institutions.He thinks that ERP systems can be easily customized to fit the unique institutional practices. He also looked at the implementation strategies used by several worldwide academic institutions and their patterns. According to him, administering the student community site built on ERP requires competent administration.

Santhi B (2017) studied the effects of information and communication technology on quality enhancement among the faculty members in engineering colleges in Salem district, Tamil Nadu. He realized the study was necessary. ICT has significantly

altered the way that engineering colleges teach their students. The study has shown that instructors at engineering colleges need to be knowledgeable in ICT. The objectives of engineering education, understanding of the engineering curriculum, and its design and instructional technology have always been in the thoughts of faculty members. According to his theory, there is no discernible difference between the faculty members' levels of satisfaction with ICT resources in relation to demographic factors. About the demographic characteristics, there is no discernible difference between the views of the faculty keeping in center the use ICT in the library.The researcher recommended that faculty members have frequent orientation programmes on effective ICT use, that qualified staff with ICT understanding be hired to support faculty members, and that an internal monitoring board for evaluation might be established. A distinct browsing center with cutting-edge amenities should be offered to promote better and more effective education.

Mahant A.M.(2018)studied ICT-based services in the Gujarat state. The research again shed light on the ICT resources in the libraries. He wanted to investigate not only how information and communication technology (ICT) was being used at different levels and parts of private university libraries, but also what resources, infrastructure, hardware, and software were available there. He made an effort to evaluate the caliber of ICT-based library and information services offered to users by Gujarat State's private university libraries. He raised awareness of the transformative application of ICT for efficient library operations. Rapid technological advancements enabled libraries to not only improve the quality of existing services but also to offer a diverse range of new services to users. The researcher suggested that the library should be computerizedso that modern methods can be used instead of traditional methods. Libraries should be funded from all possible sources so that they can purchase more ICT equipment. Libraries should provide their patrons with the most up-to-date software. Libraries should make the best use of software so that users can benefit from it.

Angom Shelley Singh (2017) In his research, he discussed the ICT applications in the university libraries of North East India. As per his opinion, ICT helps to share information anywhere, any place, from one corner to another. The goal of this research is to evaluate the use of ICT by libraries in their various services and

activities; to determine the existing library systems in terms of ICT applications; and to understand the problems and prospects of ICT applications in libraries. According to the findings of this study, the ICT system of university libraries should be improved. Sufficient funds should be provided to university libraries, as well as proper allocations for maintaining ICTs at university libraries in North East India, University facilities and infrastructure should be improved with future expansion in mind. University libraries' manpower must be increased with proper library qualifications and knowledge of ICT applications. He suggested that librarians be good administrators with good computer skills, that well-trained and skilled personnel be used to apply ICT in libraries; and that measures be taken to establish and train staff members.

Paras Jain (2017) The objectives of his study are to find the views of college administrators, students, parents and their locality wise stakeholders with respect to the cashless system in colleges and to find out the views of college administrators in connection with the cashless system in colleges. He hypothesised that there is no significant difference in the impact of the cashless system between rural and urban students; that the cashless system has no significant impact on the parents of college students; and that the cashless system has no significant impact on college administrators. He selected 20 colleges, 200 parents, and 200 students for his studies. He concluded that rural students and poor students faced problems due to a lack of knowledge about the usefulness of apps, net banking facilities, IT literacy, etc. Some urban parents also faced difficulties regarding digital payment. However, people are trying to change to adopt a cashless system. It is an important initiative towards a transparent and powerful economy.

Geetha Devi. V (2018) The study investigated how Ramanathapuram District faculty members from arts and science colleges used digital resources and services.She analyzed the awareness of digital resources among the faculty members. She studied their experience of using digital resources. She determined the level of satisfaction among the users of digital resources. This study focused on the use of multiple areas of digital resources by faculty members at Ramanathapuram district Arts and Science Colleges. She observed that in libraries, the most popular online service is e-journals. Internet Explorer is the most popular browser, and Google is the most popular search engine among users. The study also indicated some strategies to accomplish proper

and effective use of digital content by Arts and Science faculty members. The study recommended implementing an awareness programme for the use of digital resources in order to understand the problems encountered by users, as well as providing high-speed internet access, organizing training sessions, and motivating them to use digital resources.

Saroj Junghare (2020) In this research paper, the researcher studied the stakeholder's role in governance and administration in higher education institutions. She researched various stakeholders' roles in administration in HEI. She mentioned that stakeholders play a key role in the development of HEI. They are the important sources of the information that leads to the improvement of an institution. She relates the development of the institutions through stakeholders to NAAC perspectives. She felt that there was a need to define the role of stakeholders in the development process of HEI. The researcher bifurcated stakeholders as internal and external stakeholders. As per her opinion, management, faculty members/staff, and students are the internal stakeholders, whereas society, alumni, employers, and parents are the external stakeholders. She highlighted the responsibilities of each stakeholder in detail. She concluded that internal stakeholders are the prime stakeholders and can improve the HEI system. External stakeholders are influenced by the overall development of HEI.

Balram Singh (2020) The researcher's primary focus in this study is on the issues and challenges facing higher education in India. His research is to understand the current environment, new problems, and difficulties facing higher education in India. He came to the conclusion that we require an educational system that is cutting-edge, liberal, and capable of changing to meet the demands of a changing society, economy, and international environment.He proposed that to enhance the quality and to develop the education system, the utmost important change to be adopted is that every institution should adopt the advanced education system at all the levels of HEI. It should have adequate facilities for the learners. The expectations of the stakeholders should be fulfilled. The education system should be technology-based. But he felt that there are many factors which are affecting the enhancement procedure of higher education in India.

Ashwin Mehakare & others (2020) The survey on Digital Grampanchayat was studied in this research paper. The project's goal was to demonstrate to the

government and other stakeholders that grampanchayat online presence can generate massive benefits for digital versions and online databases can eliminate barriers to digital literacy. The project's motto was to encourage people to digitize; to improve participation, innovation, and governance at the grassroots levels through digital programme information and implementation; to recognise every grampachayat on a global mapping system; and to support grampachayat economic growth by promoting tourism and commercialising the gram/villages. The digital gramopanchayat is essentially a platform through which day-to-day information sharing across the country is possible. The governance of the authority is directly communicated. The authors recommended an Android application for eGovernance of grampanchayat through which villagers will get daily updates directly from the government. They can avail all the government services through a digital portal. They believe that a step towards digital grampanchayat will lead to paperless administration.

Bishnoi Umang (2016) has done a case study on the administration of higher education through colleges. He explains public administration in detail. In his opinion, the impact of technological inventions and the emergence of past industrial societies have increased the importance of public administration in people's lives. It has evolved into a tool for government advancement and improvement, and it can aid in the implementation of awaited developments. Then he focused on the educational administration. He stated that administration provides education at various levels, including primary, secondary, and higher education. The researcher designed and carried out this study to evaluate the Administration of Higher Education in the state of Haryana by evaluating specific elements of higher education relevant to the key components of higher education, which were related to the working conditions, interpersonal relations, and infrastructural facilities. Thus, a survey was conducted on eight colleges, choosing four government colleges and four aided colleges from the two districts of Ambala and Hisar because these locations had the established institutions of higher education. In his survey, he hypothecated five hypotheses, which are based on the teaching, learning, and administration of the colleges. He has pointed out some issues and suggested that it is necessary to develop and design a conceptual framework for the governance and funding of education with a focus on higher education, to establish a detailed plan for higher educational development of all

levels, appointment of full-time teachers with good service conditions and availability of adequate infrastructure facilities.

M, Prameela Rani (2016) studied the management of technology in higher education. The objective of the study is to understand the practices of technology management in Indian higher education, to describe information technology management processes in some selected HEIs, to collect and analyse views and perceptions of the people from the government, aided, and private sectors in those HEIs, and to implement policymakers' recommendations to improve technology management practices in higher education institutions. The researcher advised all stakeholders that finding new approaches to digitalization of the education sector is necessary for empowerment in higher education. He stated that the government has so far spent a lot of money on digital learning, but there is a need to reassess the guidelines and introduce fresh ones to meet the needs of today's digital world of education. Data analytics systems should be introduced as an emerging technology concept in universities to improve the effectiveness and reliability of analyzing data from various sources. Higher education institutions in India require world-class infrastructural facilities and digital board facilities. Training regarding the implementation of digital technology should be given to the principals of the educational institutions, which will help to find new dimensions in the digital world of the institution and will also encourage the other staff members of the colleges. He also suggested that software developers also need to develop user-friendly software that will be useful for students. Further, he has given suggestions to the students to use all the infrastructural facilities and digital technology provided by the institution in a proper way.

Kavede, Nitin Subhash (2021) discussed the role of examinations in the education system and the role of information technology in examination system. He also discussed the examination system in universities in India and the steps in the examination system. He stated that there are many limitations in the manual examination system, like numeric errors, time consumption, data reconciliation, maintenance of records, unfair practices, etc. He mentioned the various digital platforms introduced by the government of India as a major technology-based initiative in higher education, like Global Initiative of Academic Networks (GIAN),

National Institutional Ranking Framework (NIRF), National Digital Library, National Academic Depository (NAD), SWAYAM etc. The survey has been conducted by circulating two different questionnaires based on the ICT area of examination and the ICT quality in examination management. In the findings, he noted that the majority of teachers say that they do not get training for the use of ICT-based examinations, there is no technical staff available for help, and a workshop has not been organized to address the issues. Furthermore, he recommended that high-speed internet and appropriate software should be available for examination work; teachers' perception and examination administrative opinions about user-friendly software are different, which needs to be clarified; and pre and post-ICT-based examinations should be improved.

Sharma, Barot, and Gogri (2017) emphasised the significance of students', teachers', and management's participation, willingness, and acceptance in the concept of sovereignty in higher education. According to the study, independent universities must have the ability to raise funds on their own because they cannot simply rely on state financing. The Government of India has decided to change the regulatory framework in universities and colleges from Affiliated to Autonomous in an effort to improve the quality of higher education. Since the last few years, numerous colleges in Mumbai have applied for or are currently applying for autonomy. The findings indicated that the institution had positive perceptions of curriculum improvement, teaching methodologies, upgraded administration, recruitments, etc., It has been noted that staff's perceptions of the aided and unaided sections differ.

Madura Pawar (2021) focuses on digital literacy that refers to the ability to use digital resources for work in a secure and critical manner, both individually and socially. She emphasizes that on the primary characteristics of this 21st century literacy are the use of computers to discover, assess, generate, exhibit, and share information over the Internet. Knowledge acquisition and expertise in the field of ICT is one of the requirements for effective social integration in a temporary society and the labour market in urban India, while digital literacy is one of the requisite skills of a modern Indian in both urban and rural societies. Her research objective is to discover the role of digital literacy in the evolution of education in twenty-first-

century India. She highlighted the crucial role of teachers and students during pandemic period by conducting online classes on various digital platform like Zoom, Microsoft teams etc. She has shown her concern that to provide digital literacy among the teachers, many efforts are required particularly in rural area as some villages in Odisha has only 18 computers and computer literacy is only 10% of population.

G. Padmini Devi and others (2020) studied the students' perspectives on digital literacy in India during pandemic period. They reviewed the opinion of the students from the government, aided colleges from Andhra Pradesh and Telangana state. Aim of their study is to find out the infrastructure facilities used by students for e - learning, as well as the significant variation in skills and knowledge of multiple online techniques prior to and following lockdown. They recommended that training courses on online teaching-learning tools and platforms is required for both faculty and students in the future to make digital education more effective. The Indian government should generate a favorable virtual space for the students from the weaker sections to study. Extra credits earned through Swayam, NPTEL online courses can be added to students' credit to inspire them to continue pursuing online education in the post-Covid-19 era. Certificate courses and workshops on digital communication skills for students to improve their digital learning experience can be arranged. Government support is greatly required to build an adaptable education system in India that will ensure the growth of employability and efficiency skills in today's youth.

Manjula and Dr. Padmamma (2016) and other's study area was BLDE university's faculty member's knowledge of digital resources. They observed that all the libraries do not have all the resources. They suggested that participation in various coalitions will help to relieve some of the budget constraints. They also suggested that to create the awareness among the staff members for the use of digital platform, various workshops and orientation programmes should be organized. They concluded that the need to improve the abilities of the staff, stays unchanged. They focuses on the impact of ICT and changes in technology on the increase in the volume of information in various directions and forms. As a result, facilities must reshape and update themselves in order to use digital technology.

Suman Chatterjee and others (2019) focused on the college management system. They pointed out that currently all the college activities are done manually which is time consuming. They emphasized on the College Management System which is an android-based application, managing all departmental jobs on digital platform . This is beneficial to both students and colleges. The data is stored on the server. Every staff and student is having their password. The student can easily view their result through this android app. It has three modules form staff, students and admin. This app is related to the examination working pattern which avoids duplication of work, creates transparency, is time saving and easily accessible. It is a systematic app which ensures that all the standard operating procedures are followed in a proper way. The researcher is a MCA student who developed this app and felt that this software will reduce the complexity and accelerate the process of preparing and managing results. The proposed system will reduce administrative and faculty work time. This will improve the quality of work.

Shallu, Sihmar D. and Meena R.K. (2019) discussed about the innovative concepts for digitalization in India. She focused on social, economic and environmental impact in the process of digitalization. She stated that analysts estimate that the Digital India plan could increase GDP by $1 trillion by 2025. It has the potential to play a significant role in macroeconomic variables such as Economic growth, job creation, labour productivity, business growth, and revenue leakages for the government. According to the World Bank, a 10% rise in mobile and internet service penetration raises per capita GDP in developing countries by 0.81 and 1.38 percent, respectively. India has the world's second largest telecom market, with 915 million wireless subscribers, and the world's third largest Internet market, with nearly 259 million broadband connections. There is still an enormous economic option in India because tele-density is only 45 percent in rural India, where more than 65 percent of population lives. Further she stated that due to obstacles and limitations such as middlemen, illiteracy, ignorance, poverty, lack of resources, details, and investment opportunities, social sectors such as learning, medical services, and financial services are unable to connect with the people. These difficulties have resulted in an uneven growth in rural and urban areas, with significant differences. She mentioned that major technological variations will further affect the economic system, and will also result in environmental changes. Upcoming technologies will help to reduce the

emissions by saving fuel, waste disposal, and creating ecofriendly workplaces, ultimately leading to a greener environment. The ICT sector contributes to the effective management and utilisation of limited and non-renewable reserves. Cloud computing helps the environment by increasing adaptability.

2.18 RESEARCH GAP :

In the last few years, the use of digital platforms among people has gone up emphatically. The focus of traditional technology has shifted to digital technology. People have boosted the Digital India concept. The education sector is also moving to the innovative world of digitalization. The innovative use of digital tools and technologies in the educational process is termed "digital education." The COVID pandemic emphasizes the need for digital technology. Colleges have also started using digital platforms in academics, administration, and the library. Literature related to digitalization in academics and libraries is available. On the basis of the above literature review, the researcher identified the following research gap. The literature is available on college administration, but the literature on digital college administration is very less. Research has not been done on digital technology-based aided college administration. In eGovernance the project was started by the Government for the development of the country but very little research work is done in this area. There is a lack of clarity and more confusion about the digital administration in colleges. There is not a common software or platform for the administrative procedures in the colleges. Researcher also searches for literature which is particularly about the Mumbai Region’s aided general colleges administration. There is no such study that has been found which will be focused on digital college administration in the Mumbai Region. Also, there is very little research studied related to the college administration.

The researcher set a goal to fill the identified gap in the literature review through a detailed study of needs, awareness about digital technology in college administration in a developed city like Mumbai, and also aimed to find out the efficiency level of the staff to achieve digital administration.

CHAPTER 3
RESEARCH METHODOLOGY

3.1 INTRODUCTION

The art of scientific investigation is known as research. As a result, research methodology is regarded as the foundation of any research project or thesis. Research is an important prerequisite condition for solving socio-economic problems and achieving social-economic development. With the help of constant research and investigation, our society has progressed to its current form. The result of research and investigation has been a tremendous speed up from the Stone Age to the Computer age. The future development process of society is ceaseless due to research. The process of development is dynamic and it will incessantly change. The academic consciousness of the human mind predates research. Man has always attempted to hark back in time to gain a better understanding of the evolutionary process. One of the most important tool which is the building block along with sustaining pillar of every disciple is the research.

According to **Lundberg (1942)**, a systematic observation along with classification & additional interpretation of the data is basically research methodology.

Fred Kerlinger (1986) additionally validates this thought stating that scientific research is a systematic, controlled and critical investigation of propositions about various phenomena.

Grinnell (1993) further simplifies the procedure stating that the word research is composed of two syllables, re and search. The dictionary defines the former as a prefix meaning again, anew or over again and the latter as a verb meaning to examine closely and carefully, to test and try, or to probe. Together they form a norm describing a careful, systematic, patient study and investigation in some field of knowledge, undertaken to establish facts or principles.

Kothari (2004) defines research as an original contribution to the existing stock of knowledge making for its development.

Thus, it can be seen that research is an objective, structured and sequential sort of study with a clear implicit set of aims from the aforementioned descriptions. To get reliable research results, the methodology must include the selection of appropriate research tools and methodologies.

3.2 RESEARCH REQUIREMENT

For the nature of the issue, a researcher must create a study approach. It should be emphasised that while the approach to problem-solving research is the same, the study methodology may vary. The researcher is expected to comprehend both the methodology and the study design needed for the research. A research-based strategy provides the study credibility and produces valid scientific results. It also has a thorough structure that aids in keeping researchers focused, creating a system that is effective, beneficial and workable.

The analysis of diverse works of literature laid the groundwork for creating a new framework for the study which was crucial for obtaining thorough knowledge. Because of these authors' expertise in their respective fields, it was feasible to find reliable and accurate information. Due to this, the researcher was able to conduct accurate, comprehensive and useful research.

In this study, the researcher has focused on the significance of digital technology in general aided college administration. The said research is not studied or reviewed earlier. The researcher, herself is closely connected to the college administration, which benefits the research work. To know the facts and the need for digitalization in colleges, the researcher studied in-depth the pros and cons of digital technology and tried to give some outputs which will be advantageous for further study.

3.3 RESEARCH GAP ANALYSIS

Comparing actual output or results to intended and anticipated research findings is known as gap analysis. It is a way of determining the disparities between actual and expected performance in an organisation. It highlights areas that can be strengthened. A research gap in a topic or subject that has not been investigated previously in a person's field of study. A research gap is an unexplored area that is discovered through a review of the literature and has the possibility for more study or investigation. It is necessary to perform a thorough assessment of the available literature on a certain issue in both broad and specific areas in order to identify gaps in literature. A research gap is defined as an issue that has yet to be discussed or responded to in earlier research such as publications, research papers or other relevant documents. It was discovered after reviewing the literature that there were gaps in the research.

The first step when writing the research gaps part is to provide an overview of the overall level of understanding and studies in the field of research. This step aids in the development of an overview of the elements that may be pertinent to the study. The second step entails a comprehensive reading of previous research publications on the subject. This step also includes advice and views from the experts in the field. According to the reviewed literature, a perspective on the specific subject must be outlined by identifying all key data. Finally, the necessity or importance of acknowledging the gaps listed should be explained.

The researcher has focused on digital administration in aided general colleges in this study. Although the government today actively supports e-Governance and the idea of paperless office, it is seen that many people have not yet adopted digitaliization in administration due to factors such as a lack of training, resources, initiative and knowledge, etc.

These gaps needed to be explored further because it was necessary to relate and analyse whether they would apply equally to the college administration. Especially for organisations where staff salaries are paid by the government, the mindset and approach are different. The same will be true when further studies indicate the topic here.

In the present study, the researcher has found gaps in the literature studied. It is observed that studies have been done on college administration, but specific studies on digital college administration have not yet been done by anyone. Some of the reviews show that library automation issues are discussed, whereas office automation in the college administration is not yet discussed. Studies on digital college administration in aided general colleges are not yet covered in any research work. Though Mumbai is a metropolitan and advanced city, the study of digitalization in administration in Mumbai region's colleges has not yet been done.

The researcher has conducted a review of many related studies or research at the local and national levels that are related to the current research topic. i.e. A study of Digital Administration in Aided General Colleges of Mumbai Region. After reviewing several studies contributed by many researchers on the different sub-topics of college administration and digital technology in educational institutions, it was found that they discussed many other issues dealing with training needs and determination of training programmes for the administrative staff, educational innovations in the affiliated colleges of India, utilization of digital resources and services provided by college faculty members, issues with educational administration, information and communication technologies affect library management and operation, how to improve the quality of higher education by effectively implementing ICT in the classroom, use ICT in e-governance of higher education with a focus on colleges, and other topics. The analysed studies revealed that while many of them concentrated on a specific issue or feature of digital technology, none of them addressed the usage and necessity of this technology for assisting with college administration and enhancing the productivity of administrative staff.

The present study has focused on the need of all the stakeholders of general aided colleges in modern times, which have not been studied collectively by earlier studies. It also focuses on digital platforms and the use of technology in modern aided college administration of HEI which has yet to be studied.

The researcher expects that digital technology will have positive effects on college administration. Further, digital technology will resolve various issues of college administration and it will help to increase its efficiency, productivity and quality. Now after completion of the final study, it is observed that digital technology in general

aided college administration deals with various components and it is a very vantage technology.

3.4 RESEARCH DESIGN

The framework of the study methods and procedures a researcher selects is known as the research design. The plan of research methodology and strategies that a researcher chooses to initiate a study, is referred to as the research design. The design enables researchers to perform the perfect research methods, adequate for the particular topic and set their research to be successful. A research design is a method which uses actual data to answer research questions. Creating a research design entails thinking about the various aspects of research, like setting goals and strategies, deciding on the type of research; sampling method; and steps and techniques for data collection and analysis.
It also assures researchers that the policies that are adopted to complete the research work match with the research goals by analysing appropriate data.

The researcher's methods for the current study include survey research and interviews. Quantitative research is used to draw statistical inferences and gather crucial, useful information. To draw conclusions from statistical data and conduct accurate and efficient data analysis, quantitative research methodologies are required. To gather data, the researcher has created two distinct questionnaires for the Principal, the teaching and administrative personnel, and the other for students.

3.5 OBJECTIVES OF THE STUDY

This study put forth following objectives :

1. To study student’s efficiency and perceptions about digital technology

2. To know whether the leverage of digital technology for communicating with college staff is related to a student’s study year and specialization.

3. To analyze the distinctness of posts held and qualifications acquired by the staff with the adoption of digital technology in higher education institutions.

4. To understand the interrelationship of various components in higher education with respect to digital technology.

5. To know the perception of the aided college staff with respect to various factors of digital technology in higher education institutions.

3.6 HYPOTHESIS OF THE STUDY

In this study, the following hypotheses are taken into account.

Hypothesis-1

H1 : There is an effect on the efficiency of digital technology in aided general colleges due to the usability of digital technology perceived by students.

Hypothesis-2

H1: There is a difference in leveraging of digital technology amongst students of each graduation year to communicate and interact with faculties and administrative staff of aided general colleges.

Hypothesis-3

H1: There is a difference in leveraging of digital technology amongst students of each program to communicate and interact with faculties and administrative staff of aided general colleges.

Hypothesis-4

H1: There is a difference in adoption of digital technology amongst all staff position in aided general colleges.

Hypothesis-5

H1: There is a relationship between the different components of digital technology being used in aided general colleges.

Hypothesis-6

H1: There is a difference in adoption of digital technology in all sets of qualified staff in aided general colleges.

Hypothesis-7

H1: There is difference in staff perception on the components of digital technology in aided general colleges.

Table showing correlation between objectives, hypothesis and questionnaire

Objective No.	Hypothesis No.	Question No.
1	H1	Student's questionnaire nos. 3,5,6,7,8,9,11,12
2	H2,H3	Student's questionnaire nos. 1,2,4,10,12
3	H4,H6	Staff's questionnaire nos. 14 to 18, 20,21
4	H5	Staff's questionnaire nos. 1 to 26, 28 to 30, 33 to 37
5	H7	Staff's questionnaire nos. 1 to 26, 28 to 30, 33 to 37

Table 3.1 : Correlation between objectives, hypothesis and questionnaire

3.7 RESEARCH DATABASE

3.7.1 Primary Data:

Primary data is unreleased, first-hand information relevant to specific research problems. Primary data is more accurate, genuine and unique to the research goals because it is unutilized and new. Primary data is a data that is directly collected from first-hand sources for specific reasons or one's research work. Experiments, surveys, observation and interviews are all methods for gathering primary data. The researcher has used the survey method, interview and discussion method as a tool for the primary data collection from the respondents. Further, the researcher has also used the observation method to collect the data. As a result, a well-structured questionnaire is used as a research instrument to collect data from the targeted sample. Personal interviews with key stakeholders are also necessary to understand the research parameter.

Data is an essential component of any research study. It is nearly impossible to conclude without first gathered and analyzed information. Collection of data is a methodology that provides the collection of information or data from all appropriate sources in analyzing the research question, verifying the hypothesis and interpreting the results. Data collection is a method of collecting information or outcomes of interest by following a standardized and predetermined process. The survey method of data collection is employed in this study to get pertinent research data from the selected stakeholders. The effectiveness, accuracy and validity of the data are impacted by the data collection procedure.

For the purpose of this research, two questionnaires were prepared and circulated. One to to the Principal, teaching and administrative staff and second to the students of aided general colleges of the Mumbai region. Moreover in-depth interviews were conducted with some stakeholders.

This has enabled the researcher to identify the present scenario, needs and possible solutions for effective adoption in digital administration of aided general colleges.

Structure of the Questionnaire

The researcher designed two questionnaires for two different groups of stakeholders. One for college employees, which consists of the Principal, teaching and administrative staff (Class II and Class III) and another for the customers of the colleges, i.e., for the students. Both the questionnaires were divided into two parts. The first part consisted of personal details and the second part of the questionnaire consisted of information related to the actual research work, which was correlated to the objectives and hypothesis of the study.

Questionnaire for Principal, Teaching and Administrative staff (class II and Class III):

For Principals, teaching and administrative staff (class II and Class III), a common questionnaire was formed to get their views on digital college administration. It is circulated in various colleges to get their opinions. In the first part of the questionnaire, the researcher obtained the personal and demographic information from the respondents. It consists of seven questions, which include age, qualification, faculty, post, experience etc. The second part of the questionnaire was about the need for digital technology in college administration, the efficiency of the staff to deal with digital college administration, and awareness of the digital platform in college administration. There were a total of 38 questions, out of which 15 questions were related to the need for digital technology in colleges, 10 questions were about the awareness of digital administration, and 13 questions to know how the efficiency level of college administrative staff can be improved through digital technology. All these questions are measured through Likert's five-point agreement scale: such as 5 - Strongly Agree, 4 - Agree, 3-Neutral, 2 - Disagree, and 1 - Strongly Disagree.

Questionnaire for students:

Students play a key role in college administration. They are the main patrons of the college. Their views about digital technology are very important. Keeping this in mind, the researcher framed a separate questionnaire for students. Today's generation is very user-friendly with digital technology. They expect a fast result from the process. So to know their opinion about the college's digital administration, a questionnaire was formed. It is circulated in various colleges for the collection of data through online and offline methods. In the first part of the questionnaire, the researcher obtained personal information from the respondents. The second part of the questionnaire was about the need for digital technology in college administration. The said questionnaire consists of 14 questions which are related to the need for digital technology in colleges. Likert's five-point scale of agreement is used to score each of these questions: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly Disagree.

The researcher formed both the questionnaires in a very simple way, which is easy to understand and answer.

3.7.2 Secondary Data:

Secondary data is the information accumulated by someone else on the chosen research topic as well as information that is already available or in use. When this data is used in research from other source materials, it is referred to as secondary data. Secondary data for this study was gathered from published research papers, reference materials, journals, and websites including Shodhganga, Google Scholar, naac.gov.in, jdhemumbai.org.in, dhepune.gov.in, mkcl.org, and mu.ac.in, etc.

3.7.3 Target Population:

The sample population must be researched and defined before the target population, which is the totality of all elements bearing specific specified criteria. The Central side of Mumbai, from Dahisar to Churchgate and up to Mulund, has

been specifically picked by the researchers as a study region. There are 80 aided general education colleges situated in Mumbai Region. In 2019-20 approximately 3163 staff members including Principals, teaching and administrative staff were filled in the sanctioned post and 121740 students were on the roll which is the universe or population of the present study.

3.7.4 Sampling Design and Size:

A sample design is a particular strategy for selecting a sample from the population. It is the method or process used by the researcher to select various components related to the sample. Sample design also results in a process for determining the number of variables to be included in the sample. As a result, sample design is set prior to data collection. The researcher should select samples that are reliable and appropriate for his research study from among the different kinds of sample design techniques. It is necessary that before proceeding with the data collection, the researchers should confirm the genuine design of the sample, which should be a truly procurator sample. It must be such that the study's findings can be applied to the universe with a reasonable level of certainty.

The sample design is the method of selecting a portion of a population to represent the entire population. The exactness of the research findings is determined by the sample size representing the genuine population of the study.

The sample size of Principal, teaching and administrative staff (class II and Class III) was calculated considering 3163 population. Cochran's formula is used to find the sample size as follows:

The formula for calculating the sample size (n): $n = [z^2 * p * (1 - p) / e^2] / [1 + (z^2 * p * (1 - p) / (e^2 * N))]$

Here: z = 1.96 for a confidence level (α) of 95%, p = proportion (expressed as a decimal), N = population size, e = error margin.

z = 1.96, p = 0.5, N = 3163, e = 0.05

$n = [1.96^2 * 0.5 * (1 - 0.5) / 0.05^2] / [1 + (1.96^2 * 0.5 * (1 - 0.5) / (0.05^2 * 3163))]$

n = 384.16 / 1.1215 = 342.555

n ≈ 343

Finally, the sample size (with finite population correction) is equal to 343

To ensure 95% confidence level with the largest variability and a maximum error margin of 5%, it was necessary to poll at least 343 principals, teachers, and administrative staff, according to Cochran's Modified Sample Size calculation.

The sample size of students was also calculated considering 121740 population. Cochran's formula is used to find the sample size of students here:

The formula for calculating the sample size (n): $n = [z^2 * p * (1 - p) / e^2] / [1 + (z^2 * p * (1 - p) / (e^2 * N))]$

z = 1.96 for a confidence level (α) of 95%, p = proportion (expressed as a decimal), N = population size, e = margin of error.

z = 1.96, p = 0.5, N = 121740, e = 0.05

$n = [1.96^2 * 0.5 * (1 - 0.5) / 0.05^2] / [1 + (1.96^2 * 0.5 * (1 - 0.5) / (0.05^2 * 121740))]$

n = 384.16 / 1.0032 = 382.952

n ≈ 383

The sample size (with finite population correction) is equal to 383

Hence sample size formula of Cochran's is notified that it was required to survey a minimum of 383 students to ensure 95% of Confidence levels with maximum variability and a maximum of 5% of the error margin.

Despite the time constraints and respondents based on geography spread throughout different parts of Mumbai's suburban city, researcher was able to reach 375 and 708 Principals, teaching and administrative staff (class II and Class III) and students respectively. The information was gathered both online and offline. Even though, the pandemic affected data collection during a specific period, the researcher was able to collect some data and conduct in-

person interviews with stakeholders. This also aided in gathering any differences in perception between before and after the pandemic.

3.7.5 Statistical Packages for Data Analysis

To analyze and interpret the data effectively is impossible without the use of modern statistical packages concerning description and inferences. Therefore, Microsoft Office Excel 2010 and Statistical Package for Social Science (20.0^{th}Version) are used to process and interpret the data effectively.

3.7.6 Statistical Techniques for Data Analysis

The collected data is tabulated to satisfy the objectives of the study. The fact is that only tabular analysis is not sufficient to interpret the data effectively. Therefore, considering the objectives and Hypothesis of the study, some appropriate statistical techniques are also used for the data analysis and interpretation, when it's vital to know how many participants selected a particular response, using the percentage is suitable, the frequency of participants in the category is divided by the total number of participants and then multiplied by 100% to get the percentage.

The normal depiction of a set of numbers is referred to as the average or mean (or data set). An entire set of data is represented as one number by the term "average." The most prevalent kind of average is the arithmetic mean, which is computed by adding up all of the values in a group and then dividing that total by how many values are in the given set.

The standard deviation shows absolute variability and a co-efficient of Variance denotes the relative variability used in the analysis and is formulated as follows:

Standard Deviation is formulated as,

$$\Sigma = \sqrt{\frac{\Sigma X^2}{N} - \left(\frac{\Sigma X}{N}\right)^2}$$

Co-efficient of Variation abbreviated as C.V.

Where,

$$C.V. = \frac{\sigma}{\bar{X}} * 100$$

σ = Refers the Standard Deviation

$\bar{X}$ = Refers the Mean

For testing the hypothesis of the study the researcher has used the One way Anova, Simple linear regression, Pearson Correlation and Friedman Test.

Moreover, some cartographic devices for data analysis of arrivals and value transactions by a bar graph, line graph, and pie-chart are also used to show the share of factors/components in total, compare variables and trend of variables etc.

3.8 METHOD OF ANALYSIS

In the current study, the researcher's chosen approach of data analysis is statistical analysis. Another name for it is a descriptive analytical approach. It is a quantitative approach of data analysis that entails the gathering, processing and validation of data. The process of applying statistical analysis to quantify the data involves running a number of statistical operations. Survey and observational data are examples of descriptive data used in the quantitative data technique. In the current study, researchers used SPSS (Statistical Package for the Social Sciences, 20th Version) and Microsoft Excel 2010 to analyse data and evaluate hypothesis.

3.9 THE PILOT STUDY AND PRETESTING

To understand the accuracy and develop the variables and find out the problems while conducting the survey, to test the questionnaire, a Pilot Study was undertaken. It was essential through the pilot study to find out ways to reduce research errors. In this study, a total of 40 respondents were selected. The valid suggestions were incorporated into the questionnaire. When the researcher was satisfied that the questionnaire had been sufficiently tested, after this, was decided the final design or structure of the questionnaire for the survey. This helped in improving the questionnaire and indicated the kind of responses that would be forthcoming. It was found that the questionnaire was long and it was difficult to get answers to questions in various categories. Some changes in questions in the questionnaire were made after the conduct of the pilot study and it has been simplified.

With a few changes and additions, the questionnaire was prepared suitably. Utmost efforts were taken to make the questionnaire simple and easily understandable. So that the respondents would not find any difficulty in answering the questions. The study area was Mumbai Region and the language of the questionnaire was English.

In the current study, the internal consistency of grouped logical (Likert Scale) questions is examined using Cronbach's Reliability Test. Lee Cronbach created Cronbach's alpha (also known as the coefficient alpha) in 1951 to quantify reliability or internal consistency. Consistency is another word for reliability.

To determine the reliability of surveys with several Likert scale questions, use Cronbach's alpha tests. These inquiries gauge latent variables, or concealed or imperceptible characteristics, such as a person's conscientiousness or openness. In the actual world, these are incredibly challenging to quantify. You may determine how closely connected a bunch of test items are by looking at the Cronbach's alpha.

Cronbach's Alpha Formula

Following is the formula for Cronbach's alpha:

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

Where:

- N = is the item number.
- $\bar{c}$ = average covariance between the paired item.
- $\bar{v}$ = average variance.

Rule of Thumb for Results

A general guideline for evaluating alpha for questions with two possible answers, or questions using a Likert scale, is as follows:

Cronbach's α	Internal Consistency
$\alpha \geq 0.9$	Excellent
$0.9 > \alpha \geq 0.8$	Good
$0.8 > \alpha \geq 0.7$	Acceptable
$0.7 > \alpha \geq 0.6$	Questionable
$0.6 > \alpha \geq 0.5$	Poor
$0.5 > \alpha$	Unacceptable

Cronbach's Test for Principals, Teaching and Administrative Staff

Question/Components:	30
Sum of item Variations:	15.5
Variance of Total Scores:	77.2344
Cronbach's α:	0.8269

Table 3.2 Cronbach's test result for Staff questionnaire

Thus, the internal consistency of the above Likert Scale Data is Good, because Cronbach's α value is 0.8269.

Cronbach's Test for Students

Question/Components:	15
Sum of item Variations:	10.92
Variance of Total Scores:	6.33
Cronbach's α:	0.8699

Table 3.3 : Cronbach's test result for students questionnaire

Thus, the internal consistency of the above Likert Scale Data is Good, because Cronbach's α value is 0.8699.

Thus, the internal consistency of all Likert Scale Data responses is Good and responses are closely related because Cronbach's α value is between 0.9 and 0.80 ($0.9 > \alpha \geq 0.8$).

3.10 CONCLUSION

The research approach that was applied to the gathering and analysis of sample data is explained in this chapter. In order to provide the research study in all disciplines a quantitative and qualitative shape, research methodology is essential. The study methodology provides instructions for choosing relevant data sources, data gathering instruments, research sampling, sample procedures, and data analysis statistical methods. The researcher has gathered both qualitative and quantitative data from the right sources. The researcher also employed the Stratified Random Sampling Method to get information from respondents. For the data analysis and to get the right results, the right statistical approaches for hypothesis testing are used. When applying research methodologies for data analysis, extreme effort has been taken to choose statistical procedures that are free of the researcher's prejudice and offer an accurate summary of the issue being investigated.

CHAPTER 4

DATA ANALYSIS AND INTEPRETATION

4.1 INTRODUCTION

The most crucial and essential aspect of research is data analysis. It is the process of clarifying a complex idea by differentiating the various components contained within it using particular methods. The researcher's understanding of the collected data regarding their own research study is referred to as interpretation. This chapter comprises data analysis and results derived from the researcher's study data. The data was collected through the questionnaire. Data analysis was done using the replies from students, staff and Principals. Utilizing a variety of statistical techniques, the data was analyzed. The researcher used testing and measuring methods at every step to ascertain the outcome of this study in the proper direction. The analyzation of the accumulated statistics assigns meaning to the collected information of digital technology determining the conclusion that Digital Technology resolves various issues of college administration and it helps to increase its efficiency, productivity and quality.

This chapter deals with the need of digital technology in college administration, awareness about digital administration and change in efficiency of administrative staff due to Digital Technology, usage of digital platform by the various groups. Data analysis and interpretation in present chapter enables the researcher to identify the present scenario, needs, expectations and possible solutions for efficient College administration through digital technology.

4.2 PERCEPTION OF PRINCIPAL TEACHING AND ADMINISTRATIVE STAFF (CLASS II AND CLASS III)

4.1 Year of establishment of the colleges

Table no.4.1 and Chart no. 4.1 indicates the classification of colleges on the basis of its establishment year. Out of total colleges, 80 % percent (maximum) colleges have

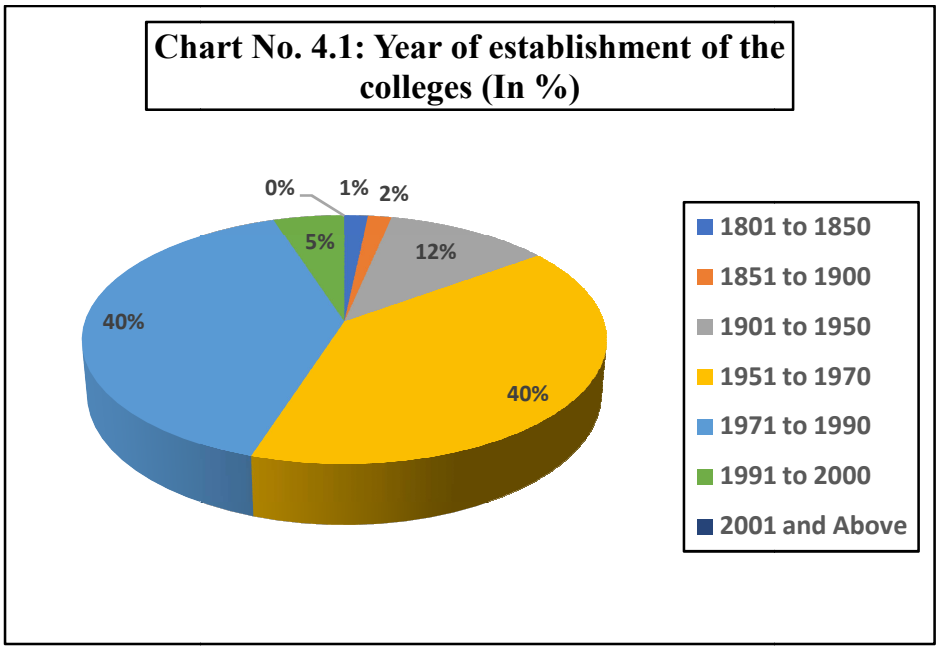
been established between the years 1951 to 1990. Whereas, 3.4 % colleges have been established from 1801 to 1900 and no college has been established after 2001. From the data, we can conclude that maximum colleges (80%) colleges have been established after independence i.e. from 1951 to 1990 due to Government's policy to provide education to everyone, investment in education and focus on education as a major factor of socio-economic development.

Table No. 4.1

Year of establishment of the colleges (In %)

Sr. No.	Year of establishment	Frequency	Percent
1	1801 to 1850	01	1.7
2	1851 to 1900	01	1.7
3	1901 to 1950	07	11.7
4	1951 to 1970	24	40.0
5	1971 to 1990	24	40.0
6	1991 to 2000	03	5.0
7	2001 and above	00	0
	Total	**60**	**100.0**

Source:*Field Survey*



4.2 Distribution of respondents according to type of faculty

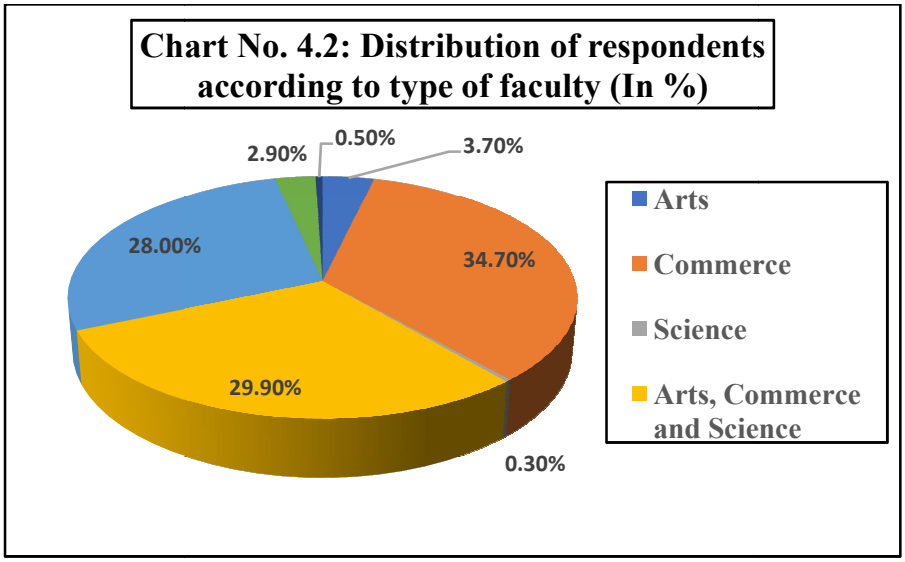
The table 4.2 and Chart no. 4.2 shows the distribution of sample respondents according to the type of faculty / College. Out of the total respondents, 34.7 % (maximum) respondents belong to commerce faculty colleges, followed by (29.9 %) respondents, who are belong to Arts, Commerce and Science faculty colleges. On the other hand, only 0.5 % respondents (minimum) belong to Arts and Science colleges. Thus, it is observed that maximum respondents 34.7 % belonged to Commerce faculty colleges.

Table No. 4.2

Distribution of respondents according to type of faculty (In %)

Sr. No.	Faculty	Frequency	Percent
1	Arts	14	3.7
2	Commerce	130	34.7
3	Science	1	0.3
4	Arts, Commerce and Science	112	29.9
5	Arts and Commerce	105	28.0
6	Commerce and Science	11	2.9
7	Arts and Science	2	0.5
	Total	**375**	**100.0**

Source:*Field Survey*



4.3 Distribution of respondents according to type of position of respondents

The table 4.3 shows distribution of sample respondents according to their positions in the college. Out of total respondents, 50.9 % (maximum) respondents were presiding as Administrative Staff, followed by Teaching Staff (44 %). whereas, only 5.1 % (minimum) respondents were presiding at the Principal designation. Thus, it is observed that maximum respondents presided as Administrative Staff.

Table No. 4.3

Distribution of respondents according to type of position of respondents (In %)

Sr. No.	Post	Frequency	Percent
1	Principal and Teaching Staff	184	49.07
2	Administrative Staff	191	50.9
	Total	**375**	**100.0**

Source:*Field Survey*

4.4 Distribution of respondents according to age

The age of a person is expected to bear an influence on the understanding of social issues. Age of a person decides the grasping capacity of a person and the work

potential. Hence, an analysis of the age-wise distribution of respondents is made. Table No. 4.4 and Chart no. 4.3 show the frequency distribution of respondents on the basis of age.

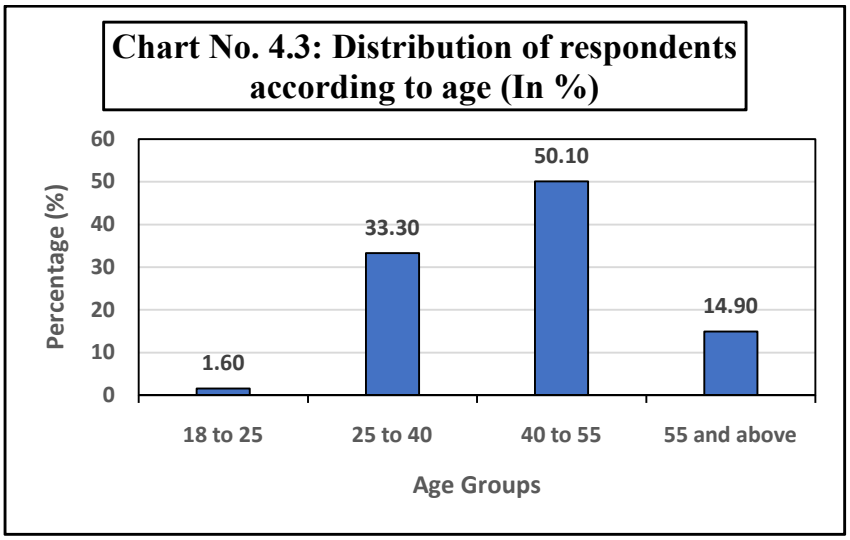
Out of the total respondents, 50.1 % (maximum) respondents were ranging between 40 to 55 years age, followed by 33.3 % respondents, which were ranging between 25 to 40 years age, whereas only 1.6 % (minimum) respondents were ranging between18 to 25 years age. The above data concludes that maximum respondents were elderly and matured enough and having more experience, because 83.4 % of respondents were ranging between 25 to 55 years as age.

Table No. 4.4

Distribution of respondents according to age (In %)

Sr. No.	Age Group	Frequency	Percent
1	18 to 25	6	1.6
2	25 to 40	125	33.3
3	40 to 55	188	50.1
4	55 and above	56	14.9
	Total	**375**	**100.0**

Source:*Field Survey*



4.5 Respondent's educational qualification:

One of the determining factors of the level of skill of the human resource & understanding of social issues is the respondent's educational background. Table No. 4.5 and Chart no. 4.4 shows educational status of sample respondents.

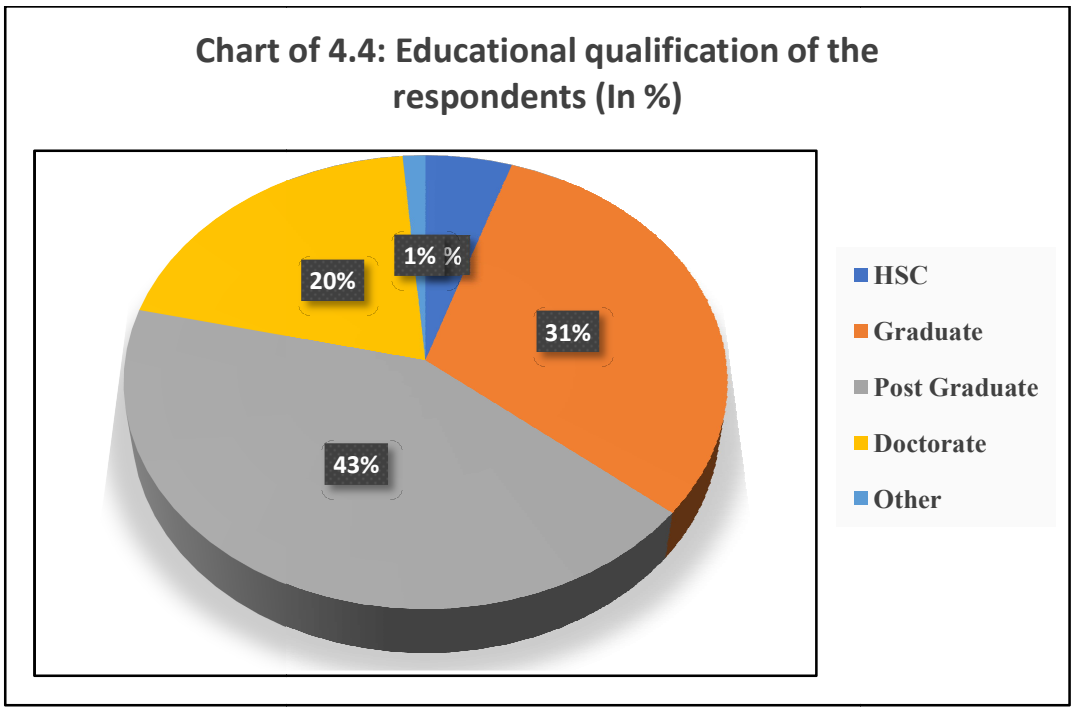
Out of the total respondents 20% respondents were doctorate, 42.4 % respondents (Maximum) were Post Graduates, followed by 30.9% respondents, who had completed Graduation and only 0.3 respondents had completed their Post Graduate and other educational qualifications. Thus, it is clear that maximum respondents had a good skill and understanding of social issues, because the educational status of respondents was higher i.e. about 73.3 % of employees were graduate and post graduate.

Table No. 4.5

Educational qualification of the respondents (In %)

Sr. No.	Qualification	Frequency	Percent
1	HSC	19	5.1
2	Graduate	116	30.9
3	Post Graduate	160	42.7
4	Doctorate	75	20
5	Other	5	1.3
	Total	**375**	**100.0**

Source:*Field Survey*



4.6 Distribution of respondents according to experience

The experience of a respondent bears an influence on productivity and the understanding of various issues. Hence, an analysis of the distribution of respondents on the basis of experience is made. Table No. 4.6 and Chart no. 4.5 show frequency distribution of respondents on the basis of experience.

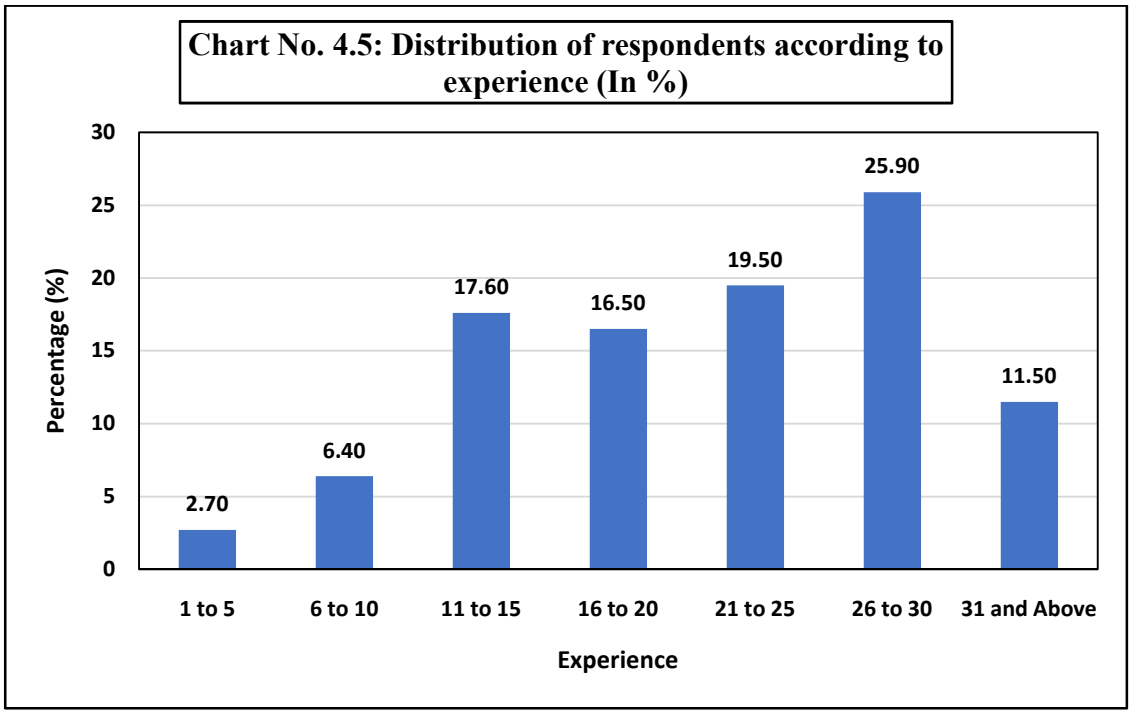
Out of the total respondents, 25.9 % (maximum) respondents were ranging between 26 to 30 years of experience, followed by 19.5 % respondents were ranging between 21 to 25 years of experience whereas, only 2.7 % (minimum) respondents were ranging between 1 to 5 years of experience. The above data concludes that maximum respondents were having high productivity and enough understanding, because 25.9 % of respondents were ranging between 26 to 30 years of experience.

Table No. 4.6

Distribution of respondents according to experience (In %)

Sr. No.	Experience	Frequency	Percent
1	1 to 5	10	2.7
2	6 to 10	24	6.4
3	11 to 15	66	17.6
4	16 to 20	62	16.5
5	21 to 25	73	19.5
6	26 to 30	97	25.9
7	31 and Above	43	11.5
	Total	**375**	**100.0**

Source:*Field Survey*



4.7 Likert scale data index

Table no. 4.7 reveals Likert scale index and its descriptive meaning.

The most popular technique for sizing replies in survey investigations is the use of Likert scales. The Likert scale is used in survey questions that ask respondents to rate

their level of agreement, from strongly agree to strongly disagree. Statistical mean score of Likert Scale Responses reveals the meaning from strongly agree to strongly disagree.

Table No. 4.7

Likert scale data index

Likert-Scale	Interval	Difference	Description
5	5.00 – 4.20	0.80	Strongly agree
4	4.19 – 3.40	0.79	Agree
3	3.39 – 2.60	0.79	Neutral
2	2.59 – 1.80	0.79	Disagree
1	1.79 – 1.00	0.79	Strongly Disagree

4.8 Digital Technology helps to maintain administrative records (Accounts related, Government related, Management related)

Table no. 4.8 and Chart no. 4.6 show respondents' perception about the role of digital technology to maintain administrative records.

Out of the total respondents, 62.1 % (maximum) respondents strongly agree, followed by 34.4 % respondents who agreed and only 0.3 % respondents disagree on the positive role of digital technology to maintain administrative records. According to the descriptive statistics, the Coefficient of Variance is 13.46 percent, the Standard Deviation is 0.616, and the Mean is 4.6. There is less variation in the response of the sample data acquired since the COV is less than one third (33%) of the total.

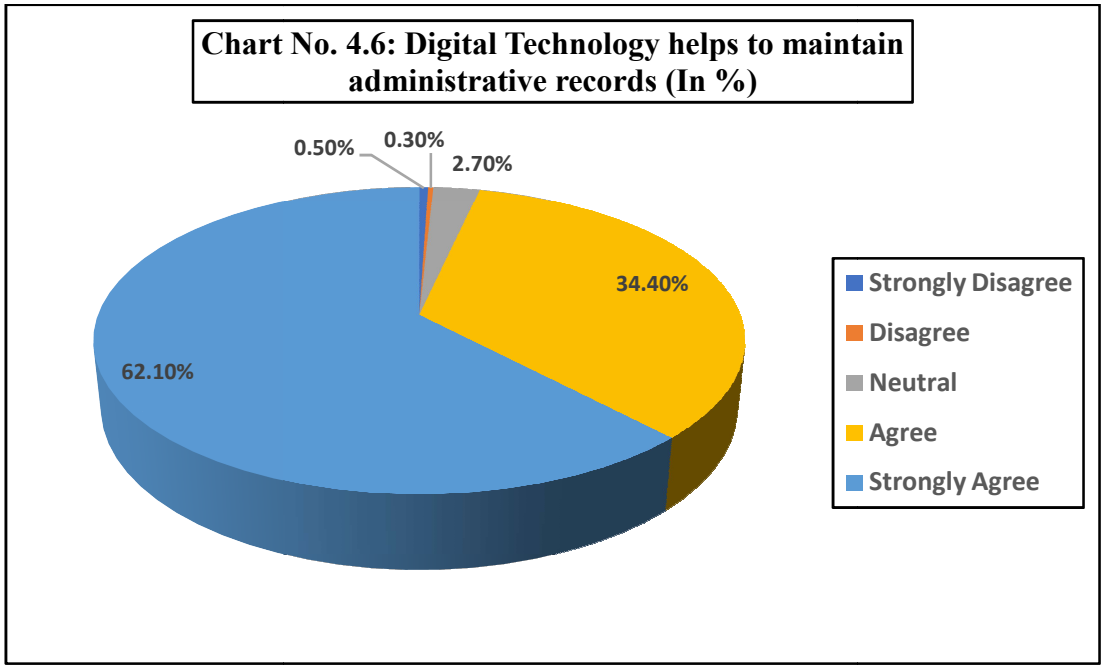
Thus, it is observed that digital technology helps to maintain administrative records, because 96.5 % respondents strongly agree and agreed on the positive role of digital technology to maintain administrative records.

Table No. 4.8

Digital Technology helps to maintain administrative records (Accounts related, Government related, Management related) (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.6	0.616	13.46 %
2	Disagree	1	0.3			
3	Neutral	10	2.7			
4	Agree	129	34.4			
5	Strongly Agree	233	62.1			
	Total	**375**	**100.0**			

Source:*Field Survey*



4.9 Digital Technology helps to maintain academic records (Attendance, Academic Presentation and Student's feedback)

Table no. 4.9 shows respondents' perception about role of digital technology to maintain academic records.

Out of the total respondents, 64.5 % (maximum) respondents strongly agree, followed by 33.3 % respondents who agree and only 0.5 % respondents disagree on positive role of digital technology to maintain administrative records. According to the descriptive statistics, the mean is 4.6, the standard deviation is 0.548, and the variance coefficient is 11.87 %. There is less variation in the response of the sample data acquired since the COV is less than one third (33%) of the total.

Thus, it is observed that digital technology helps to maintain administrative records, because 97.8 % respondents strongly agree and agree on the positive role of digital technology to maintain administrative records.

Table No. 4.9

Digital Technology helps to maintain academic records (Attendance, Academic Presentation and Student's feedback) (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	2	0.5	4.6	0.548	11.87 %
2	Neutral	6	1.6			
3	Agree	125	33.3			
4	Strongly Agree	242	64.5			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*

4.10 Digital Technology helps to monitor the staff records (Attendance, Leave records, Appraisal)

Table no. 4.10 and Chart no. 4.7 shows respondents' perception about the role of digital technology to maintain academic records.

Out of the total respondents, 55.2 % (maximum) respondents strongly agree, followed by 38.4 % respondents who agree and only 0.3 % respondents strongly disagree on the positive role of digital technology to monitor the staff records. The descriptive statistics reveals that the Mean is 4.6, the average deviation is 0.661 and variance of

the coefficient is 14.78 %. Since the COV is less than one third (33%) there is less disparity in the responses of sample data collected.

Thus, it is observed that digital technology significantly helps to monitor the staff records, because the Mean of responses is 4.5 and 93.6 % respondents strongly agreed and agreed on the positive role of digital technology to maintain the staff records.

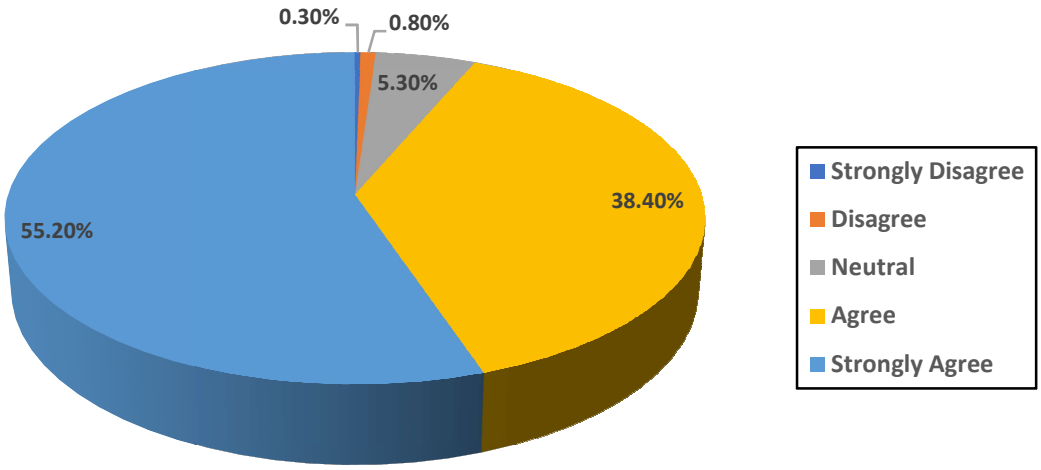
Table No. 4.10

Digital Technology helps to monitor the staff records (Attendance, Leave records, Appraisal) (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.5	0.661	14.78 %
2	Disagree	3	0.8			
3	Neutral	20	5.3			
4	Agree	144	38.4			
5	Strongly Agree	207	55.2			
	Total	**375**	**100.0**			

Source:*Field Survey*

Chart No. 4.7: Digital Technology helps to monitor the staff records (Attendance, Leave records, Appraisal) (In %)



4.11 Digital Technology helps to monitor students records (Fees, Scholarships, Notices)

Table no. 4.11 shows respondents' perception about the role of digital technology helps to monitor the students' records.

Out of the total respondents, 65.9 % (maximum) respondents strongly agree, followed by 29.6 % respondents who agree and only 0.3 % respondents who strongly disagree on the positive role of digital technology to monitor the students' records. The descriptive statistics reveals that the Mean is 4.6, Standard Deviation is 0.616 and Coefficient of variance is 13.38 %. Since the respective COV is comparatively low than one third (33%), there is less disparity in the responses of sample data collected. Thus, it is observed that digital technology significantly helps to monitor the students' records, because the Mean of responses is 4.6 and 96.5 % respondents strongly agree and agree on the positive role of digital technology to maintain students' records.

Table No. 4.11

Digital Technology helps to monitor the students records (Fees, Scholarships, Notices) (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.6	0.616	13.38 %
2	Disagree	2	0.5			
3	Neutral	14	3.7			
4	Agree	111	29.6			
5	Strongly Agree	247	65.9			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.12 Digital Technology helps to deal in litigation related work (Employee Disputes, Government Disputes)

Table no. 4.12 and Chart no. 4.8 show respondents' perception about the role of digital technology to deal in Litigation Related works.

Out of all the respondents, 38.1 % agreed, followed by 32.3 percent who strongly agreed, and 0.8 percent who strongly disagreed with the role that digital technology should play in dealing with litigation-related tasks. According to the descriptive statistics, the mean value is 3.96, the standard deviation is 22.956 and the variance coefficient is 22.96 percent. There is less variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

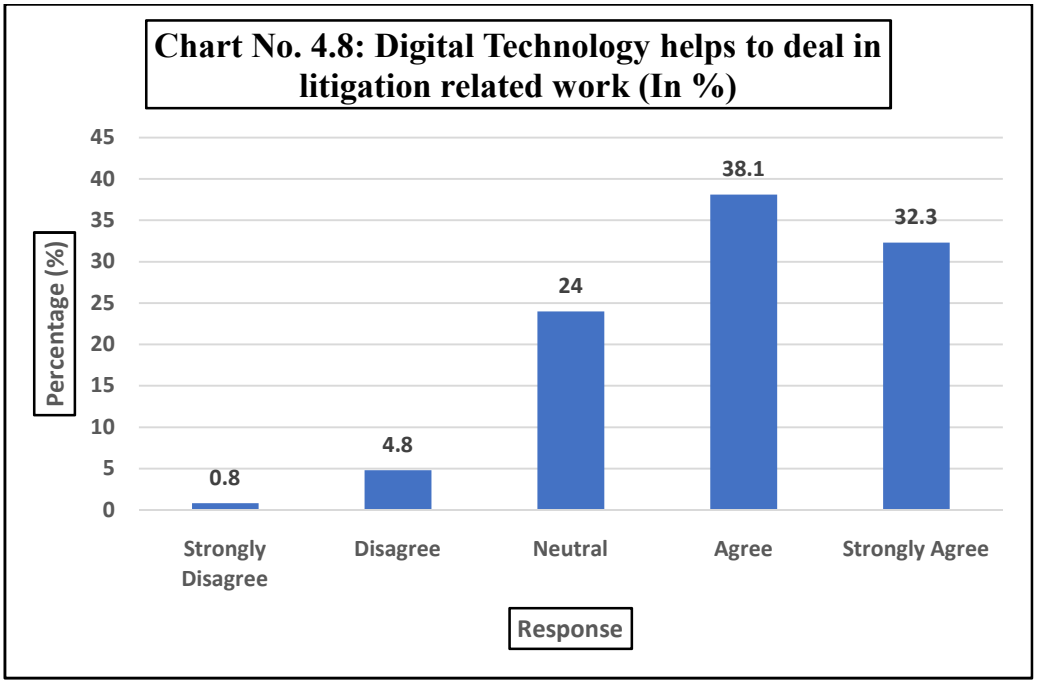
Thus, it is observed that digital technology significantly helps to deal in Litigation related works, because the Mean of responses is 3.96 and 70.3 % respondents were strongly agree and agree on positive role of digital technology to deal in Litigation related works.

Table No. 4.12

Digital Technology helps to deal in litigation related work (Employee Disputes, Government Disputes) (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	3	0.8	3.96	22.956	22.96 %
2	Disagree	18	4.8			
3	Neutral	90	24.0			
4	Agree	143	38.1			
5	Strongly Agree	121	32.3			
	Total	**375**	**100.0**			

Source:*Field Survey*



4.13 Digital Technology Helps in Government related work (Appointment, Approvals, Promotions, CAS)

Table no. 4.13 and Chart no. 4.9 show respondents' perception about role of digital technology which helps in Government Related works.

Out of the total respondents, 42.9 % (maximum) respondents strongly agree, followed by 39.5 % respondents who agree and only 1.6 % respondents strongly disagree that digital technology helps in Government Related works. The descriptive statistics reveals that the Mean is 4.2, Standard Deviation is 0.871 and Coefficient of variance is 20.75 %. Since the COV is less than one third (33%) there is less disparity in the responses of sample data collected.

Thus, it is observed that digital technology significantly helps in Government related works, because the Mean of responses is 4.2 and 82.4 % respondents strongly agreeing and agree that digital technology helps in Government Related works.

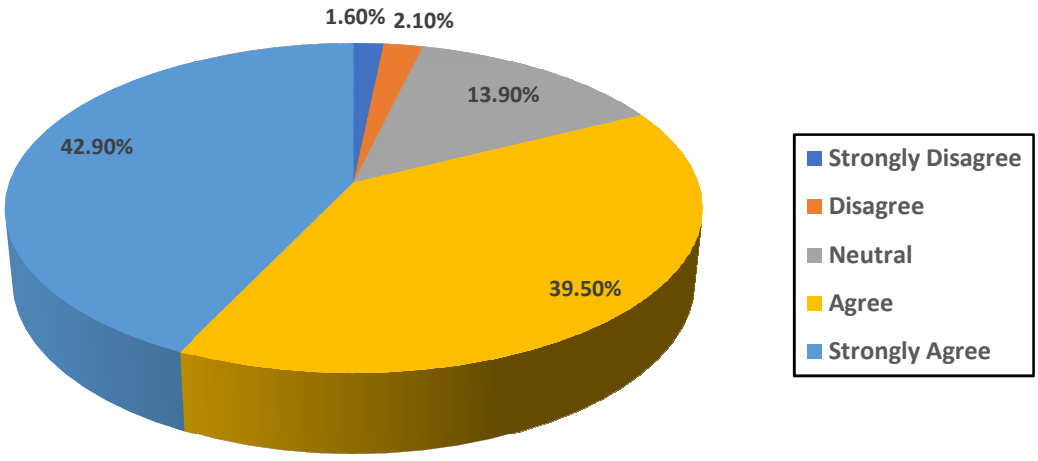
Table No. 4.13

Digital Technology helps in Government related work (Appointment, Approvals, Promotions, CAS) (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	6	1.6	4.2	.871	20.75 %
2	Disagree	8	2.1			
3	Neutral	52	13.9			
4	Agree	148	39.5			
5	Strongly Agree	161	42.9			
	Total	**375**	**100.0**			

Source:*Field Survey*

Chart No. 4.9: Digital Technology helps in Government related work (In %)



4.14 The usage of Digital Platform is the requirement of College Administration

Table no. 4.14 shows respondents' perception that digital technology is the requirement of college administration.

Only 0.3 percent of respondents strongly disagreed with the statement that digital technology is necessary for college administration, leaving the total number of respondents with a strong agreement of 93.6%. According to the descriptive statistics, the mean is 4.5, the standard deviation is 0.668, and the variance coefficient is 14.71%. There is less variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

Thus, it is observed that digital technology is the major requirement of college administration, because the Mean of responses is 4.5 and 93.6% respondents strongly agree and agree that digital technology is the requirement of college administration.

Table No. 4.14

Use of Digital Platform is the requirement of College Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.5	0.668	14.71 %
2	Disagree	4	1.1			
3	Neutral	19	5.1			
4	Agree	117	31.2			
5	Strongly Agree	234	62.4			
	Total	375	100.0			

Source:*Field Survey*

4.15 Digital Technology provides better communication platform for College Administration

Table no. 4.15 and Chart no. 4.10 shows respondents' perception about digital technology which provides better communication platform for college administration.

A better communication platform for college administration is provided by digital technology, according to 50.4 percent (maximum) of respondents, followed by 40.8 percent of respondents, and 0.3 percent of respondents who strongly disagree. According to the descriptive statistics, the Coefficient of Variance is 16.03 percent, the Standard Deviation is 0.705, and the Mean is 4.4. There is less variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

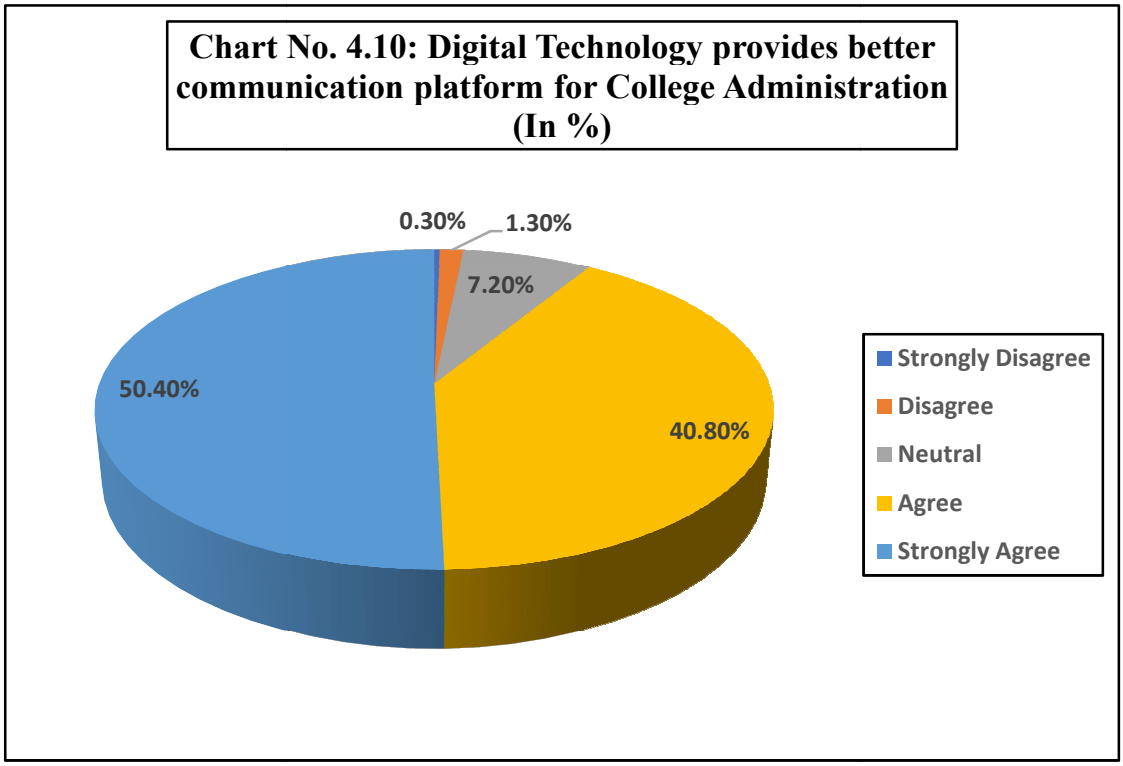
Thus, it reveals that digital technology significantly provides better communication platform for college administration, because the mean of responses is 4.4 and 91.2% respondents strongly agree and agree that digital technology provides better communication platform for college administration.

Table No. 4.15

Digital Technology provides better communication platform for College Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.4	0.705	16.03 %
2	Disagree	5	1.3			
3	Neutral	27	7.2			
4	Agree	153	40.8			
5	Strongly Agree	189	50.4			
	Total	**375**	**100.0**			

Source:*Field Survey*



4.16 Digital Technology improves the communication between students and College Administration

Table no. 4.16 shows respondents' perception about digital technology improves the communication between students and college administration.

Digital technology enhances communication between students and college administration, according to a total of 42.7 percent (maximum) of respondents, followed by 40.8 percent of respondents, and 0.8 percent of respondents who were strongly disagree. According to the descriptive statistics, the Mean value is 4.2, the Standard Deviation is 0.802, and the variance coefficient is 18.96%. There is less variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

Thus, it concludes that digital technology significantly improves the communication between students and college administration, because the mean of responses is 4.2 and 83.5% respondents strongly agree and agree that digital technology improves the communication between students and college administration.

Table No. 4.16

Digital Technology improves the communication between students and College Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	3	0.8	4.2	0.802	18.96 %
2	Disagree	5	1.3			
3	Neutral	54	14.4			
4	Agree	153	40.8			
5	Strongly Agree	160	42.7			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.17 Digital Technology is useful for admissions, examination and other administrative work

Table no.4.17 and Chart no. 4.11shows respondents' perception about use of digital technology for admissions, examinations and other administrative works.

A total of 54.7 percent (maximum) of respondents strongly agreed that digital technology is helpful for admissions, exams, and other administrative tasks, followed by 36.8 percent of respondents who agreed, and just 0.3 percent of respondents strongly disagreed. According to the descriptive statistics, the mean value is 4.4, the Standard Deviation is 0.706, and the coefficient of variance is 15.90%. There is less variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

Thus, it is observed that digital technology is significantly useful for admissions, examinations and other administrative works, because the mean of responses is 4.4 and 91.00% respondents strongly agree and agree that digital technology is useful for admissions, examinations and other administrative works.

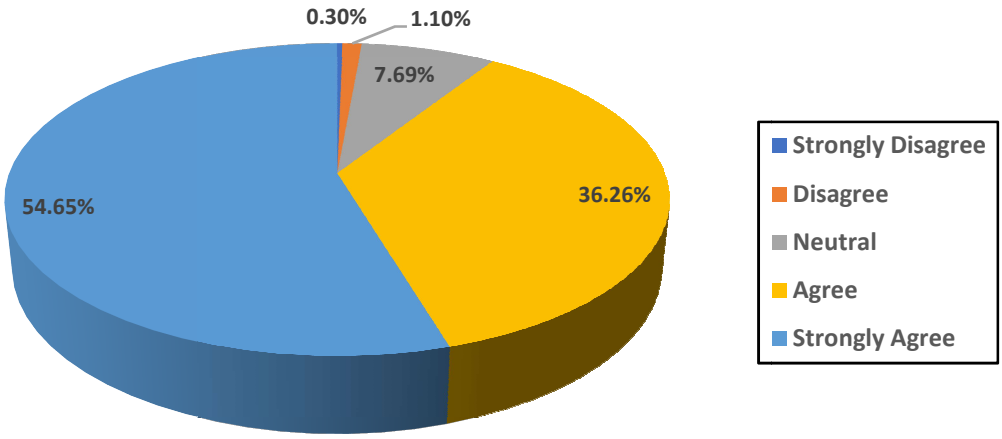
Table No. 4.17

Digital Technology is useful for admissions, examination and other administrative work (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.4	0.706	15.90 %
2	Disagree	4	1.1			
3	Neutral	29	7.7			
4	Agree	136	36.3			
5	Strongly Agree	205	54.7			
	Total	**375**	**100.0**			

Source:*Field Survey*

Chart No. 4.11: Digital Technology is useful for admissions, examination and other administrative work (In %)



4.18 Students understand well and also acknowledge communication through Digital Technology

Table no. 4.18 and Chart no.4.12 show respondents' perception about students' understanding and acknowledging communication through digital technology.

Only 1.3 percent of respondents strongly disagreed with the statement that kids understand and appreciate communication using digital technology, compared to a maximum of 39.5 percent who agreed and 29.6 percent who strongly agreed. According to the descriptive statistics, the Mean value is 3.9, the deviation is 0.938, and the variance coefficient is 24.05 percent. There is less variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

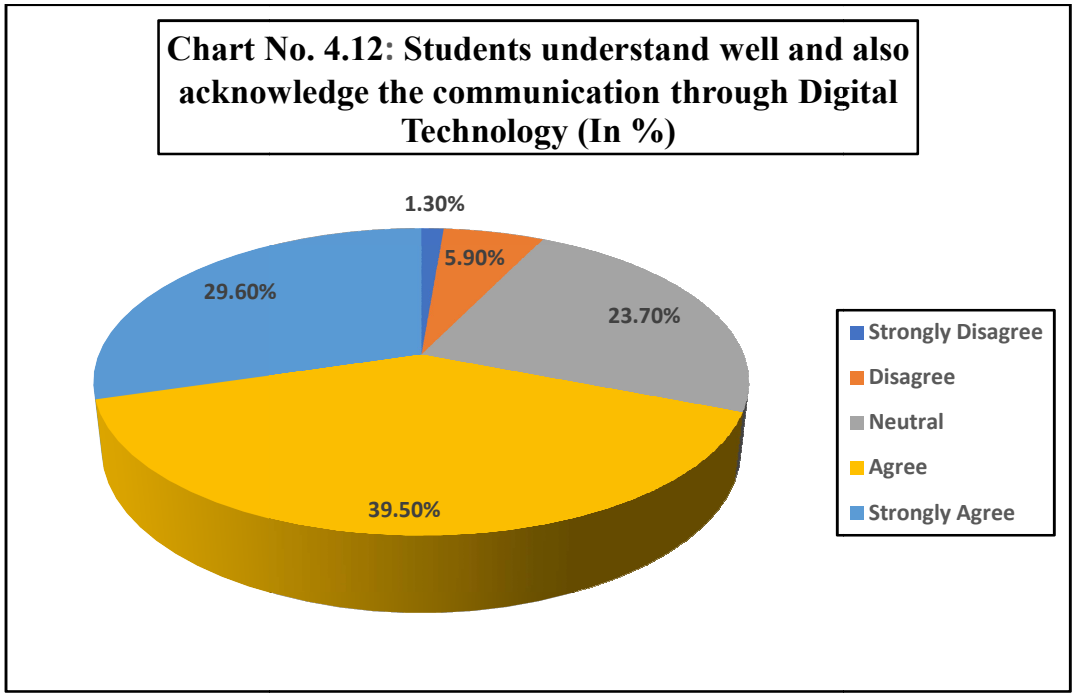
Thus, it is found that students understand well and acknowledge communication through digital technology, because the mean of responses is 3.9 and 69.1% respondents strongly agree and agree that students understand well and acknowledge communication through digital technology.

Table No. 4.18

Students understand well and also acknowledge the communication through Digital Technology (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	5	1.3	3.9	0.938	24.05 %
2	Disagree	22	5.9			
3	Neutral	89	23.7			
4	Agree	148	39.5			
5	Strongly Agree	111	29.6			
	Total	**375**	**100.0**			

Source:*Field Survey*



4.19 Digital Administration is beneficial to various stakeholders

Table no. 4.19 shows respondents' perception about digital administration which is beneficial to the various stakeholders.

Only 0.8 percent of respondents strongly disagreed with the statement that digital administration benefits all the stakeholders, compared to a maximum of 46.1 percent who agreed and 38.1 percent who strongly agreed. According to the descriptive statistics, the Mean is 4.2, the average deviation is 0.785, and the variance coefficient is 18.71 percent. There is less variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

Thus, it is observed that digital administration is significantly beneficial to various stakeholders, because the Mean of responses is 4.2 and 84.2% respondents strongly agree and agree that digital administration is beneficial to the various stakeholders.

Table No. 4.19

Digital Administration is beneficial to various stakeholders (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	3	0.8	4.2	0.785	18.71 %
2	Disagree	6	1.6			
3	Neutral	50	13.3			
4	Agree	173	46.1			
5	Strongly Agree	143	38.1			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.20 Overall monitoring of college functions has become easy due to Digital Technology

Table no. 4.20 and Chart no. 4.13 show respondents' perception about the impact of digital technology on the overall monitoring of college functions.

Out of all respondents, 48.00 percent (maximum) agreed, followed by 38.7 percent who strongly agreed, and just 0.5 percent who strongly disagreed that using digital technology has made it simpler to supervise college activities overall. According to the descriptive statistics, the Mean value is 4.2, the standard deviation is 0.761, and the variance coefficient is 18.03 percent. There is less variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

Thus, it is observed that an overall monitoring of college functions has become easy due to digital technology, because the Mean of responses is 4.2 and 86.7% respondents who strongly agree and agree that over-all monitoring of college functions has become easy due to digital technology.

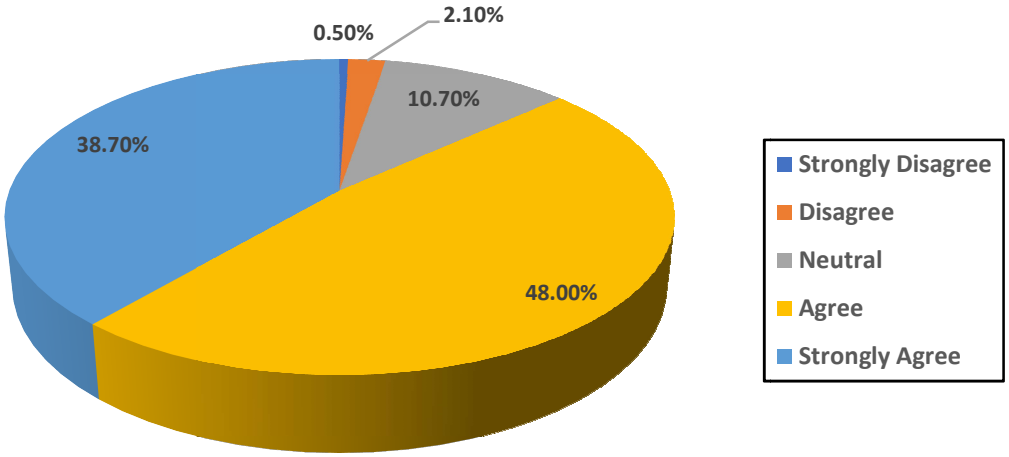
Table No. 4.20

Overall monitoring of college functions has become easy due to Digital Technology (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.2	0.761	18.03 %
2	Disagree	8	2.1			
3	Neutral	40	10.7			
4	Agree	180	48.0			
5	Strongly Agree	145	38.7			
	Total	**375**	**100.0**			

Source:*Field Survey*

Chart No. 4.13: Overall monitoring of college functions has become easy due to Digital Technology (In %)



4.21 Change of mindset is required to adopt the Digital Technology

Table no. 4.21 shows respondents' perception that the adoption of digital technology necessitates a mentality shift.

A change in mindset is necessary in order to adopt digital technology, according to 45.1 percent (maximum) of respondents, followed by 44.8 percent of strongly agreeing respondents, and 0.5 percent of strongly disagreeing respondents. According to the descriptive statistics, the Mean is 4.3, the standard deviation is 0.728, and the variance coefficient is 16.83 percent. There is less variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

As a result, since the Mean of the replies is 4.3 and 89.9% of respondents strongly agree or agree that a mentality change is necessary to adopt digital technology, it can be concluded that this is the case.

Table No. 4.21

Change of mindset is require to adopt the Digital Technology (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.3	0.728	16.83 %
2	Disagree	5	1.3			
3	Neutral	31	8.3			
4	Agree	169	45.1			
5	Strongly Agree	168	44.8			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.22 Regular training program is required to update Digital Knowledge

Table no. 4.22 and Chart no. 4.14 show respondents' perception about regular training program which is required to update digital knowledge.

Out of the total respondents, 62.9 % (maximum) respondents were strongly agreed, followed by 33.3 % respondents, who agree and only 0.8 % respondents strongly disagree that regular training program is required to update the digital knowledge. The descriptive statistics reveals that the Mean is 4.6, average Deviation is 0.592 and variance in the coefficient is 12.92 %. Since the COV is less than one third (33%) there is less disparity in the responses of sample data collected.

Thus, it concludes that regular training program is required to update digital knowledge, because the Mean of responses is 4.6 and 96.2% respondents strongly agree and agree that regular training program is required to update digital knowledge.

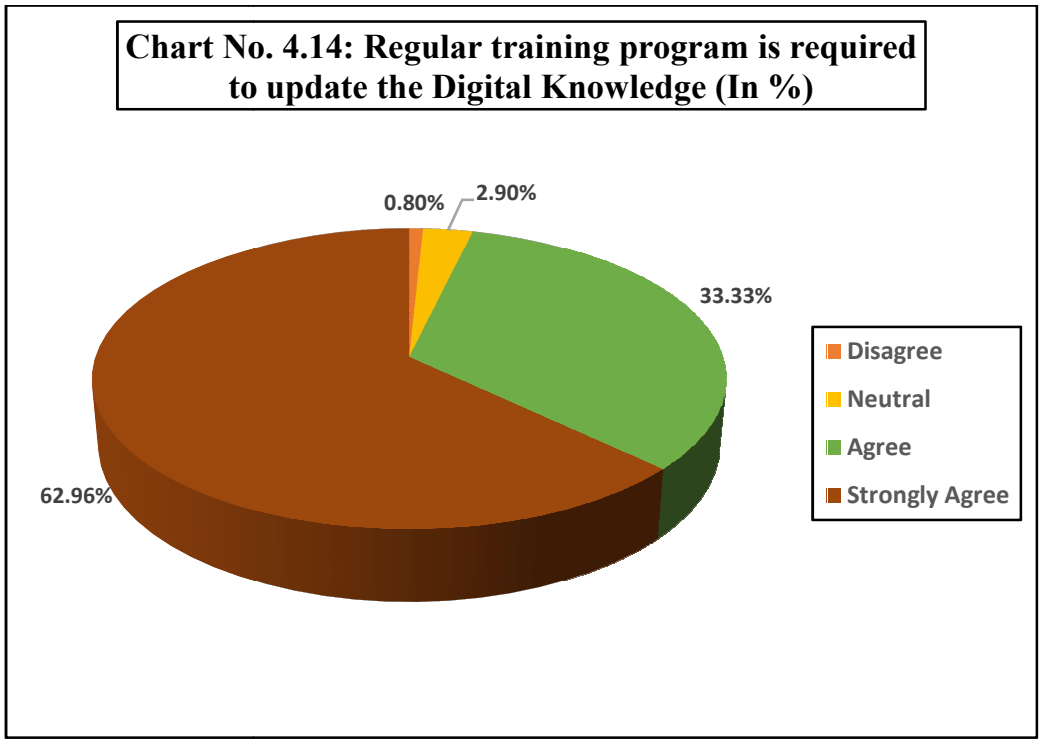
Table No. 4.22

Regular training program is required to update the Digital Knowledge

(In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	3	0.8	4.6	0.592	12.92 %
2	Neutral	11	2.9			
3	Agree	125	33.3			
4	Strongly Agree	236	62.9			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*



4.23 Upgradation of the administrative software is a must

Table no. 4.23 shows respondents' perception that upgradation of the administrative software is a must.

Out of the total respondents, 66.7 % (maximum) respondents strongly agree, followed by 31.7 % respondents, who agree and only 0.3 % respondents strongly disagree that upgradation of the administrative software is a must. The descriptive statistics reveals that the Mean is 4.6, deviation is 0.521 and Coefficient of variance is 11.21 %. Since the COV is smaller than one third (33%) there is less disparity in the responses of sample data collected.

Thus, it is observed that upgradation of the administrative software is a must, because the Mean of responses is 4.6 and 98.4% respondents were strongly agree and agree that upgradation of the administrative software is a must.

Table No. 4.23

Upgradation of the administrative software is a must (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	1	0.3	4.6	0.521	11.21 %
2	Neutral	5	1.3			
3	Agree	119	31.7			
4	Strongly Agree	250	66.7			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*

4.24 Technical support from the college creates awareness of Digital Administration

Table no. 4.24 and Chart no. 4.15 show respondents' perception that technical support from college creates awareness of digital administration.

A total of 57.3 percent of respondents (maximum) highly agreed, followed by 38.1 percent of respondents who agree and only 0.3 percent of strongly disagree respondents, that technical support from college raises the understanding of digital administration. According to descriptive statistics, the Mean is 4.5, the standard deviation is 0.593, and the variance coefficient is 13.10 percent. There is less

variation in the replies of the sample data collected since the COV is less than one third (33%) of the total.

Thus, it is observed that technical support from college creates an awareness of digital administration, because the Mean of responses is 4.5 and 95.4 % respondents strongly agreeing and agree that technical support from the college creates awareness of digital administration.

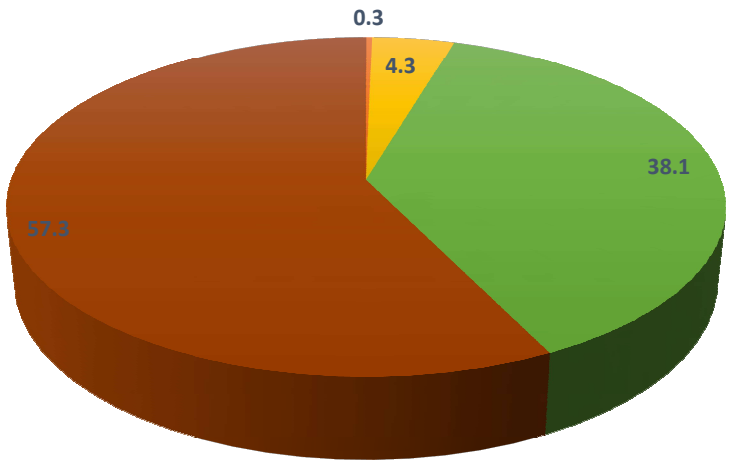
Table No. 4.24

Technical support from the college creates awareness of Digital Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	1	0.3	4.5	0.593	13.10 %
2	Neutral	16	4.3			
3	Agree	143	38.1			
4	Strongly Agree	215	57.3			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*

Chart No. 4.15: Technical support from the college creates awareness of Digital Administration (In %)



4.25 Strong internet band is the base of Digital Administration

Table no. 4.25 shows respondents' perception about strong internet band as the base of digital administration.

Out of total respondents, 69.9 % (maximum) respondents were strongly agree, followed by 27.2 % respondents, who agree and only 0.5 % respondents were strongly disagree that strong internet band is the base of digital administration. The descriptive statistics reveals that the Mean is 4.7, Standard Deviation is 0.551 and Coefficient of variance is 11.82 %. Since the COV is very less and it is less than one third (33%) there is less disparity in the responses of sample data collected.

Thus, it is observed that strong internet band is the base of digital administration, because the Mean of responses is 4.7 and 97.1% respondents strongly agree and agree that strong internet band is the base of digital administration.

Table No. 4.25

Strong internet band is the base of Digital Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	**COV**
1	Disagree	2	0.5	4.7	0.551	11.82 %
2	Neutral	9	2.4			
3	Agree	102	27.2			
4	Strongly Agree	262	69.9			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*

4.26 Free information on Digital Media creates awareness of Digital Administration among administrative staff

Table no. 4.26 and Chart no. 4.16 shows respondents' perception about free information on digital media which creates an awareness of digital administration among administrative staff.

Out of all respondents, 45.9 percent (maximum) agreed, followed by 42.9 percent who strongly agreed, and just 0.5 percent who strongly disagreed that free knowledge

on digital media increases administrative staff awareness of digital administration. According to the descriptive statistics, the Mean value is 4.3, the standard deviation is 0.728, and the coefficient of variance is 16.94%. Since the COV is so low—less than one third (33%), there is less variation in the answers to the sample data that was obtained.

Thus, it is observed that free information on digital media creates awareness of digital administration among administrative staff, because the Mean of responses is 4.3 and 88.8% respondents strongly agree and agree that free information on digital media creates awareness of digital administration among the administrative staff.

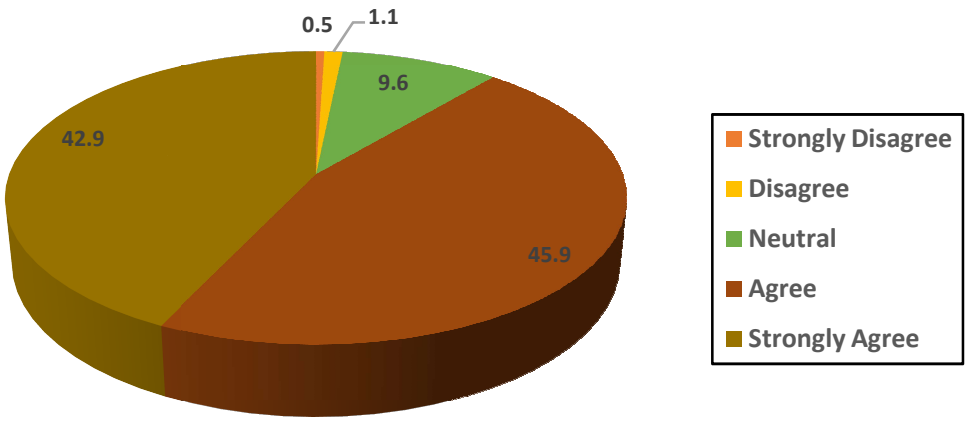
Table No. 4.26

Free information on Digital Media creates awareness of Digital Administration among administrative staff (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.3	0.728	16.94 %
2	Disagree	4	1.1			
3	Neutral	36	9.6			
4	Agree	172	45.9			
5	Strongly Agree	161	42.9			
	Total	**375**	**100.0**			

Source:*Field Survey*

Chart No. 4.16: Free information on Digital Media creates awareness of Digital Administration among administrative staff (In %)



4.27 Awareness of Digital Technology is necessary

Table no. 4.27 and Chart no. 4.17 show respondents' perception that an awareness of digital technology is necessary.

Out of the total respondents, 62.7% (maximum) respondents were strongly agreed, followed by 33.6% respondents, who agreed and only 0.5 % respondents strongly disagreed that awareness of digital technology is necessary. The descriptive statistics reveals that the Mean is 4.6, Standard Deviation is 0.583 and Coefficient of variance is 12.72%. Since the COV is very less and it is less than one third (33%) there is less disparity in the responses of the sample data collected.

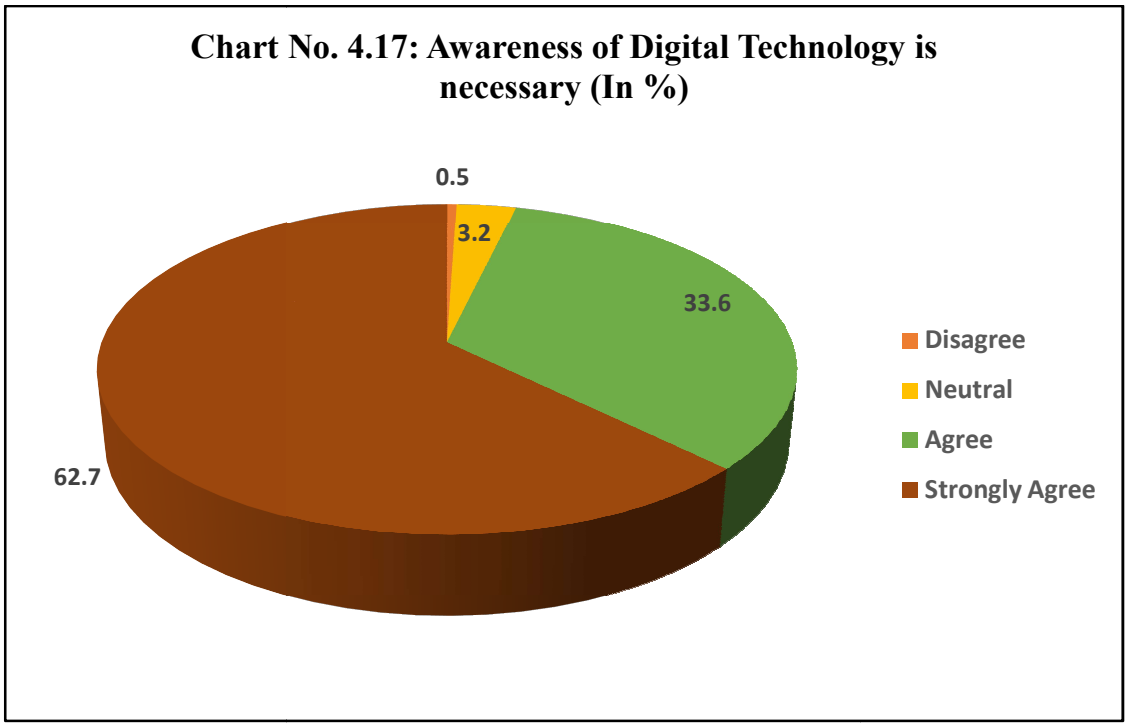
As a result, it can be seen that understanding digital technology is important because the Mean response rate was 4.6, and 96.3 percent of respondents agreed or strongly agreed that understanding digital technology is important.

Table No. 4.27

Awareness of Digital Technology is necessary (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	2	0.5	4.6	0.583	12.72 %
2	Neutral	12	3.2			
3	Agree	126	33.6			
4	Strongly Agree	235	62.7			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*



4.28 Motivation by the top management is required to create awareness of acceptance of Digital Administration

Table no. 4.28 and Chart no. 4.18 show respondents' perception that motivation by the top management is required to create an awareness of acceptance of digital administration.

Out of the total respondents, 51.5% (maximum) respondents strongly agreed, followed by 42.4 % respondents, who agreed and only 0.3 % respondents strongly disagreed that motivation by the top management is required to create an awareness of acceptance of digital administration. The descriptive statistics reveals that the Mean is 4.5, Standard Deviation is 0.618 and Coefficient of variance is 13.89%. Since the COV is very less and it is less than one third (33%) there is less disparity in the responses of the sample data collected.

Thus, it is observed that motivation by the top management is required to create an awareness of acceptance of digital administration, because the Mean of responses is 4.5 and 93.9% respondents strongly agreed and agreed that motivation by the top management is required to create an awareness of acceptance of digital administration.

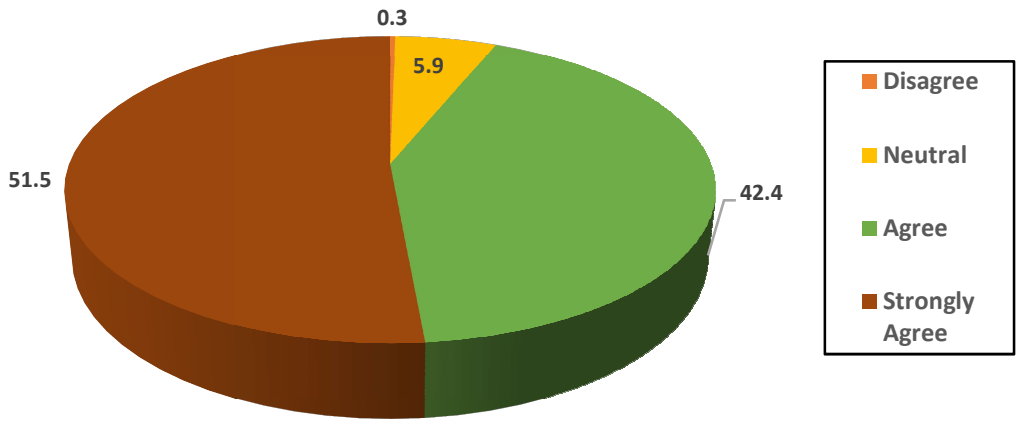
Table No. 4.28

Motivation by the top management is required to create awareness of acceptance of Digital Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	1	0.3	4.5	0.618	13.89 %
2	Neutral	22	5.9			
3	Agree	159	42.4			
4	Strongly Agree	193	51.5			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*

Chart No. 4.18: Motivation by the top management is required to create awareness of acceptance of Digital Administration (In %)



4.29 Digital Administration alerts about the data updation and modification in the system

Table no. 4.29 shows respondents' perception that digital administration alerts about the data updation and modification in the system.

Out of the total respondents, 46.9% (maximum) respondents agreed, followed by 46.4% respondents, who strongly agreed and only 0.3 % respondents strongly disagreed, that digital administration alerts about data updation and modification in the system. The descriptive statistics reveals that the Mean is 4.4, Standard Deviation is 0.640 and Coefficient of variance is 14.58%. Since the COV is very less and it is less than one third (33%), there is less disparity in the responses of the sample data collected.

Thus, it is found that digital administration alerts about data updation and modification in the system, because the Mean of responses is 4.4 and 93.3 % respondents strongly agreed and agreed that digital administration alerts about data updation and modification in the system.

Table No. 4.29

Digital Administration alerts about the data updation and modification in the system (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.4	0.640	14.58 %
2	Disagree	1	0.3			
3	Neutral	23	6.1			
4	Agree	176	46.9			
5	Strongly Agree	174	46.4			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.30 Administration creates awareness that Digital Technology helps to link up the data and update the record

Table no. 4.30 and Chart no. 4.19 show respondents' perception about administration which creates an awareness that digital technology helps to link up the data and update the records.

Out of the total respondents, 47.5% (maximum) respondents agreed, followed by 46.7% respondents, who strongly agreed and only 0.3 % respondents strongly disagreed that administration creates an awareness that digital technology helps to link up the data and update the records. The descriptive statistics reveals that the Mean is 4.4, Standard Deviation is 0.608 and Coefficient of variance is 13.81%. Since the COV is very less and it is less than one third (33%), there is less disparity in the responses of the sample data collected.

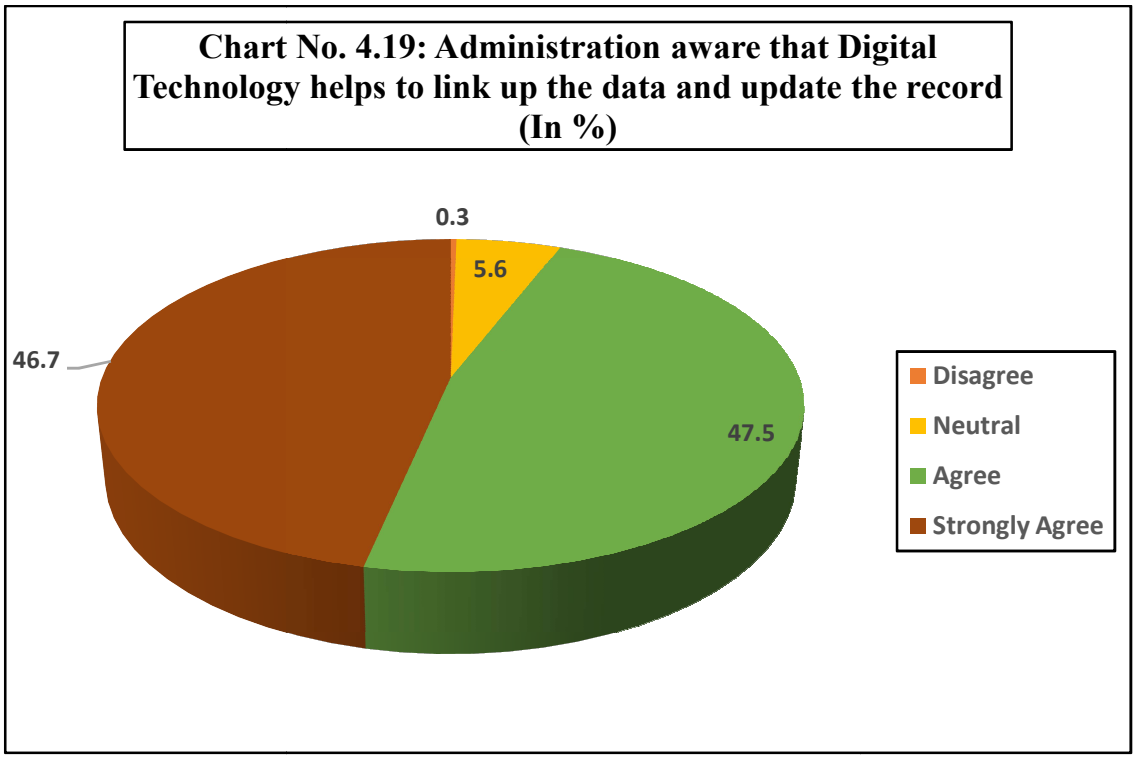
Thus, it concludes that administration creates an awareness that digital technology helps to link up the data and update the records, because the Mean of responses is 4.4 and 94.2% respondents strongly agreed and agree that administration creates an awareness that digital technology helps to link up the data and update the records.

Table No. 4.30

Administration aware that Digital Technology helps to link up the data and update the record (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	1	0.3	4.4	0.608	13.81 %
2	Neutral	21	5.6			
3	Agree	178	47.5			
4	Strongly Agree	175	46.7			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*



4.31 Administrative staff aware that Digital Records reduce the storage space

Table no. 4.31 shows respondents' perception that the administrative staff becomes aware that digital records reduce the storage space.

Out of the total respondents, 48.00% (maximum) respondents strongly agreed, followed by 41.9% respondents, who agreed and only 0.8 % respondents strongly

disagreed that the administrative staff becomes aware that digital records reduce the storage space.. The descriptive statistics reveals that the Mean is 4.4, Standard Deviation is 0.685 and Coefficient of variance is 15.67%. Since the COV is very less and it is less than one third (33%), there is less disparity in the responses of the sample data collected.

Thus, it concludes that the administrative staff becomes aware that digital records reduce the storage space, because the Mean of responses is 4.4 and 89.9% respondents strongly agreed and agreed that the administrative staff becomes aware that digital records reduce the storage space.

Table No. 4.31

Administrative staff aware that Digital Records reduces the storage space (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	3	0.8	4.4	0.685	15.67 %
2	Neutral	35	9.3			
3	Agree	157	41.9			
4	Strongly Agree	180	48.0			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*

4.32 Digital Administration creates awareness among administrative staff that it has no boundaries of time and place

Table no. 4.32 and Chart no. 4.20 show respondents' perception about digital administration which creates an awareness among the administrative staff that it has no boundaries of time and place.

Out of all the respondents, 46.4 percent (the maximum) agreed, followed by 40.3 percent who strongly agreed, and just 0.3 percent who strongly disagreed that digital administration makes the administrative employees aware that it knows no time or location limitations. According to descriptive statistics, the Mean value is 4.3, the standard deviation is 0.713, and the variance coefficient is 16.73 percent. Since the COV is so low—less than one third (33%), there is less variation in the answers to the sample data that was obtained.

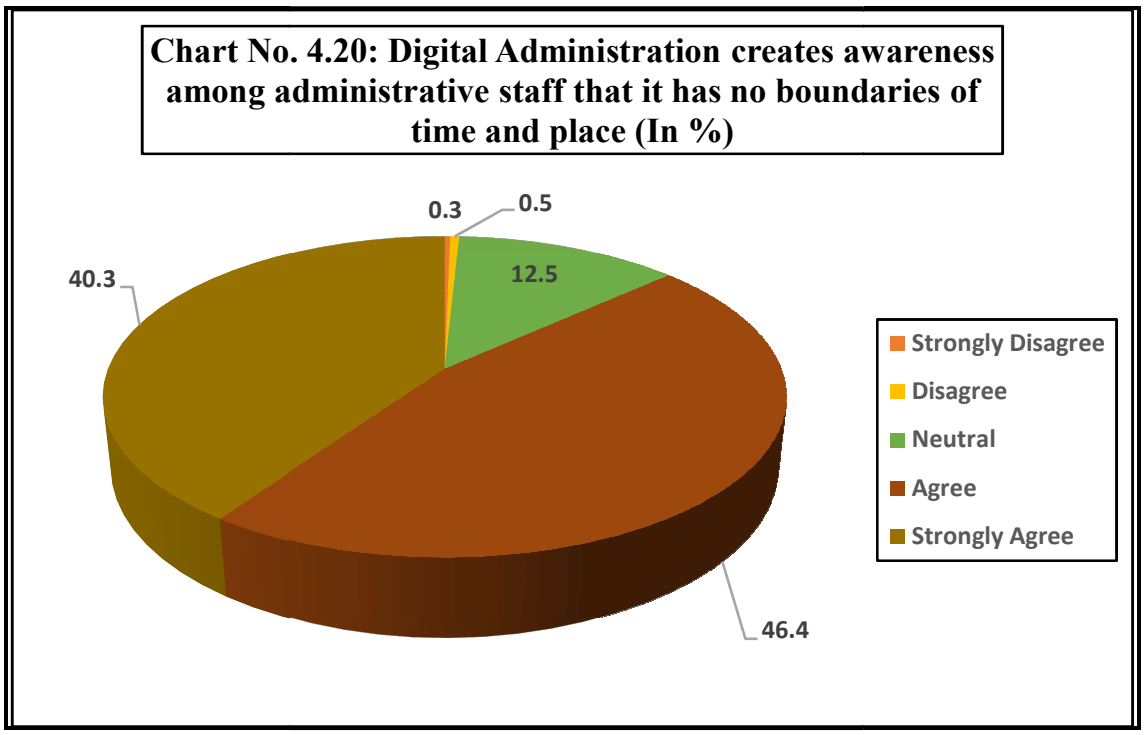
Thus, it concludes that digital administration creates an awareness among the administrative staff that it has no boundaries of time and place, because the Mean of responses is 4.3 and 86.7% respondents strongly agreed and agreed that administrative staff becomes aware that digital records reduce the storage space.

Table No. 4.32

Digital Administration creates awareness among administrative staff that it has no boundaries of time and place (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.3	0.713	16.73 %
2	Disagree	2	0.5			
3	Neutral	47	12.5			
4	Agree	174	46.4			
5	Strongly Agree	151	40.3			
	Total	**375**	**100.0**			

Source:*Field Survey*



4.33 Digital Technology saves time of the administrative work

Table no. 4.33 shows respondents' perception about digital technology that saves time of the administrative work.

Out of total respondents, 54.1% (maximum) respondents strongly agreed, followed by 36.3 % respondents, who agreed and only 0.3 % respondents strongly disagreed that digital technology saves time of the administrative work. The descriptive statistics reveals that the Mean is 4.4, Standard Deviation is 0.727 and Coefficient of variance is 16.43 %. Since the COV is very less and it is less than one third (33%) there is less disparity in the responses of the sample data collected.

Thus, it concludes that digital technology saves time of the administrative work, because the Mean of responses is 4.4 and 90.4% respondents strongly agreed and agreed that digital technology saves time of the administrative work.

Table No. 4.33

Digital Technology saves time of the administrative work (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.4	0.727	16.43 %
2	Disagree	6	1.6			
3	Neutral	29	7.7			
4	Agree	136	36.3			
5	Strongly Agree	203	54.1			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.34 Digital Administration is convenient

Table no. 4.34 and Chart no. 4.21shows respondents' perception that digital administration is convenient or not.

Out of all the respondents, 48.3 percent (maximum) agreed that digital administration is convenient, followed by 40.5 percent of highly agreed respondents, and just 0.3 percent of strongly disagreeing respondents. According to the descriptive statistics, the Mean is 4.3, the standard deviation is 0.707, and the variance coefficient is 16.54 percent. Since the COV is less than one third (33%), there is less variation in the answers to the sample data that was obtained.

Thus, it is observed that digital administration is convenient, because the Mean of responses is 4.3 and 88.8% respondents strongly agreed and agreed that digital administration is convenient.

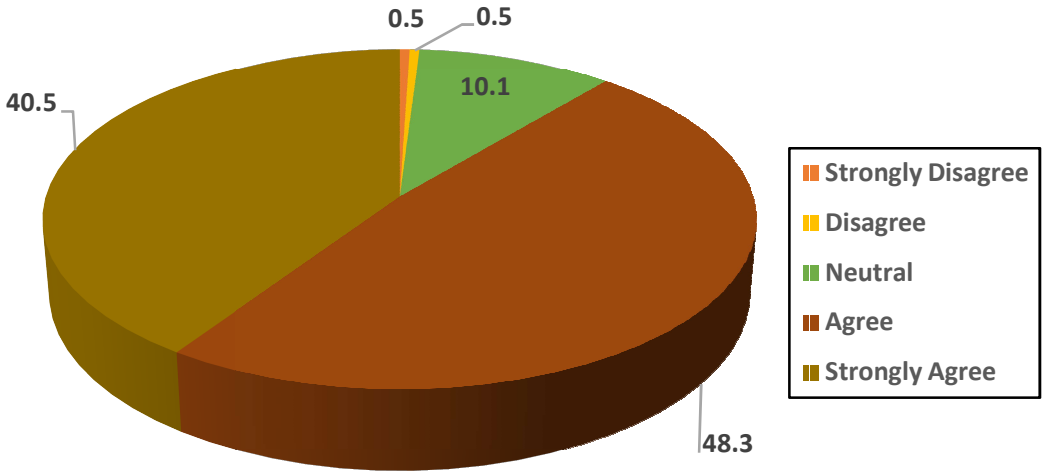
Table No. 4.34

Digital Administration is convenient (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.3	0.707	16.54 %
2	Disagree	2	0.5			
3	Neutral	38	10.1			
4	Agree	181	48.3			
5	Strongly Agree	152	40.5			
	Total	**375**	**100.0**			

Source:*Field Survey*

Chart No. 4.21: Digital Administration is convenient (In %)



4.35 Motivation and Appreciation by the authority improves efficiency of the College Administration

Table no. 4.35 shows respondents' perception about motivation and appreciation by the authority improves efficiency of the college administration or not.

Out of the total respondents, 54.4% (maximum) respondents strongly agreed, followed by 39.2% respondents, who agreed and only 0.8 % respondents strongly disagreed that motivation and appreciation by the authority, improves efficiency of the college administration. The descriptive statistics reveals that the Mean is 4.5, Standard Deviation is 0.641 and Coefficient of variance is 14.32%. Since the COV is very less and it is less than one third (33%), it mean there is less disparity in the responses of the sample data collected.

Thus, it is observed that motivation and appreciation by the authority significantly improves the efficiency of the college administration, because the Mean of responses is 4.5 and 93.6% respondents strongly agreed and agreed that motivation and appreciation by the authority improves efficiency of the college administration.

Table No. 4.35

Motivation and Appreciation by the authority improves efficiency of the College Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	3	0.8	4.5	0.641	14.32 %
2	Neutral	21	5.6			
3	Agree	147	39.2			
4	Strongly Agree	204	54.4			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*

4.36 Digital Technology helps to maintain transparency in the administrative work

Table no. 4.36 and Chart no. 4.22 shows respondents' perception that digital technology helps to maintain transparency in the administrative work or not.

Out of the total respondents, 48.8% (maximum) respondents strongly agreed, followed by 41.9% respondents, who agreed and only 0.5 % respondents strongly disagreed that digital technology helps to maintain transparency in the administrative work. The descriptive statistics reveals that the Mean is 4.4, Standard Deviation is 0.706 and Coefficient of variance is 16.12 %. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

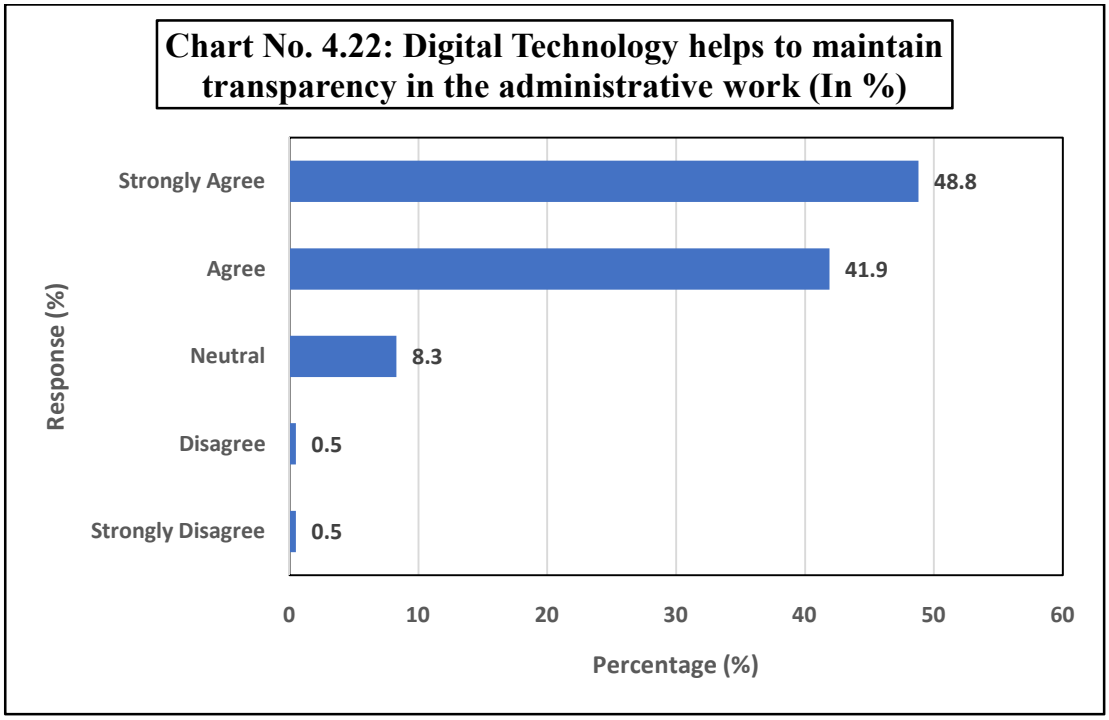
Thus, it concludes that digital technology helps to maintain transparency in the administrative work, because the Mean of responses is 4.4 and 90.7% respondents strongly agreed and agreed that digital technology helps to maintain transparency in the administrative work.

Table No. 4.36

Digital Technology helps to maintain transparency in the administrative work (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.4	0.706	16.12 %
2	Disagree	2	0.5			
3	Neutral	31	8.3			
4	Agree	157	41.9			
5	Strongly Agree	183	48.8			
	Total	**375**	**100.0**			

Source:*Field Survey*



4.37 Digital Technology helps to do seamless work

Table no. 4.37 shows respondents' perception how digital technology helps to do seamless work.

Out of all respondents, 47.7 percent (maximum) agreed, followed by 41.3 percent who strongly agreed and just 0.5 percent strongly disagreed that digital technology aids in seamless work. According to the descriptive statistics, the Mean value is 4.3, the standard deviation is 0.740, and the variance coefficient is 17.31%. Since the COV is so low—less than one third (33%), it indicates that there is less variation in the answers to the sample data that was gathered.

Thus, it concludes that digital technology significantly helps to do seamless work, because the Mean of responses is 4.3 and 89.00 % respondents strongly agreed and agreed that digital technology helps to do seamless work.

Table No. 4.37

Digital Technology helps to do seamless work (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.3	0.740	17.31 %
2	Disagree	7	1.9			
3	Neutral	32	8.5			
4	Agree	179	47.7			
5	Strongly Agree	155	41.3			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.38 Digital Technology improves communication and productivity of the college administrative staff

Table no. 4.38 and Chart no. 4.23 show respondents' perception that digital technology improves communication and productivity of the college administrative staff or not.

Out of the total respondents, 46.1% (maximum) respondents agreed, followed by 41.6% respondents, who strongly agreed and only 0.5 % respondents strongly disagreed that digital technology improves communication and productivity of the

college administrative staff. The descriptive statistics reveals that the Mean is 4.4, Standard Deviation is 0.745and Coefficient of variance is 17.45%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

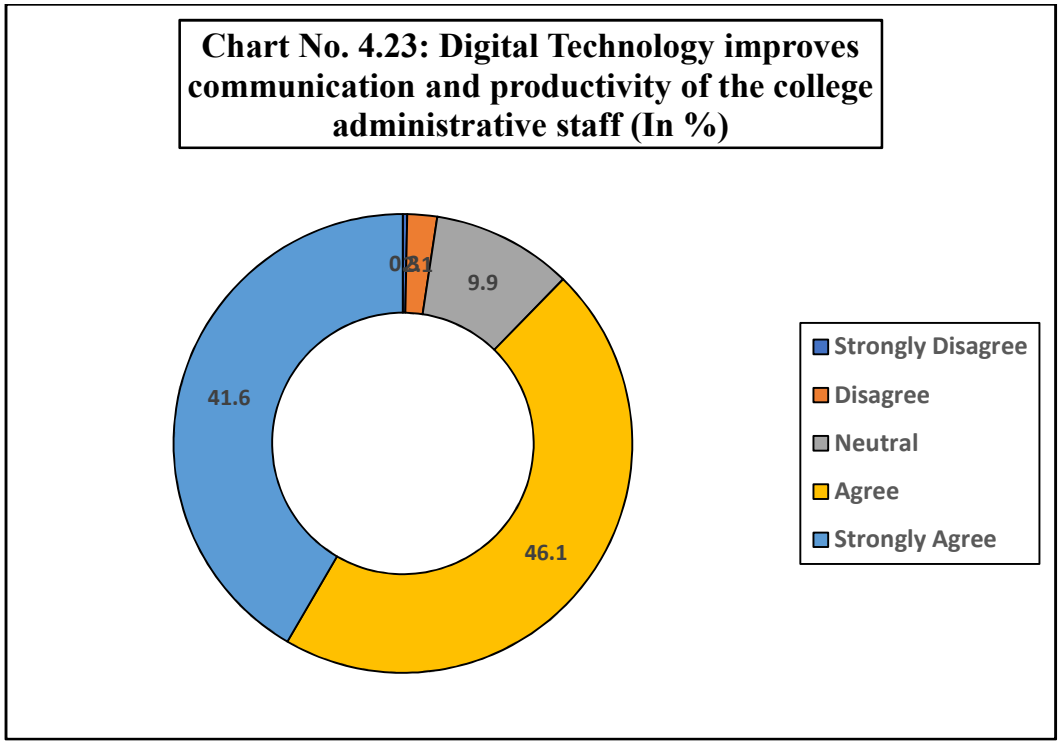
Thus, it is found that digital technology improves communication and productivity of the college administrative staff, because the Mean of responses is 4.3 and 87.6% respondents strongly agreed and agree that digital technology improves communication and productivity of the college administrative staff.

Table No. 4.38

Digital Technology improves communication and productivity of the college administrative staff (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.3	0.745	17.45 %
2	Disagree	8	2.1			
3	Neutral	37	9.9			
4	Agree	173	46.1			
5	Strongly Agree	156	41.6			
	Total	**375**	**100.0**			

Source:*Field Survey*



4.39 Training to the staff and students improves efficiency of college administration

Table no. 4.39 shows respondents' perception about whether training to the staff and students improves efficiency of the college administration.

Out of total respondents, 53.3% (maximum) respondents strongly agreed, followed by 41.1% respondents, who agreed and only 0.3 % respondents strongly disagreed that training to the staff and students improves efficiency of the college administration. The descriptive statistics reveals that the Mean is 4.5, Standard Deviation is 0. 611 and Coefficient of variance is 13.65%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

Thus, it concludes that training to the staff and students significantly improves efficiency of college administration, because the Mean of responses is 4.5 and 94.4% respondents strongly agreed and agree that training to the staff and students improves efficiency of the college administration.

Table No. 4.39

Training to the staff and students improves efficiency of college administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	1	0.3	4.5	0.611	13.65 %
2	Neutral	20	5.3			
3	Agree	154	41.1			
4	Strongly Agree	200	53.3			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.40 Digital Technology improves quality of work

Table no. 4.40 and Chart no. 4.24 show respondents' perception how digital technology improves the quality of work.

Out of the total respondents, 49.1% (maximum) respondents strongly agreed, followed by 43.5% respondents, who agreed and only 0.5 % respondents strongly disagreed that digital technology improves quality of work. The descriptive statistics reveals that the Mean is 4.4, Standard Deviation is 0.704 and Coefficient of variance is 16.03%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

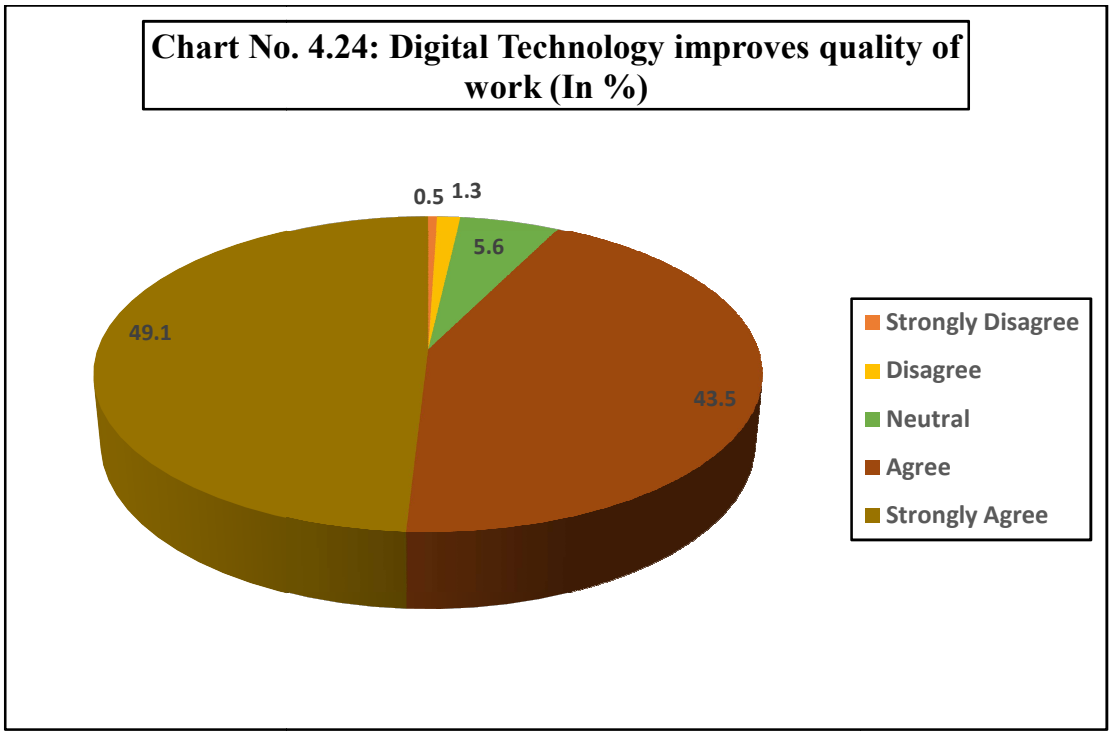
Thus, it concludes that digital technology significantly improves the quality of work, because the Mean of responses is 4.4 and 92.6% respondents strongly agreed and agree that digital technology improves the quality of work.

Table No. 4.40

Digital Technology improves quality of work (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.4	0.704	16.03 %
2	Disagree	5	1.3			
3	Neutral	21	5.6			
4	Agree	163	43.5			
5	Strongly Agree	184	49.1			
	Total	**375**	**100.0**			

Source:*Field Survey*



4.41 Digital Technology maintains accuracy in the administrative work

Table no. 4.41 shows respondents' perception how digital technology maintains accuracy in the administrative work.

Out of the total respondents, 47.7% (maximum) respondents strongly agreed, followed by 40.3% respondents, who agreed and only 0.3 % respondents strongly disagreed that digital technology maintains accuracy in the administrative work. The descriptive statistics reveals that the Mean is 4.3, Standard Deviation is 0. 739 and Coefficient of variance is 17.02%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

Thus, it reveals that digital technology significantly maintains accuracy in the administrative work, because the Mean of responses is 4.3 and 88% respondents strongly agree and agree that digital technology maintains accuracy in the administrative work.

Table No. 4.41

Digital Technology maintains accuracy in the administrative work (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.3	0.739	17.02 %
2	Disagree	5	1.3			
3	Neutral	39	10.4			
4	Agree	151	40.3			
5	Strongly Agree	179	47.7			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.42 Administrative services are improved due to Digital Administration

Table no. 4.42 and Chart no. 4.25 show respondents' perception that administrative services are improved due to digital administration or not.

Out of total respondents, 47.7% (maximum) respondents agreed, followed by 44.00% respondents, who strongly agreed and only 1.1 % respondents strongly disagreed that administrative services are improved due to digital administration. The descriptive

statistics reveals that the Mean is 4.3, Standard Deviation is 0.660and Coefficient of variance is 15.18%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

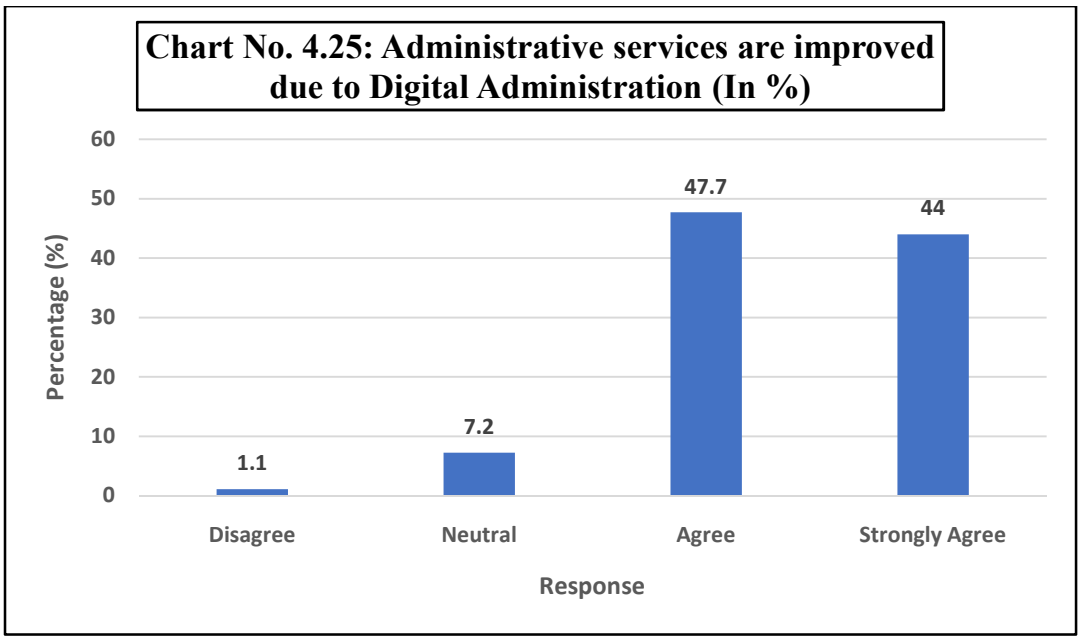
Thus, it concludes that administrative services are improved due to digital administration, because the mean of responses is 4.3 and 91.7 % respondents strongly agreed and agreed that administrative services are improved due to digital administration.

Table No. 4.42

Administrative services are improved due to Digital Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Disagree	4	1.1	4.3	0.660	15.18 %
2	Neutral	27	7.2			
3	Agree	179	47.7			
4	Strongly Agree	165	44.0			
5	**Total**	**375**	**100.0**			

Source:*Field Survey*



4.43 Administrative work can be speed up due to Digital Technology

Table no. 4.43 shows respondents' perception about administrative work can be speeded up due to digital technology or not.

Out of all the respondents, 49.6 percent (maximum) strongly agreed, followed by 45.3 percent of strongly agreed respondents, and just 0.3 percent of strongly disagreed respondents, that administrative work might be sped up by digital technology. According to the descriptive statistics, the mean value is 4.4, the standard deviation is 0.621, and the variance coefficient is 14.00 percent. Since the COV is less than one third (33%)—it indicates that there is less variation in the answers to the sample data that was gathered.

Thus, it concludes that administrative work has significantly speeded up due to digital technology, because the Mean of responses is 4.4 and 94.9% respondents strongly agreed and agreed that administrative work can be speed up due to digital technology.

Table No. 4.43

Administrative work can be speed up due to Digital Technology (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	1	0.3	4.4	0.621	14.00 %
2	Disagree	1	0.3			
3	Neutral	17	4.5			
4	Agree	170	45.3			
5	Strongly Agree	186	49.6			
	Total	**375**	**100.0**			

Source:*Field Survey*

4.44 Generating financial transactions is safe with Digital Technology

Table no. 4.44 and Chart no. 4.26 show respondents' perception whether generating financial transactions is safe with digital technology or not.

Out of the total respondents, 42.7% (maximum) respondents agreed, followed by 37.6% respondents, who strongly agreed and only 0.5 % respondents strongly disagreed that generating financial transactions is safe with digital technology. The descriptive statistics reveals that the Mean is 4.2, Standard Deviation is 0.796and

Coefficient of variance is 19.16%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

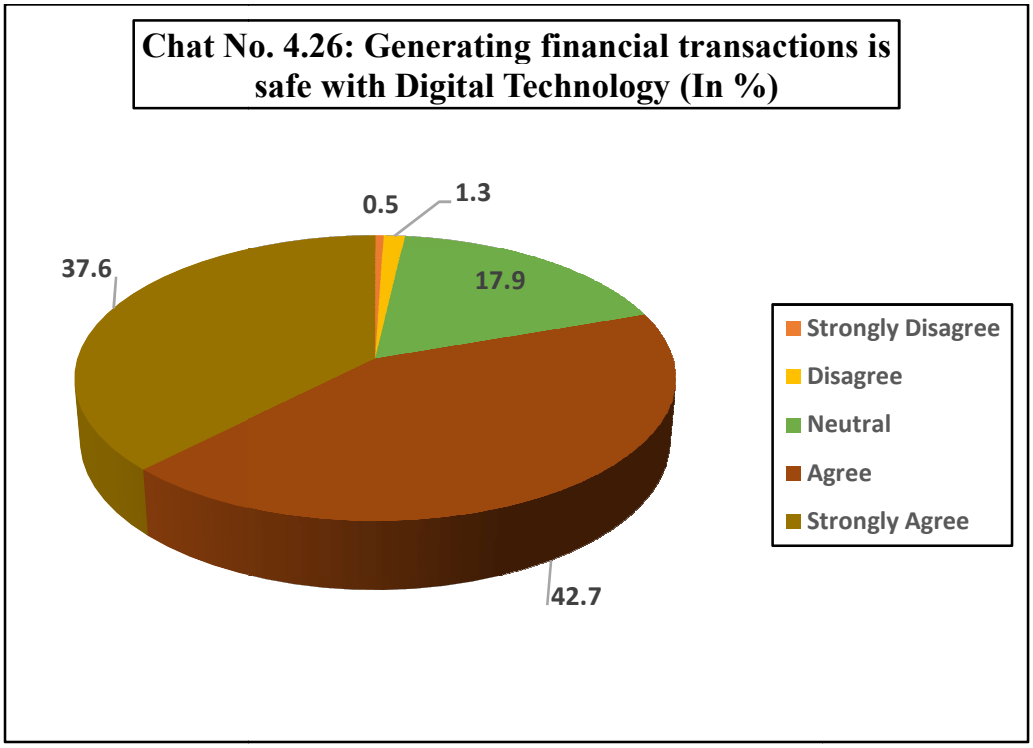
Thus, it concludes that generating financial transactions is much safe with digital technology, because the Mean of responses is 4.4 and 80.3% respondents strongly agreed and agreed that generating financial transactions is safe with digital technology.

Table No. 4.44

Generating financial transactions is safe with Digital Technology (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.2	0.796	19.16 %
2	Disagree	5	1.3			
3	Neutral	67	17.9			
4	Agree	160	42.7			
5	Strongly Agree	141	37.6			
	Total	**375**	**100.0**			

Source:*Field Survey*



4.45 Digital records and transactions are perfect and precise than the manual records and transactions

Table no. 4.45 and Chart no. 4.27 show respondents' perception how digital records and transactions are perfect and precise than the manual records and transactions.

Out of the total respondents, 43.2% (maximum) respondents strongly agreed, followed by 41.3 % respondents, who agreed and only 0.5 % respondents strongly disagreed that digital records and transactions are perfect and precise than the manual records and transactions. The descriptive statistics reveals that the Mean is 4.3, Standard Deviation is 0.785and Coefficient of variance is 18.47%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of sample data collected.

Thus, it concludes that digital records and transactions are perfect and precise than the manual records and transactions, because the Mean of responses is 4.3 and 84.5% respondents were strongly agree and agree that digital records and transactions are perfect and precise than the manual records and transactions.

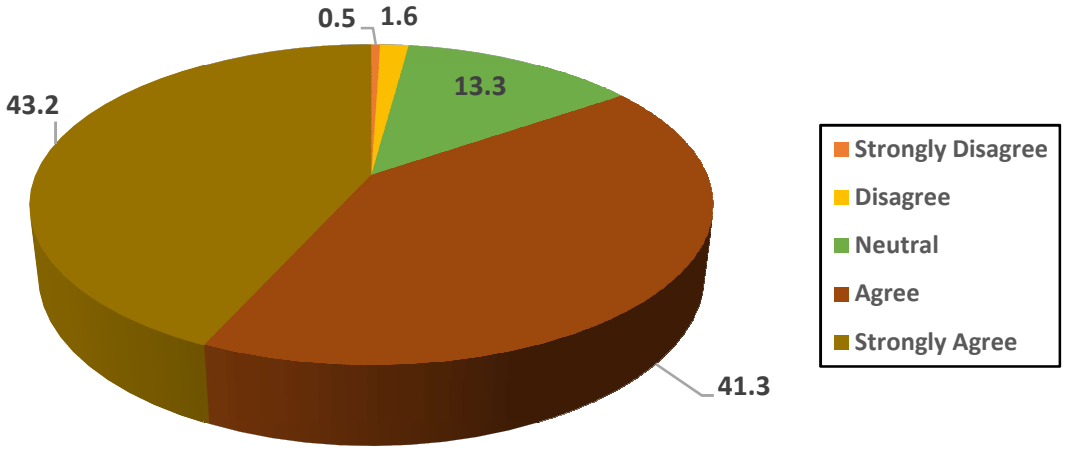
Table No. 4.45

Digital records and transactions are perfect and precise than the manual records and transactions (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	2	0.5	4.3	0.785	18.47 %
2	Disagree	6	1.6			
3	Neutral	50	13.3			
4	Agree	155	41.3			
5	Strongly Agree	162	43.2			
	Total	**375**	**100.0**			

Source:*Field Survey*

Chart No. 4.27: Digital records and transactions are perfect and precise than the manual records and transactions (In %)



4.3 PERCEPTIONS OF STUDENTS

4.46 Distribution of the students according to faculty

Table no. 4.46 and Chart no. 4.28shows distribution of the students according to faculty/ colleges.

Out of the total students, 65.5% (maximum) students belonged to Commerce faculty, followed by 20.1% students, who belonged to science faculty and 14.4 % students belonged to Arts faculty.

Thus, it concludes that majority (65.5%) of the students / respondents belonged from Commerce faculty, because Mumbai is an urban area, where there is more scope for Commerce, which creates jobs for Commerce students.

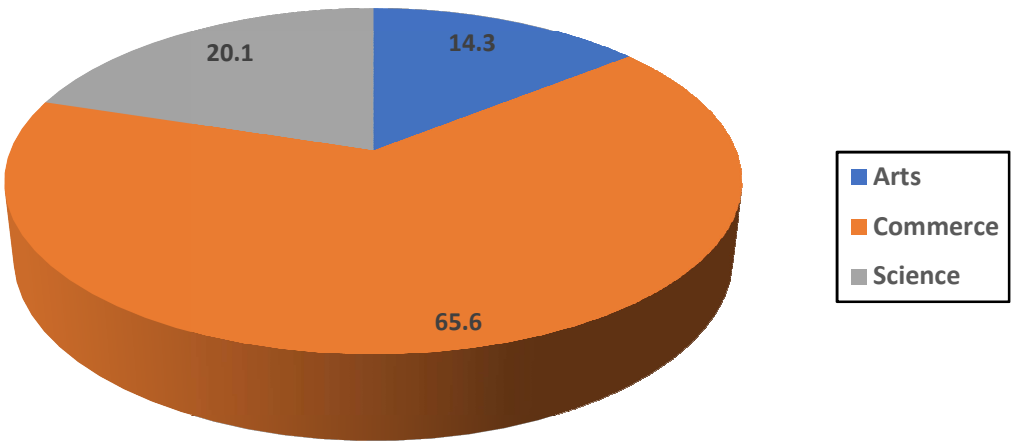
Table No. 4.46

Distribution of the students according to faculty (In %)

Sr. No.	Response	Frequency	Percent
1	Arts	102	14.4
2	Commerce	464	65.5
3	Science	142	20.1
5	**Total**	**708**	**100.0**

Source:*Field Survey*

Chart No. 4.28: Distribution of the students according to faculty (In %)



4.47 Class wise distribution of the students

Table no. 4.47 and Chart no. 4.29 show Class Wise distribution of the students.

Out of the total students, 42.7% (maximum) students were First Year students, followed by 28.2% students, who were Third Year students and only 3.8 % students were Post Graduate students.

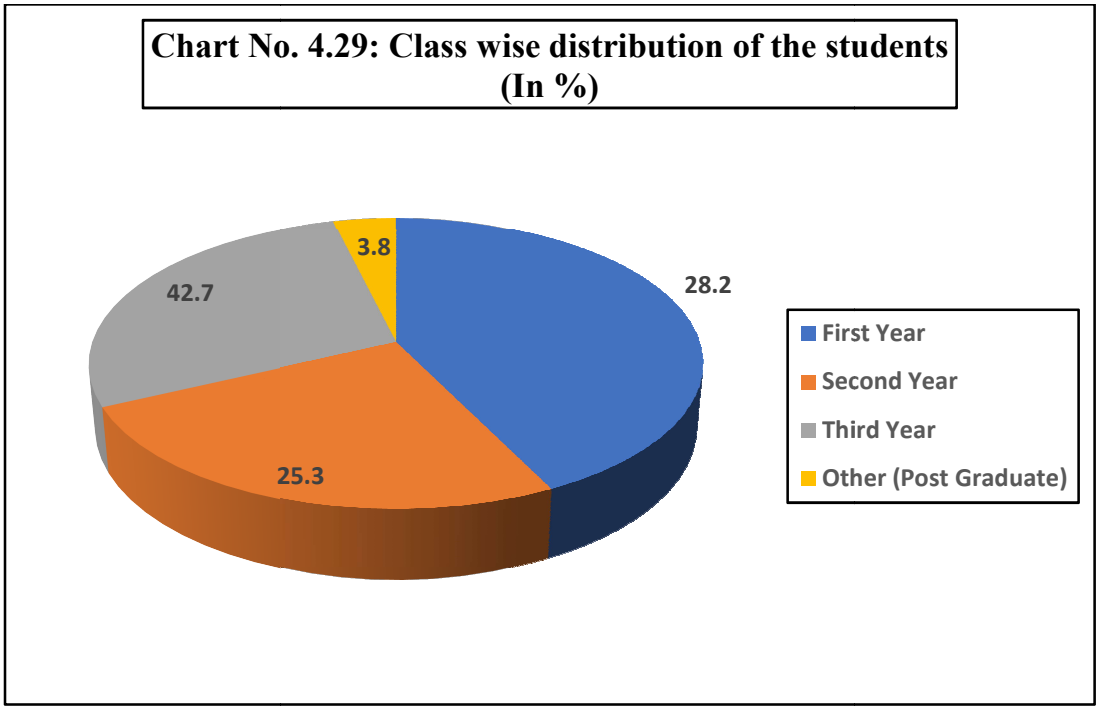
Thus, it concludes that majority (42.7%) of the students / respondents were First Year students, because proportion of First Year students is also much higher in population of the students.

Table No. 4.47

Class wise distribution of the students (In %)

Sr. No.	Response	Frequency	Percent
1	First Year	200	28.2
2	Second Year	179	25.3
3	Third Year	302	42.7
4	Other (Post Graduate)	27	3.8
5	Total	708	100.0

Source:*Field Survey*



4.48 Digital Technology helps students to interact with the faculty and administrative staff

Table no. 4.48 and Chart no. 4.30 show respondents' perception how digital technology helps students to interact with the faculty and the administrative staff.

Out of the total respondents, 46.6% (maximum) respondents were agreed, followed by 25.8% respondents, who strongly agreed and only 2.3 % respondents strongly disagreed that digital technology helps students to interact with the faculty and administrative staff. The descriptive statistics reveals that the Mean is 3.9, Standard Deviation is 0.948 and Coefficient of variance is 24.49%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

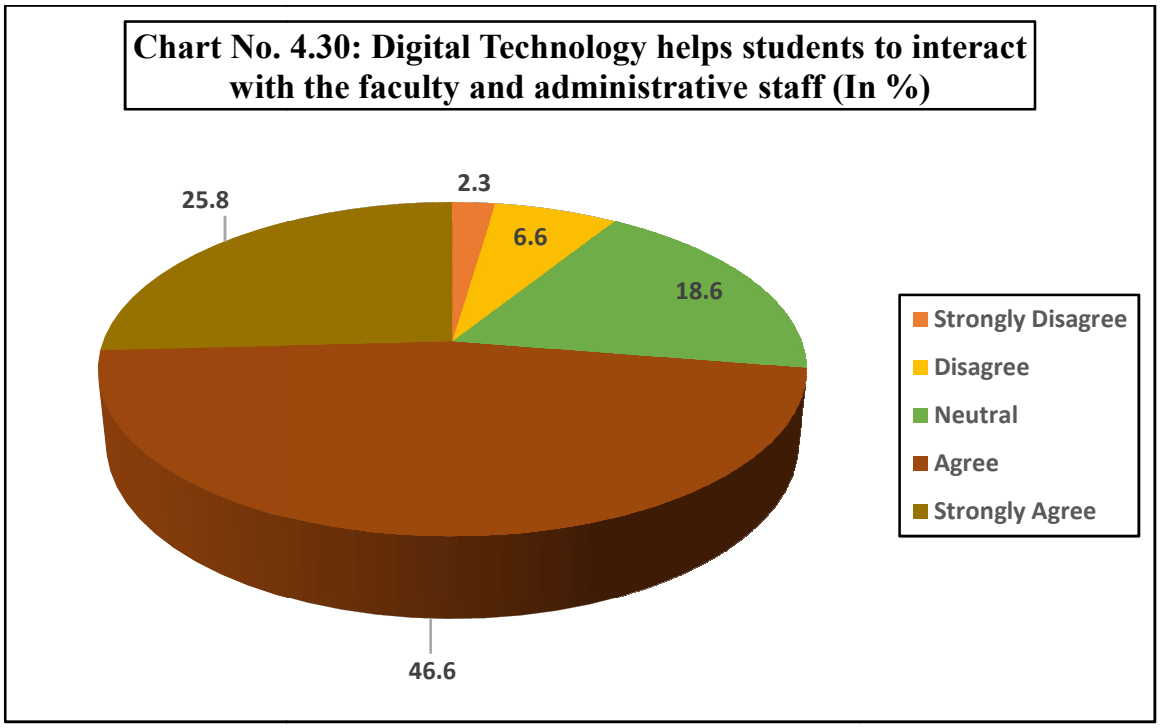
Thus, it concludes that digital technology significantly helps students to interact with the faculty and administrative staff, because the Mean of responses is 3.9 and 72.4% respondents strongly agreed and agreed that digital technology helps students to interact with the faculty and administrative staff.

Table No. 4.48

Digital Technology helps students to interact with the faculty and administrative staff (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	16	2.3	3.9	0.948	24.49
2	Disagree	47	6.6			
3	Neutral	132	18.6			
4	Agree	330	46.6			
5	Strongly Agree	183	25.8			
	Total	**708**	**100.0**			

Source:*Field Survey*



4.49 Students understand better administrative communication through Digital Technology

Table no. 4.49 shows respondents' perception about better understanding of administrative communication through digital technology.

Out of the total respondents, 35.3 % (maximum) respondents agreed, followed by 26.4% respondents, who had a neutral perception and 19.5% respondents strongly agreed. Only 4.4 % respondents strongly disagreed that students understand better administrative communication through digital technology. The descriptive statistics reveals that the Mean is 3.5, Standard Deviation is 1.092 and Coefficient of variance is 31.10%. Since the COV is less and it is less than one third (33%), it Means there is less disparity in the responses of the sample data collected.

Thus, it concludes that students understand administrative communication in a better way through digital technology, because the Mean of responses is 3.5 and 54.8% respondents strongly agreed and agreed that students understand better administrative communication through digital technology.

Table No. 4.49

Students understand better administrative communication through Digital Technology (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	31	4.4	3.5	1.092	31.10
2	Disagree	102	14.4			
3	Neutral	187	26.4			
4	Agree	250	35.3			
5	Strongly Agree	138	19.5			
	Total	**708**	**100.0**			

Source:*Field Survey*

4.50 More awareness of use of Digital Technology among the students is necessary

Table no. 4.50 and Chart no. 4.31 show respondents' perception about awareness of use of digital technology among the students is necessary or not.

Out of total respondents, 38.1% (maximum) respondents agreed, followed by 38.00% respondents, who strongly agreed and only 0.7 % respondent strongly disagreed that more awareness of the use of digital technology among the students is necessary. whereas, 18.4 % respondents were having neutral perception. The descriptive statistics reveals that the Mean is 4.1, Standard Deviation is 0.902 and Coefficient of variance is 22.12%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

Thus, it concludes that more awareness of the use of digital technology among the students is necessary, because the Mean of responses is 4.1 and 76.1% respondents strongly agreed and agreed that more awareness of the use of digital technology among the students is necessary.

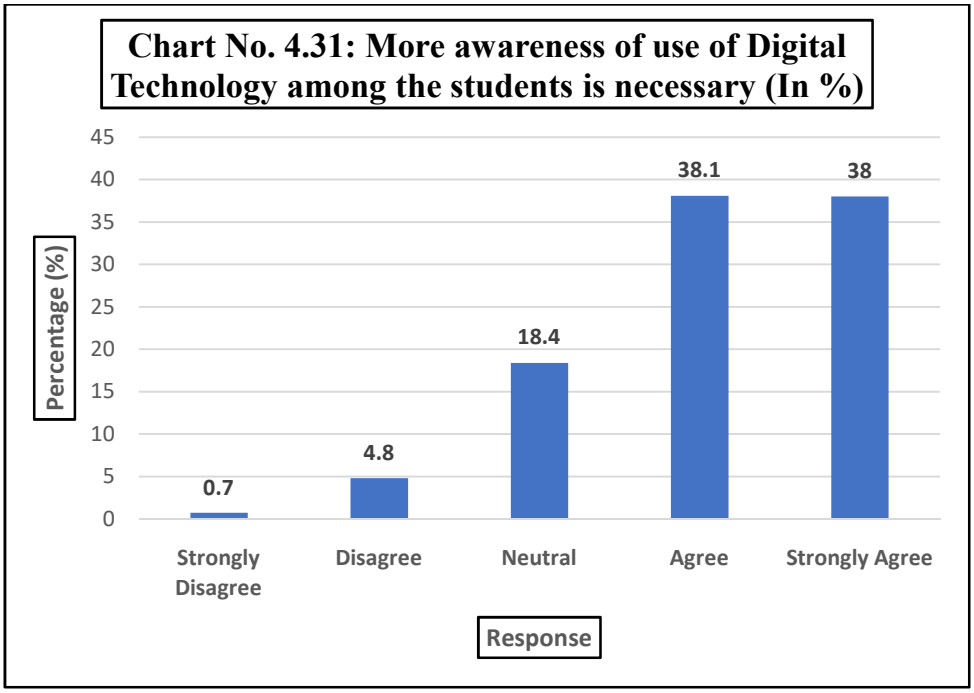
Table No. 4.50

More awareness of Use of Digital Technology among the students is necessary

(In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	5	0.7	4.1	0.902	22.12
2	Disagree	34	4.8			
3	Neutral	130	18.4			
4	Agree	270	38.1			
5	Strongly Agree	269	38.0			
	Total	**708**	**100.0**			

Source:*Field Survey*



4.51 Motivation Given by the college staff initiates the students to use the Digital Technology

Table no. 4.51 shows respondents' perception how motivation given by the college staff inclines the students to use the digital technology or not.

Out of all the respondents, 50.6 percent (maximum) agreed, followed by 23.9 percent of strongly agreeing respondents, and only 1.3 percent of strongly disagreeing respondents that the college faculty motivates students to adopt digital technology, while only 18.1% of respondents said they had a neutral opinion. According to the descriptive statistics, the Mean value is 3.9, the standard deviation is 0.879, and the variance coefficient is 22.56 percent. Since the COV is so low—less than one third (33%)—it indicates that there is less variation in the answers to the sample data that was gathered.

Thus, it is observed that motivation given by the college staff inclines the students to use digital technology, because the Mean of responses is 3.9 and 74.5% respondents strongly agreed and agreed that motivation given by the college staff initiates the students to use digital technology.

Table No. 4.51

Motivation Given by the college staff initiates the students to use the Digital Technology (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	09	1.3	3.9	0.879	22.56
2	Disagree	44	6.2			
3	Neutral	128	18.1			
4	Agree	358	50.6			
5	Strongly Agree	169	23.9			
	Total	**708**	**100.0**			

Source:*Field Survey*

4.52 Use of best software helps the students to deal with Digital Administration

Table no. 4.52 and Chart no. 4.32 show respondents' perception how the use of the best software helps the students to deal with digital administration or not.

Out of the total respondents, 44.5% (maximum) respondents agreed, followed by 38.00% respondents, who strongly agreed and only 1.00 % respondents strongly disagreed that the use of the best software helps the students to deal with digital administration, whereas, 13.3 % respondents were having neutral perception. The descriptive statistics reveals that the Mean is 4.2, Standard Deviation is 0.842and Coefficient of variance is 20.28%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

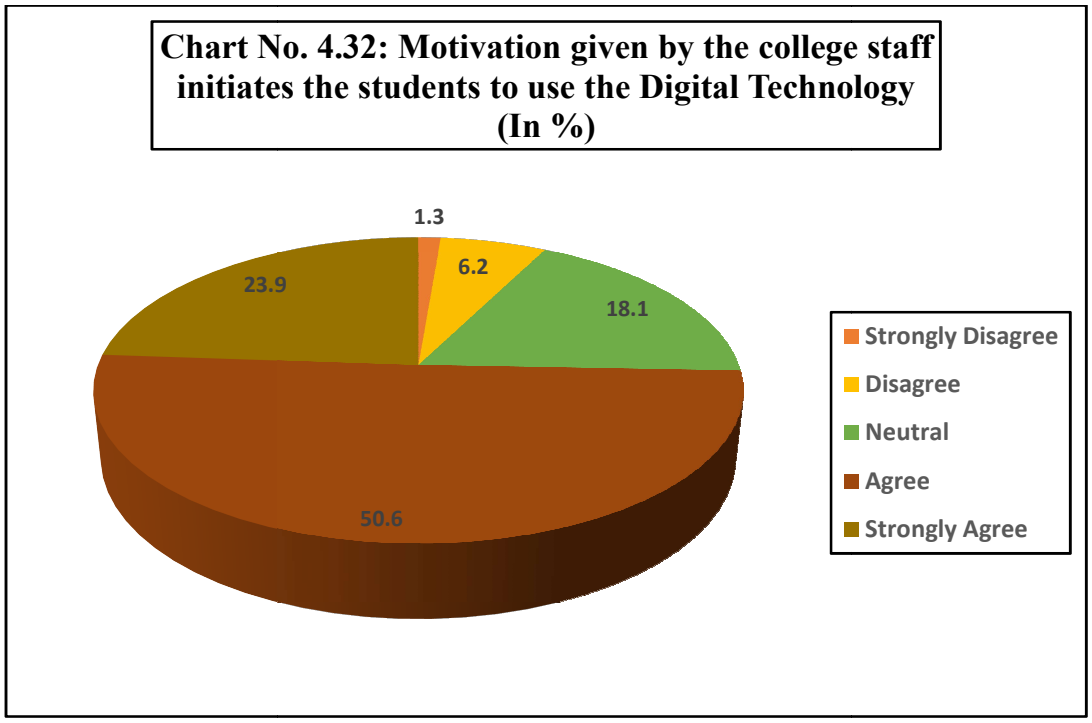
Thus, it is observed that use of the best software significantly helps the students to deal with digital administration, because the Mean of responses is 4.2 and 82.5% respondents strongly agreed and agreed that the use of the best software helps the students to deal with digital administration.

Table No. 4.52

Use of best software helps the students to deal with Digital Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	7	1.0	4.2	0.842	20.28
2	Disagree	23	3.2			
3	Neutral	94	13.3			
4	Agree	315	44.5			
5	Strongly Agree	269	38.0			
	Total	**708**	**100.0**			

Source:*Field Survey*



4.53 Use of mobile application is an easy way to operate for Digital Administration

Table no. 4.53 and Chart no. 4.33 show respondents' perception if use of mobile application is an easy way to operate digital administration.

The majority of respondents, 43.4 percent (maximum), followed by 36.4 percent of strongly agreeing respondents, and only 1.6 percent of strongly disagreeing respondents, agreed that using a mobile application is a simple approach to manage digital administration. 14.3% of respondents, however, expressed a neutral opinion. According to the descriptive statistics, the Mean is 4.1, the standard deviation is 0.903, and the variance coefficient is 22.09 percent. Since the COV is so low—less than one third (33%)—it indicates that there is less variation in the answers to the sample data that was gathered.

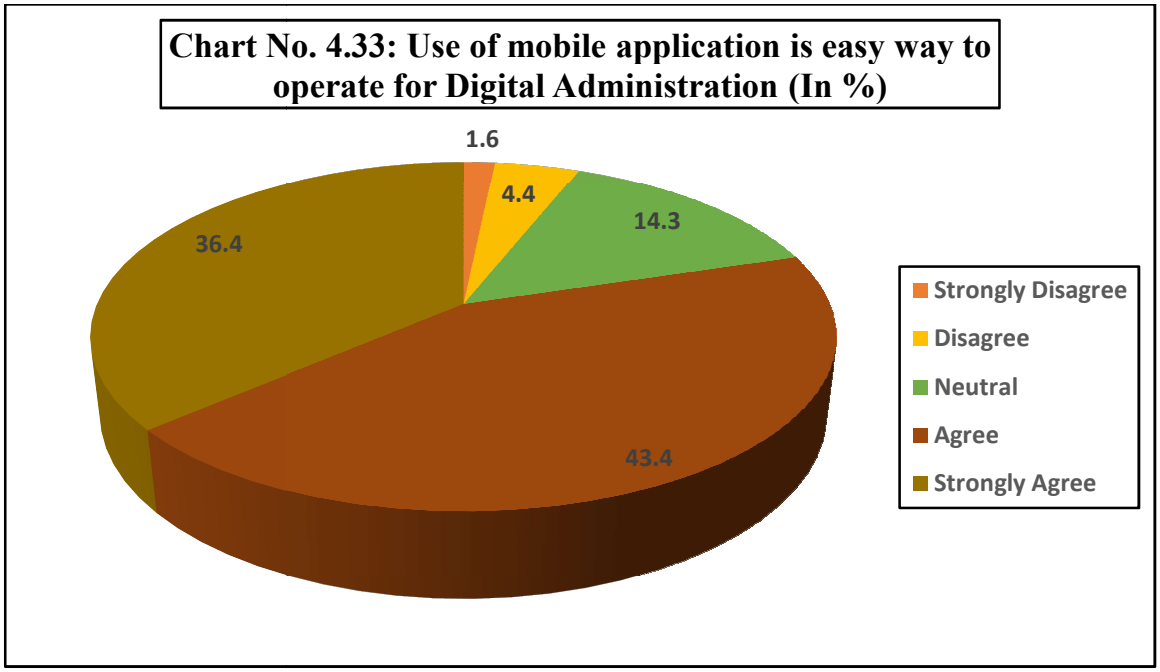
Thus, it is observed that the use of mobile application is an easy way to operate for digital administration, because the Mean of responses is 4.1 and 79.8% respondents strongly agreed and agreed that use of mobile application is an easy way to operate for digital administration.

Table No. 4.53

Use of mobile application is easy way to operate for Digital Administration (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	11	1.6	4.1	0.903	22.09
2	Disagree	31	4.4			
3	Neutral	101	14.3			
4	Agree	307	43.4			
5	Strongly Agree	258	36.4			
	Total	**708**	**100.0**			

Source:*Field Survey*



4.54 Digital Technology saves the time

Table no. 4.54 and Chart no. 4.34 show respondents' perception whether digital technology saves time or not.

Out of the total respondents, 48.9% (maximum) respondents strongly agreed, followed by 37.7% respondents, who were agree and only 0.7 % respondents strongly disagreed that digital technology saves time. The descriptive statistics reveals that the Mean is 4.3, Standard Deviation is 0.820 and Coefficient of variance is 19.03%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

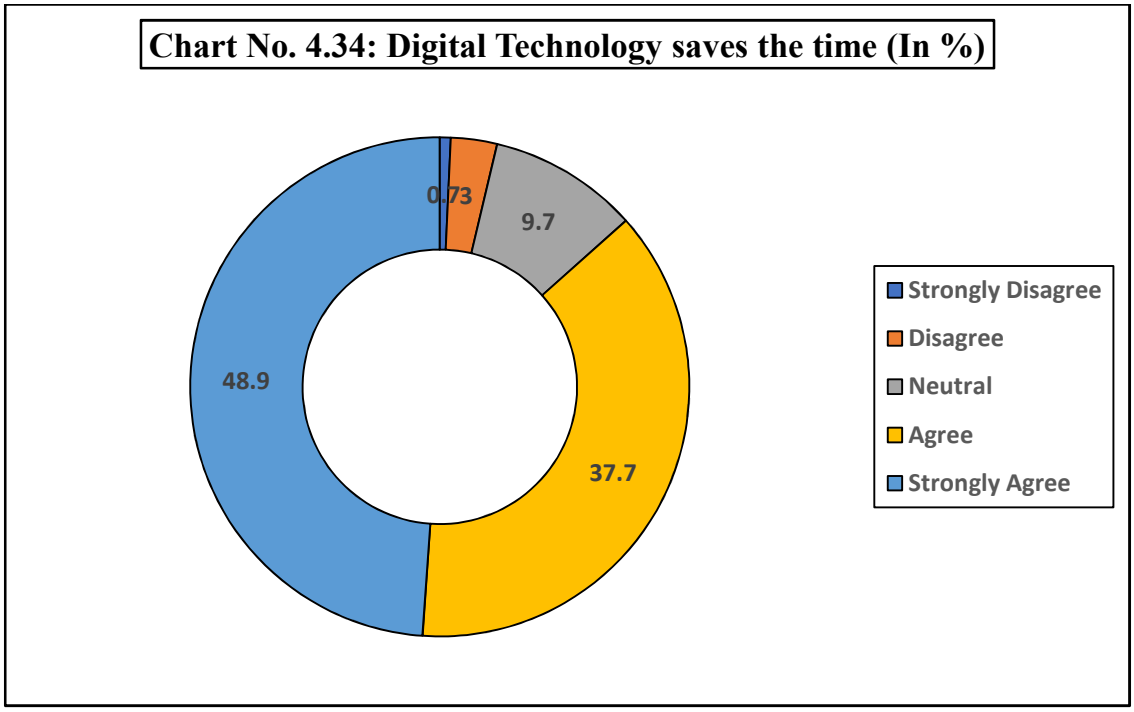
Thus, it concludes that digital technology saves time, because the Mean of responses is 4.3 and 86.60% respondents strongly agreed and agreed that digital technology saves time.

Table No. 4.54

Digital Technology saves the time (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	5	0.7	4.3	0.820	19.03
2	Disagree	21	3.0			
3	Neutral	69	9.7			
4	Agree	267	37.7			
5	Strongly Agree	346	48.9			
	Total	**708**	**100.0**			

Source:*Field Survey*



4.55 Digital Administration is anytime accessible

Table no. 4.55 shows respondents' perception whether digital administration is anytime accessible or not.

Out of total respondents, 41.0% (maximum) respondents agreed, followed by 37.6% respondents, who strongly agreed and only 0.7 % respondents strongly disagreed that

digital administration is anytime accessible, whereas, 16.4 % respondents had a neutral response. The descriptive statistics reveals that the Mean is 4.1, Standard Deviation is 0.877 and Coefficient of variance is 21.37%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

Thus, it is observed that digital administration is anytime accessible, because the Mean of responses is 4.1 and 78.60 % respondents strongly agreed and agreed that digital administration is anytime accessible.

Table No. 4.55

Digital Administration is anytime accessible (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	5	0.7	4.1	0.877	21.37
2	Disagree	31	4.4			
3	Neutral	116	16.4			
4	Agree	290	41.0			
5	Strongly Agree	266	37.6			
	Total	**708**	**100.0**			

Source:*Field Survey*

4.56 Online payment is easy and safe mode for payment of fees

Table no. 4.56 and Chart no. 4.35 shows respondents' perception about easy and safe nature online payment for payment of fees.

Out of all the respondents, 37.7 percent (maximum) agreed that paying online fees is a simple and secure process, followed by 36.3 percent of strongly agreeing respondents, and just 1.7 percent of strongly disagreeing respondents. However, 18.5 percent of respondents had a neutral response. According to the descriptive statistics, the Mean value is 4.0, the standard deviation is 0.966, and the variance coefficient is 24.09 percent. Since the COV is so low—less than one third (33%)—it indicates that there is less variation in the answers to the sample data that was gathered.

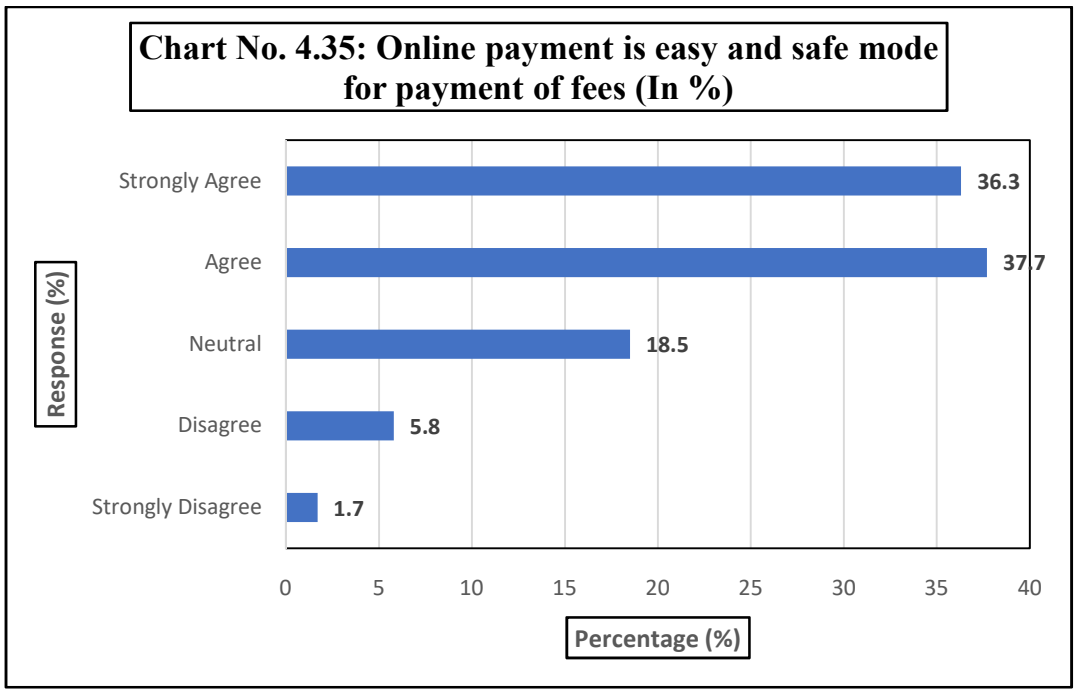
Thus, it concludes that online payment is an easy and a safe mode for payment of fees, because the Mean of responses is 4.0 and 74.00% respondents strongly agreed and agreed that online payment is easy and safe mode for payment of fees.

Table No. 4.56

Online Payment is easy and safe mode for payment of fees (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	12	1.7	4.0	0.966	24.09
2	Disagree	41	5.8			
3	Neutral	131	18.5			
4	Agree	267	37.7			
5	Strongly Agree	257	36.3			
	Total	**708**	**100.0**			

Source:*Field Survey*



4.57 College staff are easily approachable due to Digital Technology

Table no. 4.57 and Chart no. 4.36 show respondents' perception how college staff is easily approachable due to digital technology or not.

Out of the total respondents, 44.2% (maximum) respondents agreed, followed by 23.3 % respondents, who had a neutral response and only 2.4 % respondents strongly disagreed that the college staff is easily approachable due to digital technology. The descriptive statistics reveals that the Mean is 3.8, Standard Deviation is 0.965 and Coefficient of variance is 25.66%. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

Thus, it concludes that the college staff is easily approachable due to digital technology, because the Mean of responses is 3.8 and 66.4% respondents strongly agreed and agreed that the college staff is easily approachable due to digital technology.

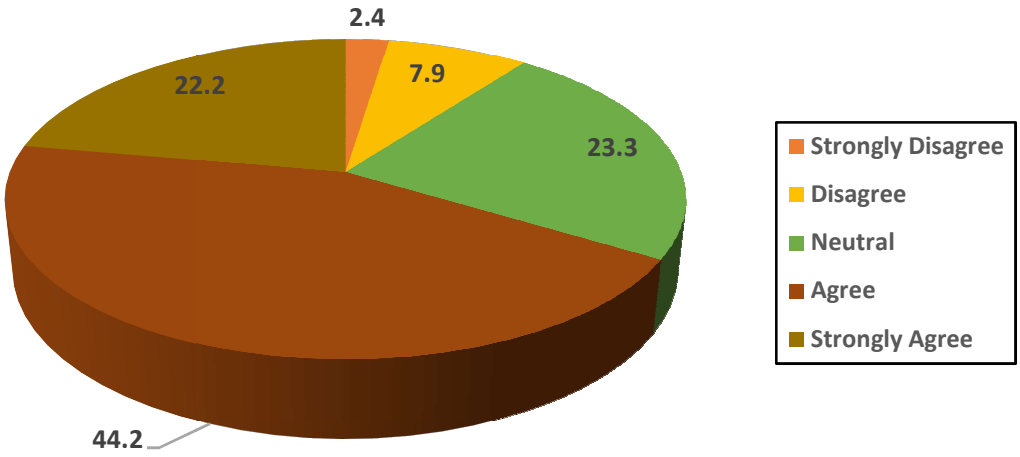
Table No. 4.57

College staff are easily approachable due to Digital Technology (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	17	2.4	3.8	0.965	25.66
2	Disagree	56	7.9			
3	Neutral	165	23.3			
4	Agree	313	44.2			
5	Strongly Agree	157	22.2			
	Total	**708**	**100.0**			

Source:*Field Survey*

Chart No. 4.36: College staff are easily approachable due to Digital Technology (In %)



4.58 Necessity of training about the use of Digital Platform used in the college

Table no. 4.58 shows respondents' perception about the necessity of training in the use of digital platform used in the college.

Out of the total respondents, 43.2 % (maximum) respondents agreed, followed by 34.7 % respondents, who strongly agreed and only 1.3 % respondents strongly disagreed that training in the use of Digital Platform used in colleges, is necessary. The descriptive statistics reveals that the Mean is 4.1, Standard Deviation is 0.891 and Coefficient of variance is 21.95 %. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

Thus, it concludes that training in the use of Digital Platform used in colleges is necessary, because the Mean of responses is 4.1 and 77.9 % respondents strongly agreed and agreed that training in the use of Digital Platform used in colleges is necessary.

Table No. 4.58

Training about the use of Digital Platform used in the college is necessary

(In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	9	1.3	4.1	0.891	21.95
2	Disagree	30	4.2			
3	Neutral	117	16.5			
4	Agree	306	43.2			
5	Strongly Agree	246	34.7			
	Total	**708**	**100.0**			

Source:*Field Survey*

4.59 Understanding and acknowledging the communication by students through Digital Technology

Table no. 4.59 and chart no. 4.37 show respondents' perception about understanding and acknowledging the communication by students through Digital Technology.

Out of the total respondents, 37.0 % (maximum) respondents agreed, followed by 25.7 % respondents, who were neutral and only 4.8 % respondents strongly disagreed that students understand well and also acknowledge the communication through digital technology. The descriptive statistics reveals that the Mean is 3.6, Standard Deviation is 1.081 and Coefficient of variance is 29.62 %. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

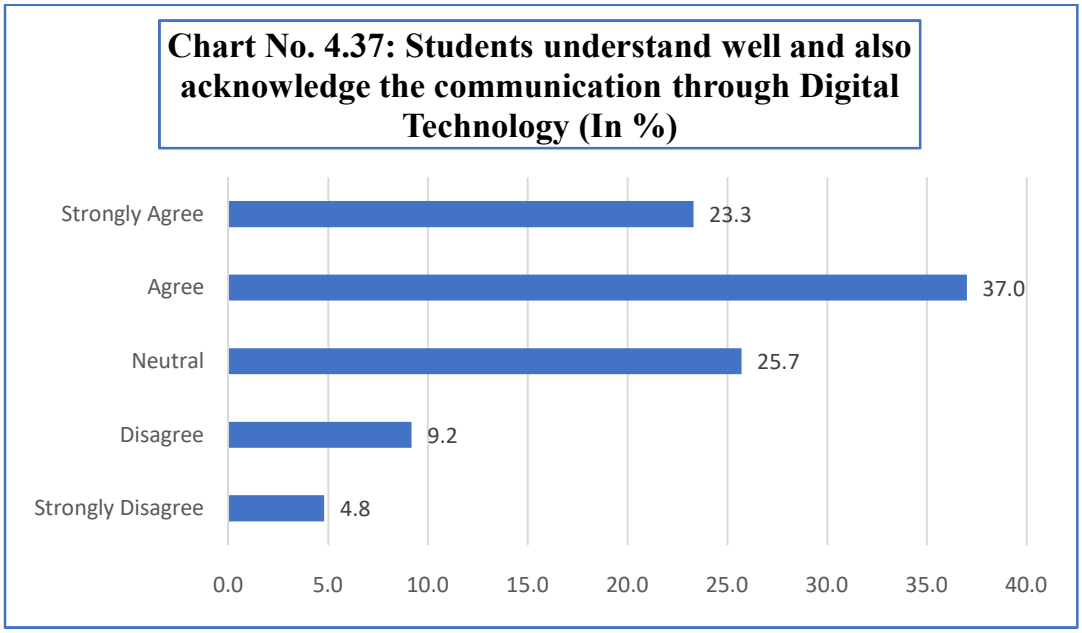
Thus, it concludes that students understand well and also acknowledge the communication through digital technology, because the Mean of responses is 3.6 and 60.3 % respondents strongly agreed and agreed that students understand well and also acknowledge the communication through digital technology, but a neutral response (25.7 %) of the respondents also reveals the ineffectiveness of digital technology in teaching learning process.

Table No. 4.59

Students understand well and also acknowledge the communication through Digital Technology (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	34	4.8	3.6	1.081	29.62
2	Disagree	65	9.2			
3	Neutral	182	25.7			
4	Agree	262	37.0			
5	Strongly Agree	165	23.3			
	Total	**708**	**100.0**			

Source:*Field Survey*



4.60 Usefulness of Digital Technology for admissions, examination and other administrative work

Table no. 4.60 shows respondents' perception about the usefulness of Digital Technology for admissions, examination and other administrative work.

Out of the total respondents, 41.9 % (maximum) respondents agreed, followed by 37.7 % respondents, who strongly agreed and only 1.3 % respondents strongly disagreed that digital technology is useful for admissions, examination and other administrative work. The descriptive statistics reveals that the Mean is 4.1, Standard Deviation is 0.871 and Coefficient of variance is 21.14 %.

Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

Thus, it concludes that digital technology is useful for admissions, examination and other administrative work, because the Mean of responses is 4.1 and 79.6% respondents were strongly agree and agree that digital technology is useful for admissions, examination and other administrative work.

Table No. 4.60

Digital Technology is useful for admissions, examination and other administrative work (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	9	1.3	4.1	0.871	21.14
2	Disagree	21	3.0			
3	Neutral	114	16.1			
4	Agree	297	41.9			
5	Strongly Agree	267	37.7			
	Total	**708**	**100.0**			

Source:*Field Survey*

4.61 Digital Administration is convenient

Table no. 4.61and chart no. 4.38 shows respondents' perception about the convenient nature of Digital Administration.

Out of the total respondents, 44.8 % (maximum) respondents agreed, followed by 28.2 % respondents, who strongly agreed and only 1.3 % respondents strongly disagreed that Digital Administration is convenient. The descriptive statistics reveals that the Mean is 3.9, Standard Deviation is 0.887 and Coefficient of variance is 22.51 %. Since the COV is very less and it is less than one third (33%), it means there is less disparity in the responses of the sample data collected.

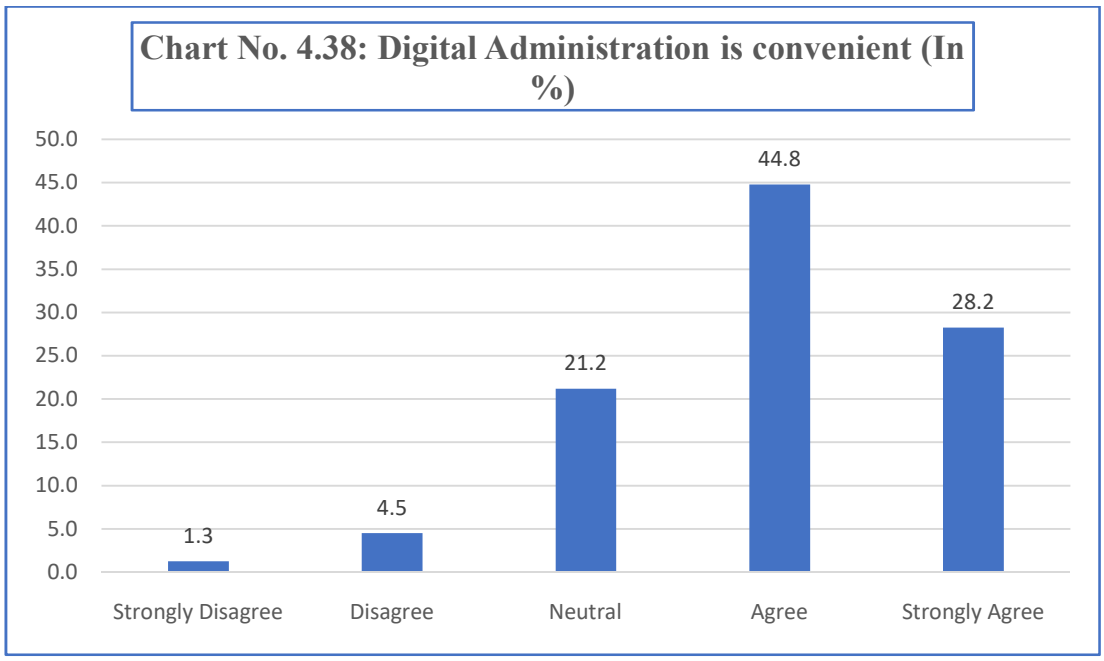
Thus, it concludes that Digital Administration is convenient, because the Mean of responses is 3.9 and 73.0% respondents strongly agreed and agreed that digital administration is convenient.

Table No. 4.61

Digital Administration is convenient (In %)

Sr. No.	Response	Frequency	Percent	Mean	Std. dev.	COV
1	Strongly Disagree	9	1.3	3.9	0.887	22.51
2	Disagree	32	4.5			
3	Neutral	150	21.2			
4	Agree	317	44.8			
5	Strongly Agree	200	28.2			
	Total	**708**	**100.0**			

Source:*Field Survey*



4.62 Conclusion

From the above data analysis and interpretation, the researcher comes to a conclusion that this study concentrates on the need of digital technology in college administration, awareness about digital administration and change in efficiency of staff due to Digital Technology in the study area. Present study gives definite results to identify the relationship of various components in the college administration with respect to digital technology. The present study also gives a definite perception of the staff and students in various areas of digital administration in the colleges.

4.4 HYPOTHESIS TESTING OF THE STUDY

Hypothesis Testing- Students

To check that the research was headed in the right direction at each stage, the researcher employed testing techniques. With the help of the factor analysis method, a large number of variables are reduced to a few selected factors and characteristics that are strongly related to one another. Additionally, it assisted in removing variables that wouldn't be relevant to subsequent research.

The researcher had considered the exploratory factor analysis in Student Data where there were 14items on the questionnaire. The14 item statements have gone through the exploratory factor analysis and have produced 3 factors which are mentioned below:

1. Student_Communication_Administrative_System(S1,S2,S4,S10,S12)
2. Usability_Digital_Technology_Students(S3,S5,S6,S11)
3. Efficient_Digital_Technology_Students(S7, S8, S9, S14)

Only one item has been dropped since its loading was less than 0.5.

Research Question-1

Is there any effect of how the usability of digital technology is perceived by students in aided general colleges on the efficiency of digital technology?

Statistical Test: Linear Regression

Hypothesis-1

H0: There is no effect on the efficiency of digital technology in aided general colleges due to the usability of digital technology perceived by students.

H1: There is an effect on the efficiency of digital technology in aided general colleges due to the usability of digital technology perceived by students.

Level of Significance: 0.05

Test Statistics:

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.604[a]	.365	.365	.51398	.365	406.542	1	706	.000

a. Predictors: (Constant), Usability_Digital_Technology_Students

b. Dependent Variable: Efficient_Digital_Technology_Students

Table No 4.62 : Summary for Student's usability and efficiency of DT

The above statistics provides the R and R^2 values. The R-value represents the simple correlation and is 0.604, which indicates a moderate degree of correlation. The R^2 value indicates how much of the total variation in the dependent variable, efficiency of digital technology in aided general colleges can be explained by the independent variable, Usability of Digital Technology in aided general colleges from the student's perspective. 36% can be explained in this case, which is very decent enough.

The ANOVA table that follows reports how well the regression equation predicts the dependent variable by reporting how well it matches the data:

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	107.399	1	107.399	406.542	.000[b]
	Residual	186.509	706	.264		
	Total	293.907	707			

a. Dependent Variable: Efficient_Digital_Technology_Students

b. Predictors: (Constant), Usability_Digital_Technology_Students

Table No. 4.63 : Test for Student's usability and efficiency of DT

This table indicates that the regression model predicts the dependent variable significantly well. This indicates the statistical significance of the regression model that was run. Here, a p-value is less than 0.05 and indicates that the regression model statistically and significantly predicts the outcome variable (i.e., it is a good fit for the data).

We will also look into the coefficients table, which gives us the data we need to forecast the effectiveness of digital technology in aided general colleges based on how usable it is, and see if the usability of digital technology in aided general colleges makes a statistically significant contribution to the model.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.577	.126		12.491	.000
	Usability_Digital_Technology_Students	.614	.030	.604	20.163	.000

a. Dependent Variable: Efficient_Digital_Technology_Students

Table 4.64 : Coefficient relation Student's usability and efficiency of DT

To present the regression equation as:

The efficiency of Digital Technology = 1.577 + 0.614 (usability of digital technology in HEI**)**

Therefore, we can state that since the p-value for the ANOVA and Model Summary is less than 0.05, we cannot accept the null hypothesis. As a result, the alternate hypothesis is used, which suggests that there is a relationship between the usability of digital technology as perceived by students and the efficiency of digital technology in aided general colleges.

The following are the theories that explain how students' perceptions of the usability of technology have an impact on how effective it is in aided general colleges.

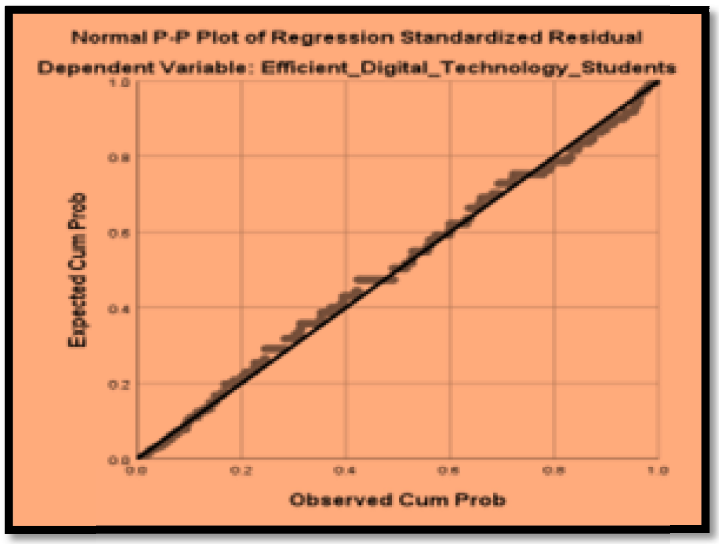


Figure 4.39 : Students perception for usability and efficiency of DT

This plot shows that the distribution of errors is normal since linearity is there. It has used standardized values of residuals making it into a straight line. Hence, we can say that there is an effect on the efficiency of digital technology in higher education due to the usability of digital technology perceived by students.

Research Question-2

Is there a statistically significant difference in leveraging of digital technology amongst students of each graduation year to communicate and interact with faculties and administrative staff of aided general colleges ?

Statistical Test: One Way ANOVA

Hypothesis-2

H0: There is no difference in leveraging of digital technology amongst students of each graduation year to communicate and interact with faculties and administrative staff of aided general colleges.

H1: There is a difference in leveraging of digital technology amongst students of each graduation year to communicate and interact with faculties and administrative staff of aided general colleges.

Level of Significance: 0.05

Test Statistics:

ANOVA

Student_Communication_Administrative_System

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.881	2	3.440	6.303	.002
Within Groups	384.830	705	.546		
Total	391.710	707			

Table 4.65 Test for study year wise student's communication with administration

One-way ANOVA (F(2,705) = 6.303, p<= .002).

The significance value is 0.002, which is less than 0.05, as can be seen and as a result, there is a statistically significant difference in the mean of students' leveraging the digital technology in communication and interaction with their faculties and administrative staff and the different study years of the students. This is great to know, but we do not know which of the specific groups differed. Luckily, we can find this out in the Multiple Comparisons table which contains the results of the Tukey post hoc test.

Multiple Comparisons

Dependent Variable: Student_Communication_Administrative_System

Tukey HSD

(I) The year of study	(J) The year of study	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval Lower Bound	95% Confidence Interval Upper Bound
First Year	Second Year	.12517	.06969	.172	-.0385	.2888
	Third Year	-.13563	.06490	.093	-.2881	.0168
Second Year	First Year	-.12517	.06969	.172	-.2888	.0385
	Third Year	-.26079*	.07385	.001	-.4342	-.0873
Third Year	First Year	.13563	.06490	.093	-.0168	.2881
	Second Year	.26079*	.07385	.001	.0873	.4342

*. The mean difference is significant at the 0.05 level.

Table 4.66 Comparison table for study year wise student's communication with administration

We can see from the table above that there is a statistically significant difference in aided general colleges students leveraging the digital technology to communicate and interact with their respective faculties and administrative staff among the group that studies in different years; second-year students and third-year students (p = 0.001). However, there was no difference between the groups that studied in the first year and second year about leveraging digital technology for communication and interaction with their respective faculties and administrative staff.

For the further details, we will look into the descriptive table mentioned below:

Descriptives

Student_Communication_Administrative_System

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
First Year	302	3.7252	.64973	.03739	3.6516	3.7987	1.60	5.00
Second Year	179	3.6000	.84028	.06281	3.4761	3.7239	1.20	5.00
Third Year	227	3.8608	.76448	.05074	3.7608	3.9608	1.00	5.00
Total	708	3.7370	.74434	.02797	3.6821	3.7919	1.00	5.00

Table 4.67 : Descriptive analysis for the study of year-wise student's communication with administration

The above table indicates that the third-year students are leveraging digital technology to communicate and interact with faculties and administrative staff more than the second-year students.

So, we can say that as the students mature, they handle the digital technology more viably to explore opportunities to communicate and interact with faculties and administrative staff of aided general colleges. The mean plot shows the above discussion graphically.

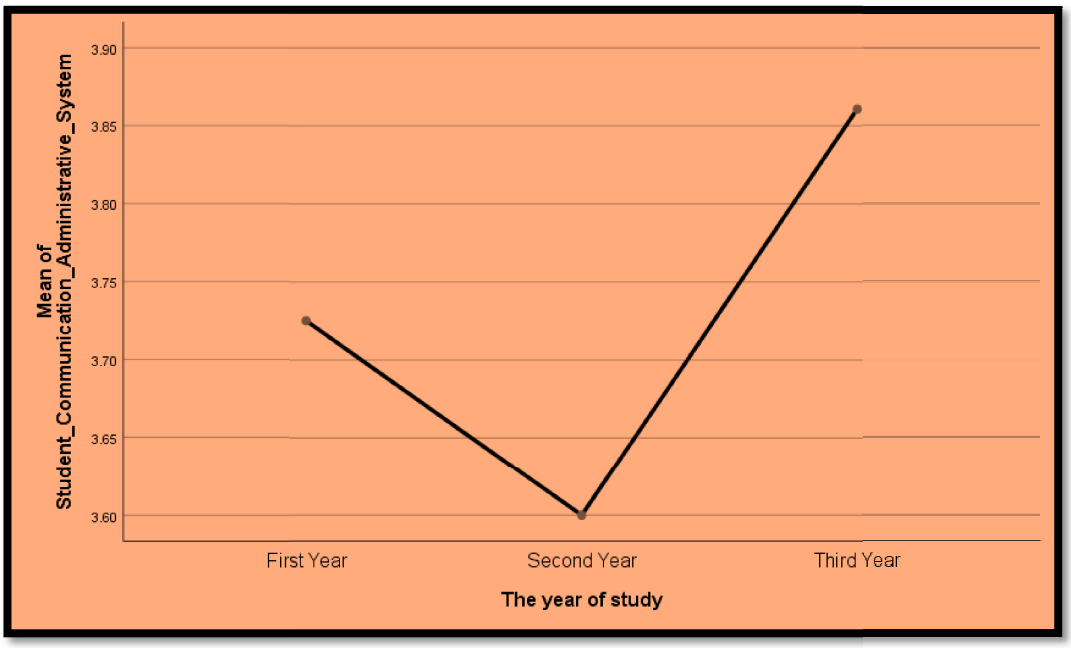


Figure 4.40 Study of year-wise students Communication with administration

Research Question-3

Whether there is a statistically significant difference in leveraging of digital technology amongst students of each program to communicate and interact with faculties and administrative staff of aided general colleges.

Statistical Test: One Way ANOVA

Hypothesis-3

H0: There is no difference in leveraging of digital technology amongst students of each program to communicate and interact with faculties and administrative staff of aided general colleges.

H1: There is a difference in leveraging of digital technology amongst students of each program to communicate and interact with faculties and administrative staff of aided general colleges.

Level of Significance: 0.05

Test Statistics:

ANOVA

Student_Communication_Administrative_System

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.316	2	2.658	4.850	.008
Within Groups	386.394	705	.548		
Total	391.710	707			

Table 4.68 : Test for program wise student's communication with administration

One-way ANOVA (F(2,705) = 4.850, p<= .008).

The significance value is 0.008, which is less than 0.05, as can be seen. Consequently, there is a statistically significant difference between the group means of students' of each program and using digital technology to connect and communicate with faculty members and administrative staff of aided general colleges. Although this is an excellent information, we are unaware of which particular program groups of differed. Fortunately, the Multiple Comparisons table, which includes the Tukey post hoc test findings, allows us to determine this.

Multiple Comparisons

Dependent Variable: Student_Communication_Administrative_System

Tukey HSD

(I) Your Specialization	(J) Your Specialization	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Arts	Commerce	.21879*	.08129	.020	.0279	.4097
	Science	.28826*	.09622	.008	.0623	.5143
Commerce	Arts	-.21879*	.08129	.020	-.4097	-.0279
	Science	.06948	.07081	.589	-.0968	.2358
Science	Arts	-.28826*	.09622	.008	-.5143	-.0623
	Commerce	-.06948	.07081	.589	-.2358	.0968

*. The mean difference is significant at the 0.05 level.

Table 4.69 : H3 Comparison table for program wise student's communication with administration

We can see from the table above that there is a statistically significant difference in aided general colleges students leveraging the digital technology to communicate and interact with their respective faculties and administrative staff among the group of each program that studies different specializations. Arts and Commerce students

(p<=0.020), Arts and Science students (p<=0.008). However, there were no differences between the groups that studied Science and Commerce specialization about leveraging digital technology for communication and interaction with their respective faculties and administrative staff.

For the further details, we will look into the descriptive table mentioned below:

Descriptives

Student_Communication_Administrative_System

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Arts	101	3.9386	.68804	.06846	3.8028	4.0744	1.80	5.00
Commerce	464	3.7198	.75394	.03500	3.6510	3.7886	1.00	5.00
Science	143	3.6503	.73099	.06113	3.5295	3.7712	1.20	5.00
Total	708	3.7370	.74434	.02797	3.6821	3.7919	1.00	5.00

Table 4.70 Descriptive analysis for program wise student's communication with administration

The above table indicates that the Arts students are leveraging digital technology to communicate and interact with faculties and administrative staff more than the Commerce or science students.

So, we can say that the students from the arts faculty are more able to handle the digital technology to explore opportunities to communicate and interact with faculties and administrative staff of higher education. The mean plot shows the above discussion graphically.

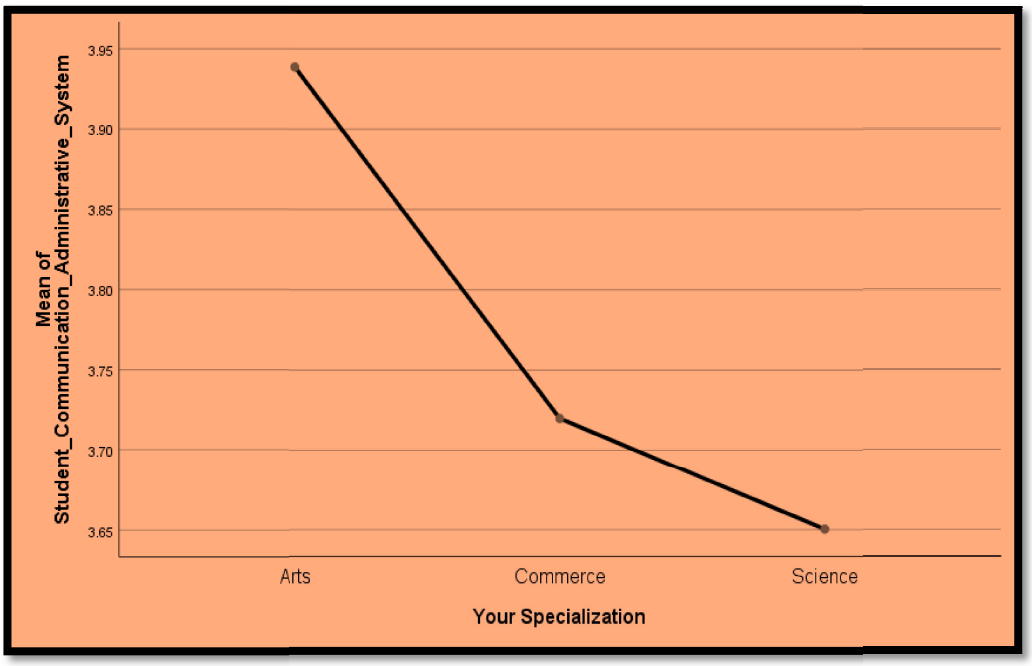


Figure 4.41 Study program wise student's communication with administration

Hypothesis Testing-Staff

The researcher had considered the exploratory factor analysis in staff Data where there were 38 items on the questionnaire.

The 38 item statements have gone through the exploratory factor analysis and have produced 4 factors which are mentioned below:

1. Adoption_Digital_Technology(ST14, ST15, ST16, ST17, ST18, S20, ST21)
2. Records_Maintenance_Digital_Technology(ST3, ST4, ST2, ST1, ST5, ST6)
3. Service_Quality_Digital_Technology(ST33, ST34, ST35, ST26, ST36)
4. Operations_Management_Digital_Technology(ST9, ST11, ST8, ST10, ST12, ST13, ST7)
5. Data_Management_Digital_Technology(ST22, ST23, ST19, ST25, ST24)
6. System_Fairness_Digital_Technology(ST29, ST37, ST30, ST28)

Only four items have been dropped since their loading was less than 0.5.

Research Question-4

Whether there is a statistically significant a difference in adoption of digital technology amongst all staff position in aided general colleges.

Statistical Test: One Way ANOVA

Hypothesis-4

H0: There is no difference in adoption of digital technology amongst all staff position in aided general colleges.

H1: There is a difference in adoption of digital technology amongst all staff position in aided general colleges.

Level of Significance: 0.05

Test Statistics:

ANOVA

Adoption_Digital_Technology

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.747	2	.873	4.547	.011
Within Groups	71.450	372	.192		
Total	73.197	374			

Table 4.71 : Test for position wise adoption of DT

One-way ANOVA (F(2,372) = 4.547, p<= .011).

We can see that the significance value is 0.011, which is below 0.05 and therefore, there is a statistically significant difference between our group means of position held by the staff and the adoption of digital technology by them in aided general colleges. This is great to know, but we do not know which of the specific groups differed. Luckily, we can find this out in the Multiple Comparisons table which contains the results of the Tukey post hoc test.

Multiple Comparisons

Dependent Variable: Adoption_Digital_Technology

Tukey HSD

(I) Post Held	(J) Post Held	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Principal	Teaching Staff	.11369	.10617	.533	-.1361	.3635
	Administrative Staff	.22958	.10543	.076	-.0185	.4777
Teaching Staff	Principal	-.11369	.10617	.533	-.3635	.1361
	Administrative Staff	.11589*	.04658	.035	.0063	.2255
Administrative Staff	Principal	-.22958	.10543	.076	-.4777	.0185
	Teaching Staff	-.11589*	.04658	.035	-.2255	-.0063

*. The mean difference is significant at the 0.05 level.

Table 4.72 : Multiple Comparison for position-wise adoption of DT

We can see from the table above that there is a statistically significant difference in different postition held by the staff and the adoption of digital technology by them in aided general colleges; teaching staff and administrative staff (p<=0.035). However, there were no differences between the groups that held the position of Principal vs teaching or administrative staff.

For the further details, we will investigate the descriptive table mentioned below:

Descriptives

Adoption_Digital_Technology

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Principal	19	4.7068	.33494	.07684	4.5453	4.8682	4.00	5.00
Teaching Staff	165	4.5931	.45384	.03533	4.5233	4.6628	2.00	5.00
Administrative Staff	191	4.4772	.43317	.03134	4.4154	4.5390	3.00	5.00
Total	375	4.5398	.44239	.02285	4.4949	4.5847	2.00	5.00

Table 4.73 : Descriptive analysis of position-wise adoption of DT

The above table indicates that the teaching staff has adopted more digital technology for the aided general colleges rather than the administrative staff.

So, we can say that the teaching staff is more qualified than the administrative staff and hence the case can be that they understand digital technology much better than the others whereas Principals stay away from the adoption of digital technology as compared to teaching and administrative staff. The mean plot shows the above discussion graphically.

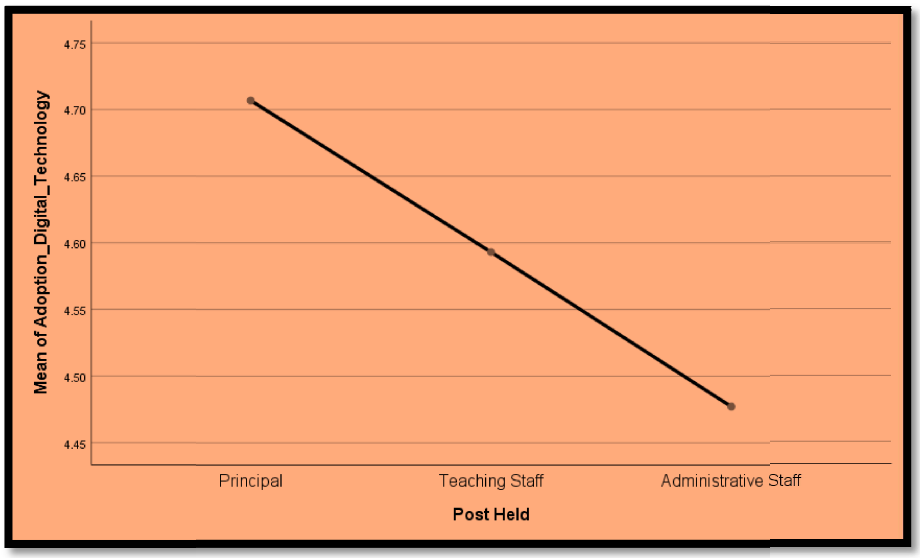


Figure 4.42 Staff Position-wise adoption of DT

Research Question-5

Whether there is any relationship between the different components of digital technology being used in aided general colleges ?

Statistical Test: Pearson correlation

Hypothesis-5

H0: There is no relationship between the different components of digital technology being used in aided general colleges.

H1: There is a relationship between the different components of digital technology being used in aided general colleges.

Level of Significance: 0.05

Test statistics:

Correlations

		Adoption_Digital_Technology	Records_Maintenance_Digital_Technology	Service_Quality_Digital_Technology	Operations_Management_Digital_Technology	Data_Management_Digital_Technology	System_Fairness_Digital_Technology
Adoption_Digital_Technology	Pearson Correlation	1	.519**	.607**	.595**	.686**	.650**
	Sig. (2-tailed)		.000	.000	.000	.000	.000
	N	375	375	375	375	375	375

Table 4.74 : Correlation between different components of DT

From the above test statistics, we can say that all the components of digital technology in aided general colleges are correlated to each other. We can define that they are moderately correlated to each other since the correlation value is ranging from 0.5 to 0.7.

Hence, we can say that as the staff is involved in different activities for the usage of digital technology all activities are correlated to each other like adopting technology to maintain the records, at the same time deliver the quality and manage the operations using the existing and new data and keep the current education system fair and transparent using digital technology.

Research Question-6

Whether there is a statistically significant difference in adoption of digital technology in all sets of qualified staff in aided general colleges?

Statistical Test: One Way ANOVA

Hypothesis-6

H0: There is no difference in adoption of digital technology in all sets of qualified staff in aided general colleges.

H1: There is a difference in adoption of digital technology in all sets of qualified staff in aided general colleges.

.

Level of Significance: 0.05

Test Statistics:

ANOVA

Adoption_Digital_Technology

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.963	4	.741	3.903	.004
Within Groups	70.233	370	.190		
Total	73.197	374			

Table 4.75 : Test for qualification wise adoption of DT

One-way ANOVA (F(4,370) = 3.903, p<= .004).

There is a statistically significant difference between group means of all sets of qualification and the usage of digital technology in aided general colleges, as shown by the significance value of 0.004, which is below 0.05. Although this is an excellent information, we are unaware of which particular groups differed. Fortunately, the Multiple Comparisons table, which includes the Tukey post hoc test findings, allows us to determine this.

Multiple Comparisons

Dependent Variable: Adoption_Digital_Technology

Tukey HSD

(I) Qualification	(J) Qualification	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
HSC	Graduate	-.25065	.10783	.139	-.5462	.0449
	Post Graduate	-.30367*	.10572	.035	-.5935	-.0139
	Doctorate	-.41093*	.11190	.003	-.7177	-.1042
	Other	-.18045	.21899	.923	-.7808	.4198
Graduate	HSC	.25065	.10783	.139	-.0449	.5462
	Post Graduate	-.05302	.05313	.856	-.1987	.0926
	Doctorate	-.16028	.06455	.097	-.3372	.0167
	Other	.07020	.19900	.997	-.4753	.6157
Post Graduate	HSC	.30367*	.10572	.035	.0139	.5935
	Graduate	.05302	.05313	.856	-.0926	.1987
	Doctorate	-.10726	.06097	.399	-.2744	.0599
	Other	.12321	.19786	.971	-.4192	.6656
Doctorate	HSC	.41093*	.11190	.003	.1042	.7177
	Graduate	.16028	.06455	.097	-.0167	.3372
	Post Graduate	.10726	.06097	.399	-.0599	.2744
	Other	.23048	.20123	.782	-.3212	.7821
Other	HSC	.18045	.21899	.923	-.4198	.7808
	Graduate	-.07020	.19900	.997	-.6157	.4753
	Post Graduate	-.12321	.19786	.971	-.6656	.4192
	Doctorate	-.23048	.20123	.782	-.7821	.3212

*. The mean difference is significant at the 0.05 level.

Table 4.76 : Comparison table for qualification wise adoption of DT

We can see from the table above that there is a statistically significant difference in qualifications and the adoption of digital technology in aided general colleges. HSC, Post Graduate (p<=0.035) and HSC and Doctorate (p<=0.003). However, there were no differences between the set's Post Graduates and Graduates as well as Doctorates.

For further details, we will investigate the descriptive table mentioned below:

Descriptives

Adoption_Digital_Technology

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
HSC	19	4.2481	.33954	.07790	4.0845	4.4118	3.57	5.00
Graduate	116	4.4988	.44959	.04174	4.4161	4.5815	3.14	5.00
Post Graduate	160	4.5518	.45922	.03630	4.4801	4.6235	2.00	5.00
Doctorate	75	4.6590	.37569	.04338	4.5726	4.7455	3.71	5.00
Other	5	4.4286	.48445	.21665	3.8270	5.0301	3.86	5.00
Total	375	4.5398	.44239	.02285	4.4949	4.5847	2.00	5.00

Table 4.77 : Descriptive analysis for qualification wise adoption of DT

The above table indicates that the staff with doctorate qualifications is more able to adopt the digital technology for the aided general colleges rather than the other qualifications.

The mean plot shows the above discussion graphically.

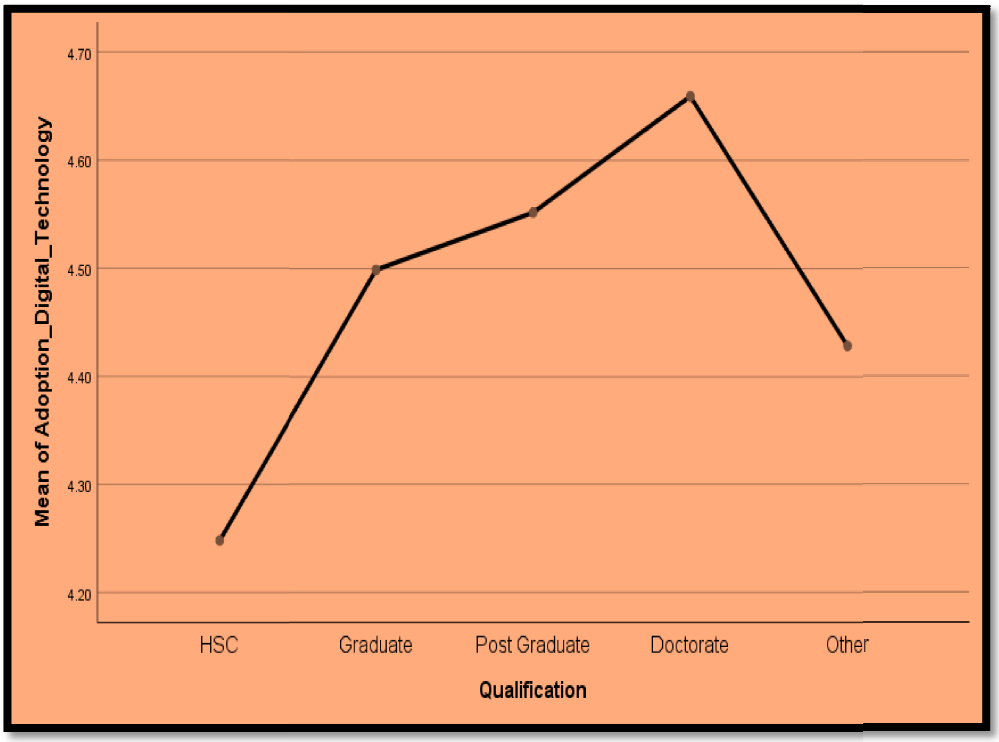


Figure 4.43 Qualification wise adoption of DT

Research Question-7

Whether there is difference in staff perception on the components of digital technology in aided general colleges?

Statistical Test: Friedman Test

Hypothesis-7

H0: There is no difference in staff perception on the components of digital technology in aided general colleges.

H1: There is difference in staff perception on the components of digital technology in aided general colleges.

Level of Significance: 0.05

Test Statistics:

Test Statistics[a]

N	375
Chi-Square	128.258
df	5
Asymp. Sig.	.000

a. Friedman Test

Table 4.78 : Perception of the staff for various components of DT

Observation: $\chi 2(5) = 128.258, p<0.05$.

From the above test statistics, we can say that there was an overall statistically significant difference between the mean ranks and the different components perceived by the staff of aided general colleges. To understand the ranks in detail we will follow the table given below:

Ranks

	Mean Rank
Adoption_Digital_Technology	4.22
Records_Maintenance_Digital_Technology	3.62
Service_Quality_Digital_Technology	3.68
Operations_Management_Digital_Technology	2.98
Data_Management_Digital_Technology	3.27
System_Fairness_Digital_Technology	3.24

Table 4.79 : Difference in the components of DT perceived by staff

From the above ranks table we can see that there is a difference in the groups or components of digital technology perceived by the staff. Hence we can say that adoption of digital technology perceived by staff as having higher rank means perceived highly positive whereas the least one is operation management aspect using digital technology which is not so positively perceived considering the mean ranks.

CHAPTER 5
CONCLUSIONS AND RECOMMENDATIONS

This chapter deals with conclusions and recommendations, which are based on the earlier chapter of data analysis and interpretation. The conclusions are summarised, which are based on the perception of the respondents and on the statistical analysis of primary data obtained from the respondents. Hypothesis testing was done on the basis of data analysis. The recommendation is based on the findings of the study and its conclusions. The data analysis and interpretation of this study enables the researcher to conclude the entire study in a concise manner.

5.1 CONCLUSIONS :

For Principal, Teaching and Administrative staff (Class II and Class III):

It has been observed that the majority of colleges were established after independence, i.e., from 1951 to 1990, as a result of the government's effort to provide education to everyone, investment in the education sector, and emphasis on education as a major factor of socioeconomic development.

The data concludes that most respondents have high productivity and enough understanding. Most of the respondents are from the age group of 25 to 55 and are qualified also. They are 83.4%, which are considered to be mature and have good working experience in general aided colleges. The data was collected from a total of 375 respondents. 93.4% of respondents are qualified and have acquired a minimum graduate degree. It is observed that educational qualifications play a vital role in the adaption of digital technology. It is also noticed that teaching staff have shown more interest in the adoption of digital technology than the administrative staff. As the teaching staff is more educated than the administrative staff, they grasp digital technology much better than the others.

Though the staff acknowledges the importance of digital technology, it is observed that 23.7% staff are still not sure that whether students can understand and acknowledge through digital platform. 361 respondents accepted that regular training

is a must to update digital knowledge. Similarly 369 respondents felt that upgradation of software is must. It was confirmed by the majority of the respondents that technical support creates awareness of digital administration among the staff. It was also concluded that digital administration is not possible without strong internet band width.

The mean of responses is 4.3 and 91.7% of respondents strongly agree or agree that administrative services are improved as a result of digital administration. It is concluded that administrative services are improved as a result of digital administration. Similarly, 80.3% of employees believe that financial operations on a digital platform are secure.

Change of mindset is the main factor while adopting digital technology. All the stakeholders of the colleges need to change their mindset for adopting the latest technology which benefits in the long run. The Authority's motivation encourages the staff and requires them to create an awareness of digital administration acceptance as 93.9% of respondents strongly agreed and agreed and also the mean of responses is 4.5.

All the components of digital technology are related to each other. The staff are involved in various administrative functions through digital technology, which is useful for maintaining the work in an efficient and transparent manner. It also helps to maintain the quality of the work and manage the work effectively by operating the existing and new data in a fair manner.

Digital technology significantly improves the quality of administrative work and accelerates the work with accuracy. It helps to maintain administrative and academic records. It is revealed that digital records and transactions are more precise and perfect than manual records and transactions.

Following is the consolidated table for the perception of the Staff of aided general colleges.

QUESTIONS	Respondents	Mean	Stand.Dev.	COV
Digital Technology helps to maintain Administrative Records	375	4.6	0.616	13.46
Digital Technology helps to maintain academic records	375	4.6	0.548	11.87
Digital Technology helps to monitor the staff records	375	4.5	0.661	14.78
Digital Technology helps to monitor the student records	375	4.6	0.616	13.38
Digital Technology helps to deal in Litigation related work	375	3.96	0.956	22.96
Digital Technology helps in Government related work	375	4.2	0.871	20.75
Use of Digital Platform is the requirement of College administration	375	4.5	0.668	14.71
Digital Technology provides better communication platform for College Administration	375	4.4	0.705	16.03
Digital Technology improves the communication between students and college administration	375	4.2	0.802	18.96
Digital Technology is useful for Admissions, examination and other administrative work.	375	4.4	0.706	15.90
Students understand well and also acknowledge the communication through Digital Technology	375	3.9	0.938	24.05
Digital administration is beneficial to the various stakeholders	375	4.2	0.785	18.71
Overall monitoring of college functions has become easy due to digital technology	375	4.2	0.761	18.03
Change of mindset is required to adopt Digital Technology	375	4.3	0.728	16.83
Regular training program is required to update digital knowledge	375	4.6	0.592	12.92
Upgradation of the administrative software is a must	375	4.6	0.521	11.21
Technical support from the college creates awareness of Digital Administration	375	4.5	0.593	13.10
Strong internet band is the base of Digital Administration	375	4.7	0.551	11.82
Free information on Digital Media creates awareness of digital administration among administrative staff.	375	4.3	0.728	16.94
Awareness of Digital technology is necessary	375	4.6	0.583	12.72
Motivation by the top management is required to create awareness of acceptance of Digital Administration	375	4.5	0.618	13.89

Digital Administration alerts about the data updation and modification in the system	375	4.4	0.640	14.58
Administration aware that Digital technology helps to link up the data and update the record	375	4.4	0.608	13.81
Administrative staff aware that Digital records reduces the storage space	375	4.4	0.685	15.67
Digital administration creates awareness among administrative staff that it has no boundaries of time and place	375	4.3	0.713	16.73
Digital technology saves time of the administrative work	375	4.4	0.727	16.43
Motivation and appreciation by the authority improves efficiency of the college administration	375	4.5	0.641	14.32
Digital Technology helps to maintain transparency in the administrative work	375	4.4	0.706	16.12
Digital technology helps to do seamless work	375	4.3	0.740	17.31
Digital technology improves quality of work	375	4.4	0.704	16.03
Digital Technology maintains accuracy in the administrative work	375	4.3	0.739	17.02
Administrative services are improved due to Digital Administration	375	4.3	0.660	15.18
Administrative work can be speeded up due to Digital Technology	375	4.4	0.621	14.00
Generating financial transactions is safe with Digital Technology	375	4.2	0.796	19.16

Table 5.1 Perception of the Principals and staff

The research study's key factors are adoption of digital technology, records maintenance through digital technology, quality service delivery through digital technology, operations management through digital technology, data management through digital technology and a transparent administrative system through digital technology.

The teaching staff's level of adoption of digital technology is greater than the administrative staff. The mean of responses from teaching staff is 4.59 whereas mean of responses from administrative staff is 4.47. This is because teaching staff is more involved in the teaching and learning process and their interaction with the students on a digital platform is greater than the administrative staff. As the teaching staff is more educated, they grasp digital technology much better than the others. It is

observed by the researcher that the Teaching staff in General Education, Degree Colleges is better and highly qualified. By nature of their appointment to the post of teaching staff, they are expected to further advance their knowledge as well as qualifications. Hence, they are better in Techno-use in administration.

All aspects of digital technology in aided general colleges are correlated. The Staff of aided general colleges are involved in various administrative functions through digital technology, which is useful for maintaining the work in an efficient and transparent manner. Digital records and transactions are found to be more perfect and precise than manual records and transactions. It also helps to maintain the quality of the work and manage the work effectively by operating the existing and new data in a fair manner. Digital technology significantly improves the quality of administrative work and accelerates the work with accuracy. It helps to maintain administrative and academic records. Once the digital technology is adopted by the staff, it becomes easy to maintain records on digital platform, easy to provide quality services, easy to operate and manage the data and easy to keep fairness in the system. Every component is closely related to each other.

Adoption of digital technology in aided general colleges is also related to staff qualifications. It is observed that educational qualifications play a vital role in the adoption of digital technology. It was noticed that qualified employees are capable of implementing digital administration. Staff with a doctorate qualification are more technologically savvy than those with an HSC pass. From multiple comparison table, it is concluded that in general aided colleges, there is a substantial distinction in the qualifications of HSC with Graduates / post graduates and digital technology adoption. Whereas there is no difference in the opinions between post graduate and graduate respondents. In terms of qualifications also, the teaching staff is at the higher level than the administrative staff in any educational institution. Obviously, their understanding , their usage of library resources and even further, the application of such knowledge by way of writing research papers, participation in seminars and conference is much more than the administrative staff. The basic requirement of Administrative staff is to compile the administrative data, manipulate the same in such a manner to assist efficiently to the top management and the Principal of the college. It is therefore obvious that, barring few exceptions , the basic qualifications

of Administrative staff are pure graduation or post graduation only. Further, the skill-set that is required by such administrative staff is also quite different than the teaching staff. Therefore, both by qualifications as well as the posts, the teaching and administrative staff have basic difference in the use of Technology in administration of a General Degree Education College.

Staff perceptions of the multiple elements of digital administration differ. Staff interpret various aspects of digital technology differently. The staff of aided general colleges is interested in adopting digital technology, but the aspect of operation management via digital platforms is ranked low. It is concluded that adoption of digital technology is perceived by staff as having the highest rank, meaning viewed highly positively, whereas the lowest one is the operation management aspect of using digital technology, which is not so favourably viewed when compared to the mean ranks. It means the perception of the staff is not clear or the staff is not sure about the data management and operation management in digital administration. Similarly the fairness of digital administration is also ranked low when it is compared with the adoption of digital technology.

For Students :

The respondents from the group of students study years of first, second and third year as well as postgraduate students, where 46.5% are from third year and postgraduate level, are considered to be matured and have good grasping capacity. When the students are asked whether they understand administrative communication through digital technology, only 64.8% show a positive response to the said issue. They express that more awareness is necessary to spread the usage of digital technology in college administration.

They also agree that motivation given by the staff plays an important role in spreading the importance of digital technology. It is also concluded that using the right software greatly assists students in dealing on digital platform.

Nowadays, mobile is the most important tool in everyone's life. The students feel that mobile applications are the easiest way to operate digital administration. Students

strongly conclude that digital technology saves time as it is anytime and anywhere accessible.

Although it is a common knowledge that digital technology aids in many aspects of college life, only 79.6% of students believe it is useful in all administrative work and 60.03% believe it is the best way to communicate with the faculty. Through the responses, it is noted that the overall study shows the COV is less than one-third or 33% and there is less disparity in the data collected from the respondents.

Following is the consolidated table for the perception of the students of general aided colleges.

QUESTIONS	Respondents	Mean	Stand. Dev.	COV
Digital technology helps students to interact with the faculty and administrative staff	708	3.9	0.948	24.49
Students understand better, the administrative communication through Digital Technology	708	3.5	1.092	31.1
More Awareness of use of Digital Technology among the students is necessary	708	4.2	0.902	22.12
Motivation given by the college staff intiates the students to use the digital technology	708	3.9	0.879	22.56
Use of best Software helps the students to deal with Digital Administration	708	4.2	0.842	20.28
For Digital Administration use of Mobile application is easy way to operate	708	4.1	0.903	22.09
Digital technology saves time	708	4.3	0.82	19.03
Digital administration is anytime accessible	708	4.1	0.877	21.37
Online payment is easy and a safe mode for payment of fees	708	4	0.966	24.09
College staff is easily approachable due to Digital Technology	708	3.8	0.965	25.66
Training about the use of Digital platform used in the college is necessary	708	4.1	0.891	21.95

Students understand well and also acknowledge the communication through Digital Technology	708	3.6	1.081	29.62
Digital administration is convenient	708	4.1	0.871	21.14

Table 5.2 : Perception of the students

With respect to students, the research study's key factors are usability of digital technology, efficiency while using digital technology, and students' communication with administration while using digital technology.

The usage of digital technology by students has an impact on the effectiveness of digital technology in aided general colleges. They are correlated with each other. If the students use the digital platform in a precise manner, it will have a positive effect on the efficiency of digital administration in general aided colleges. Though the colleges use a good software for digital administration yet the customer, i.e., students, have failed to use the same in a proper manner, which will ultimately affect the efficiency of the student and the college too. It is the responsibility of the authorities to create awareness among the students, give training and provide user-friendly software.

It is observed that there is a difference in the leveraging of digital technology to communicate with the staff in the different study groups of the students. There is a difference in the understanding level of digital technology in the different study years of the students in the general aided colleges. As regards the students, the researcher has taken into consideration all the three levels of students of aided general degree college - belonging to the First Year , Second Year and Third Year students. The researcher has observed that the First Year students are newcomers to the collegiate education and the entire administrative system. So they are found to be less techno savvy. By the time they come to the Second Year they are found more mature and using the technology in administration. However , the final year students i.e. the Third Year students are most mature and using the technology better than their juniors. Third-year students are using digital technology in a more appropriate way as compared to first- and second-year students, since they are more mature and more knowledgeable. They handle the digital platform in a more effective manner and also expand the opportunities to interact with staff for the administrative work. The digital

platform greatly improves communication between learners and the administration of the college, with 60.3% of students feeling that digital technology helps to improve communication within the administrative scale.

There is a significant difference in how students from various programs use digital technology to interact and communicate with their specific faculty members and administrative personnel. The researcher has also taken a cross section of students belonging to the Arts Commerce and Science faculty of their education. Students from the Faculty of Arts are better prepared to use digital technology to examine possibilities for communication and interaction with college administrative staff and faculty members. The descriptive analysis shows that 3.93 is the highest mean in student communication with the college administration. The comparison table shows that there is no significant difference in the use of digital technology for communication with staff between the groups that studied with science and commerce specialisations. Study of Arts is more related to literature compared to other specialization, so the communication skill of Arts students is more precise. Though science students are more techno-savvy, they prefer the offline mode for communicating with the staff. It is observed that science students are more busy, spending more time in the college campus either in the classrooms or in the practical laboratories. Their physical presence in the college is important more than other students. Therefore, the science students have a better advantage of direct interaction with their teachers in classroom or laboratory demonstrators and instructors directly to understand and also to complete the administrative formalities. It has become easy for them to directly communicate with teaching and administrative staff in their working hours. Commerce students use digital technology in a moderate way. On the other hand , the Arts faculty students are engaged in the college campus for a lesser span of time. They need the use of Technology support from time to time. Also it may be said that , the Arts faculty students have different analytical ability of their mind set. They can make use of Digital Technology in administration time and again and better. So they interact with the staff using digital technology. It is concluded that usage of digital technology for communicating with staff by Arts faculty students is more than other streams.

Thus, the researcher has come across the various outcomes out of this research hypothesis.

5.2 RECOMMENDATIONS :

On the basis of research findings and conclusions, the researcher has certain recommendations, which are as follows :

Students are the customers of an educational institution. It is the duty of the college authorities to satisfy the needs of their customers. It is observed through the perception of the students that though digital technology is useful, the students are unaware of the uses and benefits of the proper utilization of digital platforms in college administration. This, in turn, has an impact on the efficiency of digital technology in aided general colleges. To promote digital administration, students' queries should be immediately attended to. The college can develop the helpdesk system by giving phone numbers or email addresses, a chatbot system where the issues related to the usage of digital technology by the students will be solved and the digital efficiency of the students will increase. Similarly, a short video with Standard Operating Procedure (SOP) for every digital function of the college should be highlighted on the college website for students to know the steps while using digital technology. This will have a positive impact on the efficacy of digital technology in general aided colleges due to the positive perception of students regarding the usability of digital technology.

First and second-year students are less mature than third-year students. They are indecisive in using the digital platform, may be due to lack of knowledge, confidence and assistance. In general aided colleges, it is observed that they are reluctant to use digital technology as compared to third-year students. To make first and second year students more comfortable with using digital technology to communicate with staff, the college is required to conduct training sessions for the students and online interaction with them which will boost their confidence. First year is the entry level of the students. Almost all the colleges have conducted an induction programme for them, wherein the college policies are explained to them. In such type of programmes, the process of use of digital technology for communicating with staff can be conveyed and briefed alongwith the advantages of digital administration. Colleges should

develop ‘Quick Response Cell’ which will help the student to register his/her complaints through customer care numbers or helpline numbers and this complaint should be resolved immediately. It will help to build up confidence of the student to use digital technology for administration.

It is necessary to bring all the different program students into the stream of digital technology. Students have the mentality that whenever they are in college, they would like to personally explore the administrative services. When the college enforces the queueless and counterless office systems, it becomes mandatory for all students to use the digital technology for communicating with the staff. The college is required to adhere to a digital administration policy in which students must note that they have to convey their issues on a digital platform only and that no counter services will be available for certain issues. For example, if the fees are collected through online mode, then there should not be any other way to pay the fees on the cash counter of the college. When students get acquainted that there is no other alternative, they automatically switch on to digital technology for any administrative communication. While promoting this, the college has to take utmost care that the queries of the students are solved immediately through online mode of interaction. If the college rewards some points for each online visit to the services on the digital platform, then all students will automatically be attracted to digital administration. The differences in study program groups for using digital technology to communicate with staff will be then reduced.

Administrative staff is required to update their knowledge in respect of digital technology through various training sessions and continuous practice which improves their skills. Introducing a system of daily practice hours can help the staff to learn and adopt digital technology. There is a need to change the mindset for adopting digital technology. Interaction with the students and faculties on digital platforms is necessary to maintain themselves in the process of adoption of digital technology. Motivation and appreciation given by the top authorities also boost the willingness to adopt digital technology. Educational workshops and motivational seminars also boost the morale of the staff. Standard Operating Procedure (SOPs) for digital administration can be maintained for a quick access to the work. Government should decide and implement common ‘Digital Technology Policy’ for all Universities and

all colleges in Maharashtra in order to maintain the standard and quality of digital administration.

Since various factors of digital administration in general aided colleges are related to one another, it is necessary to maintain all the records on a proper server based computer. Regular back up of the data needs to be taken to avoid the risk factor of loss of data. Management of data and operations can be done with the help of technical support. It is necessary to provide a help desk system to attend to the queries of the stakeholders. To maintain fairness in the daily affairs of the college, the authorities take a surprise review of the work done throughout the day and also observe the system of checking the transactions on multiple levels.

It is recommended that the college should educate the administrative staff by encouraging them to update their qualifications. When teachers are updating their educational qualifications, they get the benefit of an additional increment by the government and their pay rises, which does not happen in the case of administrative staff. So it is recommended that the government or the college should encourage them to acquire additional qualifications by giving some incentive benefits. A computer based certificate course can be introduced by the college which is exclusively related to the current digital issues at college level.

The understanding of the staff on the distinct aspect of digital technology can be changed by introducing userfriendly software which will maintain the tempo of working culture. Operation and data management become easy due to continuous technical support, strong bandwidth facilities and other infrastructural facilities to the staff and students. The operation management can be easier by following five simple principles i.e. planning, organizing, staffing, leading and controlling which should be through digital technology. It will become more effective through the active participation by the staff on each stage and innovation suggested by the staff and the authorities in the development process of general aided colleges. This will result into maintaining the quality of operations in digital administration. All the tasks should be managed on a digital platform. An Enterprise resource planning (ERP) based system has to be developed by the college for management of data and maintain transparency in the operation management. This is a type of software used by institutions to manage day-to-day operations which includes all the components of digital

administration. Work will be simple, efficient and productive through digital administration. This will also help to preserve and maintain the record as per the requirement of the college. To avoid fraud in online financial transactions and data manipulation, it is necessary to alert stakeholders by organisaing the seminars related to cyber security . Centralized online admission process for the students at entry level in all degree colleges should be implemented by University and Government. So that transparency and efficiency can be maintained. Standard and Common digital platforms like digital university (MKCL), muonline should be used by all colleges for common academic and administrative tasks to get a similar output of digital administrative work in all the colleges.

5.3 SUGGESSTIONS FROM OTHER LEARNINGS :

In the process of the research on use of digital technology in college administration the researcher has also adopted an interview method. In the process , the researcher has met some office bearers of the higher education department of the Government of Maharashtra

- An officer from the Directorate of Higher Education highlighted the importance of digital technology in the education sector. He has stated that he holds regular meetings at college levels to promote digital administration. According to him, it is easier to have a direct dialogue with all the colleges together, instead of sending government circulars to each and every college in the region. Training programmes are properly conducted and easily worked out for the benefit of both the colleges and the government offices. Such programmes clarify all the doubts by conducting internal discussions for mutual benefits and also develop the confidence of the employees regarding digitalization in administration. He was further interested in preparing and maintaining SOP for the different types of work in college administration, to make it easier for all the stakeholders. According to him, the management of colleges plays an important role in the adoption of digitalization in administration. They should encourage the staff in various ways by providing them with the proper infrastructure, user-friendly software, and most importantly, giving them every support. He further stated that, all the different aspects

regarding salary budget, provident fund payment, legal matters and all other administrative aspects, etc., can be totally taken up in a digitized way of administration. He said that in order to maintain transparency at work, social media platforms play a vital role in explaining the various aspects of digital technology to the staff and cyber security training can be given to the staff and students.

- An officer from the Joint Director's office stated that office automation is the need of the hour. However, he felt that at present, digital technology is not much in use, by the aided sections of the colleges. It is more adopted by the unaided sections of the colleges or unaided colleges. The Director's office also , as yet , has to adapt with the digital technology fully. Some of the work is on digital platform whereas some work is still as per the traditional method. He mentioned that the most important thing is changing of the mind set both at government office level as well as at the College level. Training in digital administration is the most important key factor for the use of technology in the administrative work. There is a need to design a syllabus for the training of the administrative staff about digital administration and other required activities by the education department. There should be a common/ model set of rules of digital administration for all the colleges to implement it as a digital platform of Administration. College management is expected to provide sufficient and up to the mark infrastructure necessary for adapting digital technology in the college administration. He noted that through ISO certification, NAAC processing the college can step forward towards adapting of the digital technology in college administration. Digitalization will save time , reduce duplication of work and maintain transparency of every work.

- Yet another important step of development in college administration is the adopting of the software developed by MKCL. In the area of Mumbai

Region colleges the MKCL software is most popular in use for various administrative works which is related to the University of Mumbai. The researcher, therefore thought it fit , to enquire about MKCL's approach regarding the software for college administration. A set of lead questions was given to the MKCL official to open the dialogue on digitalization of administration. In the process of discussion with the MKCL official , the researcher has observed a very positive attitude of MKCL towards digitalization of college administration. MKCL has not only developed the readymade packages on digital administration but have also opened helpdesks for solving the issues of the end users of the MKCL packages and now is in the process to develop chatbot facility for the users. He said that not only is training required for desired output in digitalization of administration , but is just a matter of time that all employees in the college administration will surely adapt with the software technology. MKCL digitalization effort for each data is expected to be interlinked, such that the duplication of work is minimised. He mentioned that full automation of college office is possible which will result into Queless and paperless office. He also suggested that, for making the college administration streamlined, uniform platform and uniform software has to be adopted. When asked about the use of QR code for input of the initial record from the students, he said that it can be worked out by following proper procedure and will be very useful. In short, MKCL officials are very much confident about the use of digitalization of college administration and the fast speed with accurate recording of all the college administration work.

5.4 CONTRIBUTION OF THE RESEARCH

The current study's findings contribute to the existing administrative framework of Mumbai's general aided colleges. It has contributed to a reliable model for analysing the steps and impact of various digital administrative factors. Future researchers will be able to analyse the same in a variety of research contexts or additional variables can be introduced to the same to assess the effects of other related factors.

The College authorities play a key role in the process of digital administration. It is not possible to adopt digital technology in the college administration without the necessary motivational and infrastructural support from the college authorities. To change the approach of the staff and students towards digitalization, the first step is to change the mindset by conducting various awareness programmes. To make the college fully digitalized the following steps are required to be followed.

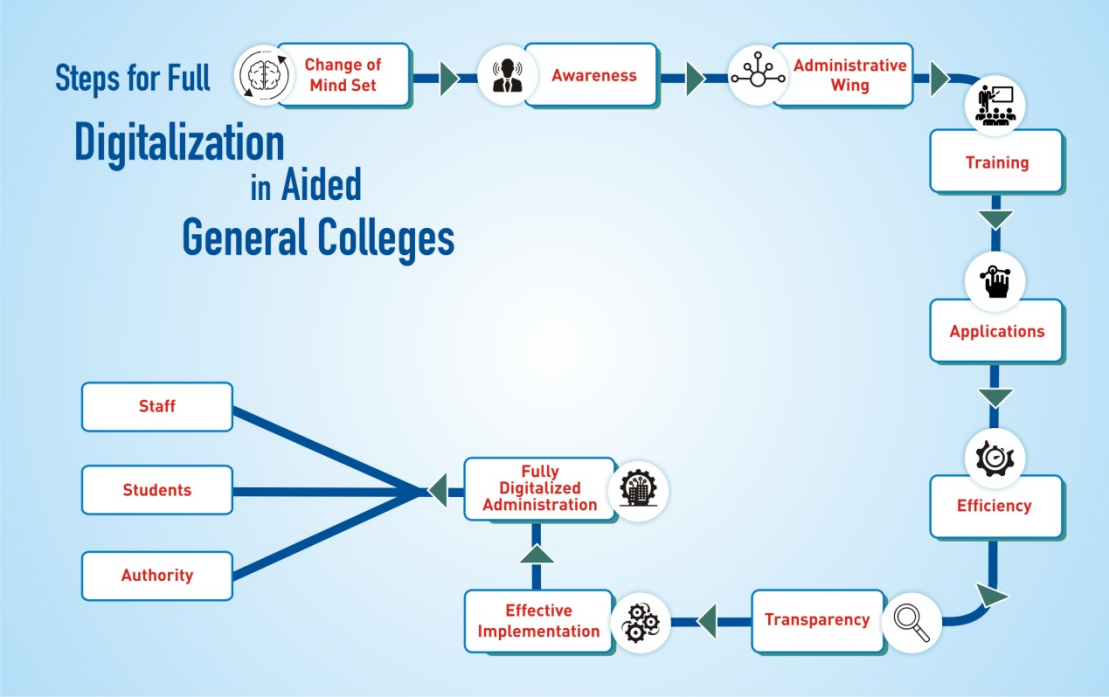


Figure 5.1 Step by step process for entire digitalization in Aided General Colleges

5.5 SCOPE OF FUTURE RESEARCH

Based on the findings of the present research, the researcher has suggestions for the future researchers who wish to study in the same area of digitalization in Higher Education Institutions.

- Similar study can be conducted in general aided colleges of other regions of Maharashtra.
- Similar study can be conducted for unaided colleges.
- A comparitive study of digital administration in Universities and colleges can be conducted to follow the apt steps which will help to constitute the common administrative polices on digital platform in all the Higher Educational Institutions.

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QUESTIONNAIRE for Principal, Teaching and Administrative Staff (Class II and Class III)

Name of the college :

Year of establishment :

Faculty :

Post held : Principal : Teaching staff : Administrative Staff :

Age Group : 18 to 25: 25 to 40 : 40 to 55 : 55 and above :

Qualification : HSC : Graduate: PG: Doctorate : Other :

Experience (in years) :

Each statement is followed by five alternatives reponses viz : (5) Strongly agree (4) Agree (3) Neutral (2) Disagree (1) Strongly disagree

Please tick mark (√) the correct option in your views.

SR.NO.	QUESTIONS	OPINION				
		5	4	3	2	1
1	Digital Technology helps to maintain Administrative Records (accounts related, government related, management related)					
2	Digital Technology helps to maintain academic records (attendance, academic presentation, student's feedback)					
3	Digital Technology helps to monitor the staff records (attendance, leave records, appraisal)					
4	Digital Technology helps to monitor the students records (fees, scholarships, notices)					
5	Digital Technology helps to deal in Litigation related work (employee disputes, government disputes)					
6	Digital Technology helps in Government related work (appointment, approvals, promotions, CAS)					
7	Use of Digital Platform is the requirement of College administration.					
8	Digital Technology provides better communication platform for College Administration					
9	Digital Technology improves the communication between students and college administration					
10	Digital Technology is useful for Admissions, examination and other administrative work.					
11	Students understand well and also acknowledge the communication through Digital Technology					
12	Digital administration is beneficial to the various stakeholders					

13	Overall monitoring of college functions has become easy due to digital technology					
14	Change of mindset is require to adopt the Digital Technology					
15	Regular training program is required to update the digital knowledge					
16	Upgradation of the administrative software is a must					
17	Technical support from the college creates awareness of Digital Administration					
18	Strong internet band is the base of Digital Administration					
19	Digital Media Technology helps to improve the awareness of digital administration in administrative staff					
20	Awareness of Digital technology is necessary					
21	Motivation by the top management is require to creat awareness of acceptance of Digital Administration					
22	Digital Administration alerts about the data updation and modification in the system					
23	Administraion awares that Digital technology helps to link up the data and update the record					
24	Administrative staff awares that Digital records reduces the storage space					
25	Digital administration creates awareness among administrative staff that it has no boundaries of time and place					
26	Digital technology saves time of the administrative work					
27	Digital Administration is Convinient					
28	Motivation and appreciation by the authority improves efficiency of the college administration					
29	Digital Technology helps to maintain transperancy in the administrative work					
30	Digital technology helps to do seamless work					
31	Digital technology improves communication and productivity of the college administrative staff					
32	Training to the staff and students improves efficiency of college administration					
33	Digital technology improves quality of work					
34	Digital Technology maintains accuracy in the administrative work					

35	Addministrative services are improved due to Digital Administration					
36	Administrative work can be speed up due to digital technology					
37	Generating financial transactions is safe with Digital Technology					
38	Digital records and transactions are perfect and precise than the mannual records and transactions					

QUESTIONNAIRE for Students

Name of the College :

Class : FY : SY: TY:

Each statement is followed by five alternatives reponses viz : (5) Strongly agree (4) Agree (3) Neutral (2) Disagree (1) Strongly disagree

Please tick mark (√) the correct option in your views.

SR.NO.	QUESTIONS	OPINION				
		5	4	3	2	1
1	Digital technology helps students to interact with the faculty and administrative staff					
2	Students understand better, the administrative communication through Digital Technology					
3	More Awareness of use of Digital Technology among the students is necessary					
4	Motivation given by the college staff intiates the students to use the digital technolgoy					
5	Use of best Software helps the students to deal with Digital Administration					
6	For Digital Administration use of Mobile application is easy way to operate.					
7	Digital technology saves the time					
8	Digital administration is anytime accessible					
9	Online payment is easy and safe mode for payment of fees					
10	College staff are easily approachable due to Digital Technology					
11	Training about the use of Digital platform used in the college is necessary.					
12	Students understand well and also acknowledge the communication through Digital Technology					
13	Digital Technology is useful for Admissions, examination and other administrative work.					
14	Digital administration is convenient					