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DIGITALIZATION IN INDIA :
THE WAY TO KNOWLEDGE ECONOMY

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Co Editor:
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It has been a herculean task to invite, collect and edit the various research papers related to the vast area of Digitalization. We have taken up this task to get published these research papers in UGC Approved Research Journal. We are highly thankful to Mr.Vishal Mittal, Anu Publications, Meerut (U.P.) who gave his consent to publish these papers as a special edition on **"Digitalization In India : The Way To Knowledge Economy"** in his reputed, peer-reviewed and UGC approved research journal SHODHMANTHAN. We highly thank & appreciate the work of Anu Publications, Meerut.

Sahu Jain (PG) College Najibabad is located on NH 74 (Kotwali-Kotdwar Road) in District Bijnor of U.P. It was established in 1966 by Late Sahu Shri Shanti Prasad Jain under the management of S.P. Jain Foundation. Presently the college is affiliated to Mahatma Jyotiba Phule Rohilkhand University Bareilly. For the last five decades, the college is imparting knowledge in different subjects of Arts, Science and Commerce faculties for both undergraduate and postgraduate students. The consistent and efficient curricular and co-curricular activities of the college have made it a well known college among all the aided colleges of U.P.

We are highly grateful to our patron Mr. Dharmesh Pareek, Manager,Sahu Jain (P.G.) College, Najibabad for his kind assent to carry on these types of academic activities. His motivational blessings and kind support is always there for Sahu Jain Family for knowledge enrichment.

We are lacking the words to thank our Principal Dr. Vidhu. This task would have been impossible without her inspiration and support. We are also thankful to Principal Madam for her valuable time she devoted with us to finalise all these activities.

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Thanks everybody.

Dr. Abhai Kumar Mital (Editor)

Dr. Manish Kumar Gupta (Co-editor)

PREFACE

Digital India programme was launched by the government of India on 1st July 2015 with a vision to convert India into a digitally empowered society and knowledge economy. The focus area of this campaign was to provide; a strong digital infrastructure to every citizen of India, Good e-Governance & e-Services, and to make citizen digitally empowered. Digitalization is representing India before the world as a Nation with greater transparency, effective Service Delivery in efficient way and good e-governance.

Digitalization is the demand of modern era of LPG and ICT and also a necessity to compete in the modern world. Further it is also required to promote digitalization in rural, backward and middle & lower caste. Further Indian Digitalization is needed to be heavily secured from cyber criminals.

With a clear vision, the present government is pushing ahead the Digital India initiative to transform the country into a digitally empowered society and a knowledge economy. With the launch of this initiative, the government aims to reach out to citizens in the remotest of locations and make them a part of India's growth story. Since technology is a key driver in causing disruptive change, digital tools will empower citizens and prove to be a game-changer.

A successful knowledge economy is characterized by close links between science and technology, greater importance placed on innovation for economic growth and competitiveness, increased significance of education, and lifelong learning and greater investment in intangibles such as R&D, software, and education. Investing in the knowledge economy means investing in strategies that will bring about significant changes in the way a country can grow. The application of knowledge is manifested in all areas such as entrepreneurship, innovation, R&D, and people's education and skill levels is now recognized as one of the key sources of growth and competitiveness in the global economy. The knowledge economy does not only signify high technology or information and communication technology (ICTs), but how well economies are using appropriate knowledge to improve their productivity and increase welfare.

Keeping in view the importance of this topic our college has decided to get a Research Journal published on the topic "Digitalization in India: The way to Knowledge Economy" .

We are overwhelmed to see the response of the contributors towards this journal as reflected through their papers and articles. We have collected a huge ocean of thoughts on the theme of this special edition of Journal. We are happy that through these papers, various aspects related to Digitalization and Knowledge economy have been discussed through.

During this course, despite all the possible efforts, some errors must have crept inside, please ignore. Thanks everybody.

Dr. Abhai Kumar Mital (Editor)

Dr. Manish Kumar Gupta (Co-editor)

CONTENT

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TECHNOLOGY AND MUSIC – AN UNUSUAL COUPLE

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The advances in technology in the last few decades have been revolutionary and mind boggling. The way we interact with our surroundings, people and the world altogether has changed significantly. Can you even imagine a life without Facebook, WhatsApp, YouTube, Google, Instagram, Amazon, to say the least? Well, the music industry has been no different. And if you are thinking now that it is the same old music, songs just being played on new and fancy instruments you couldn't be more wrong. From the way the music is made, produced, and distributed – in every leg technology has given new wings to music industry.

Technology in fact influenced the world of music around 40,000 years ago when the first bone flute was found, but it is around 20th century that technology defined the music industry as we know today. We've moved gradually from the good old phonograph invented by Edison to cassettes, CDs, MP3, Napster, iPods, YouTube, Spotify, Live music streaming and now Blockchain. Technology gives you an opportunity to collaborate with someone halfway across the globe and create an amazing mash up of culture, music style, genre etc. Creating new sounds, generating new feelings, reaching new audience – is now easily possible World is truly a musician's oyster now.

When you log on to YouTube to listen to the remix of "**Jai Ho by A.R. Rahman**" – created by "**Pussycat Dolls**" or put on iPods to hear our very own "**Sunidhi Chauhan**" singing the Hindi version of "**Heartbeat by Enrique Iglesias**" you are becoming the true global citizen, consuming the music empowered by technology.

The advances in technology like never are changing the way music is produced, distributed and accessed. The digitization of music, making it readable by computers has changed the dynamics of the music industry substantially. Let's dive a little deeper into some of the top technologies changing the face of music as we know today.

Technology in Music Creation

Music production, right from better instruments to recording process and newer sounds, has seen phenomenal technological improvement. **Electric guitar** gave birth to louder string sounds using electricity and combined with **effect pedals,** they have given the musicians the liberty to create any sound that they like. **Looper Apps** allow an artist to experiment with textured sounds, while software like **Auto tune** have made it possible to deliver the pitch perfect performance every single time. Sound recording was one of the most critical tasks few decades ago. The song was to be recorded in a single take with all the musical instruments in perfect sync. Our popular singers from the melodious 90s still remember the long nights they had put in to get the perfect recording. Technology on the other hand has changed this process completely. **Multi-track recording**, when was launched in mid-50's, allowed musicians to record music in several parts instead of one single take. And just like that, the music industry was never the same again.Our music directors now record a 4-minute song in tiny bits and

pieces and the editor does his/her job – stitching together all the sounds. Finally, we have a seamless but more complex music track ready at our disposal. This contribution of technology has changed the industry dynamics both for Singers and Musicians.

Softwares like Garageband allow a regular person to record music anytime from his home, and MIDI (Musical instrument development interface) enables the electronic instruments and tools to communicate with each other smoothly thus keeping the cost of music production to the minimum.Not long were the days when people gave it their all to get a song recorded in a studio. Today we can record a song by sitting in our room using a laptop and a decent microphone. The advent of technology has made it possible for a common man to now showcase his/her talent. Since the music is now readable by the computers; it can also be modified or even created from scratch on that machine. Similarly, it is no longer a requirement to have a whole orchestra set up to make a song seem grand, you can do that using a software that gives you excess to virtual musical instruments.

It would be almost a crime to not mention the birth of DJs who mix ordinary songs with extraordinary music to create fresh outlook on tracks – all by using latest technology. While these were once frowned upon, legends like David Guetta, Avicii, Martin Garrix are now worshipped by music fans all over the world.

Technology in Music Distribution

It was almost the start of 1950s when television brought music into vivid visual reality, and musicians & artists became household names. People were able to see movies, shows like "Chitrahar" and "Rangoli" became house hold names, singers like "Lata Mangeshkar", "Kishore Kumar", "M.Rafi" became much more popular; and music got a new way of distribution. Today digital streaming services such as Spotify (with revenues of over $5billlion), Sound cloud, Apple Music and YouTube allow musicians to upload music just by click of a button without the need of a distributer, thus enabling them to promote themselves. There are numerous examples of people who started their musical career using the online websites that let you upload, listen and share music. These people are now celebrities and have even made their mark on the mainstream industry as well. AI Start-ups like AI Music created an app which can collaborates with users, responding to input and offering help with melodies or structure.

Technology in Music Consumption

The contribution of technology to music is as much on the consumer side and it is on the production side. The days when one had to take a long walk to a music shop to look for the latest or favourite song are long gone. In order enhance the user experience, we have various online platforms that provide us with the music that we wish to listen to, numerous gadgets that add to the experience of listening to a song. Today we have 3D sounds in the songs to make it more immersive for the listener. Steve Jobs' bright idea for a sleek, simple mp3 player played an important and symbiotic role in the growth of the MP3 and file sharing. Now that everything ranging from fundraising to distribution is possible without intermediaries, blockchain and apps like SingularDTV may just rewrite the rule book on the music industry.

From the big headsets to wireless earpieces, we have now moved on to wireless devices to fulfil our need of listening to music on the go. The latest video chat technology supplemented by high internet

speed has impacted the way students learn how to sing or play musical instruments. True that many students would still prefer in-person lessons, video chat lessons are helpful as one they take away the commute time needed to travel to a lesson and two for the students in far reach areas without the access to good teacher would still find a great tutor online.

But is it all hunky dory, or are we overlooking some of the negatives the technology inevitable brought with it? The music industry's profits have fallen by over 70% in the last 20 years, and you probably already know why. The non-digitized music as recorded in Cassettes and polyvinyl chloride (aka vinyl), was hard to steal. Artists are now earning less from their music- a battle that has changed the landscape of the music industry. But once it is available freely on YouTube and pirated heavily on torrent sites, gaining ownership of plethora of music is almost as cheap as a monthly phone bill. Not just this, listeners now over spoilt with choices are much less loyal. Switching costs to a new artist are low, and thus artists face much fiercer competition with a pressure of keeping up with the changing tastes of the masses.

To conclude, technology has changed the world and has been making it a better place and so has music. These two are a great couple and can co-exist in a beautiful manner but need to be dealt carefully. The nightmares like piracy and stealing music must be strictly dealt with, while the newer technologies need to be embraced to ensure that music reaches the zenith, it is supposed to.

And if we try to understand future of technology in music, here is what Co-founder of SoundCloud - Eric Wahlforss in his interview with Wired Magazine said "**Mobile is going to be the key growth area in music over the next ten years, for production as well as consumption. The ease of use of many modern tools has lowered the barrier for entry, which may have been prohibitive to aspiring musicians not so long ago. The social web has also changed the way music is promoted and consumed. Creators can discover fans, interact with like-minded people and collaborate on new projects."**

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LEARNING TECHNOLOGY EFFECTIVENESS IN PRIMARY, SECONDARY AND HIGHER EDUCATION

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Introduction

Student access to technology is no longer a privilege: it is a prerequisite for full participation in high-quality education opportunities. Increasingly, important learning resources used by students and teachers are digital, making access to the Internet as basic as access to a library. Technology access also enables students to find and enroll in educational opportunities, such as summer enrichment programs and college scholarship programs, and is increasingly fundamental for participation in college itself. Modern technology tools that enable design, media production, self-expression, research, analysis, communication, collaboration, and computer programming are commonplace in various professions and disciplines, and facility with these tools is an essential part of becoming ready for college and careers. Interacting with digital learning environments that support the development of deeper learning skills such as problem solving, critical thinking, and inquiry is also crucial. Furthermore, goals for improved educational achievement and increased participation in science, technology, engineering, and mathematics (STEM) learning and careers will not be reached without the integral use of technology. Certainly, students without access to technology-based environments and opportunities will be tremendously disadvantaged in efforts to organize and plan their intellectual pursuits and achieve in academic endeavors. Consequently, policy makers should not need experimental tests of the effects of broadband Internet access to be convinced it is important. Broadband access today is as integral to education as books and pencils have been in the past. It is part of the basic infrastructure and a prerequisite to full participation in public education. While this fundamental right to technology access for learning is nonnegotiable, it is also just the first step to equitable learning opportunities. We must continue to ask questions about the effectiveness of technology-based learning systems and tools designed to promote academic learning in specific subjects. This brief suggests that the question "Does technology improve student learning?" is not the right one to ask, since learning technology effectiveness—like the effectiveness of many other classroom tools—depends on how a particular technology supported intervention is designed and how it is implemented by teachers and students. Instead, we look at the types of learning technology uses that have been shown by research to tie to deeper student learning, the conditions under which these approaches can reach their educational potential and how to identify those that are worth the investment.

What research tells us about learning Any approach to improving learning—with or without technology—is more likely to succeed if it is informed by the decades of research in the learning sciences.(1,2)Therefore, to answer 4 questions about the effectiveness of technology for learning, we begin with the characteristics of learning environments that support strong learning outcomes, whether on- or off-line. We then examine the ways that technology can be used to provide these features that support learning. According to research, learning is enhanced when students are engaged in the following

strategies. Building on their prior understandings and actively driving their own learning. Traditional classroom instruction treats "learning" as a process of acquiring content, either from teachers or from textbooks. Learning research, on the other hand, demonstrates that learning is an active process of integration, with new information interpreted through the lens of prior experiences and conceptions. (3,4,5) The ideas that students bring with them into the classroom are often based on students' interpretations of their experiences in the everyday world, which may or may not be consistent with the normative disciplinary content they are asked to learn in school. For example, very young children understand that animals are living things, while objects such as rocks are not. Because of this understanding, they expect the insides of an animal to have an organization while the inside of a rock will be random. (6) But many young children also believe that all living organisms are capable of self-initiated movement, since this is an easily observable difference between dogs and rocks. As a consequence, they often do not recognize plants as part of the category of living things. (7) Intuitive but incorrect ideas such as these can make it more difficult for students to understand and retain scientific descriptions and explanations. Effective learning environments elicit students' intuitive ideas and related experiences while providing new experiences that cause them to question those ideas, helping them to understand that there may be common situations they aren't yet able to explain. This can set the stage for students to use new knowledge to reorganize and modify their existing ideas, creating increasingly productive mental models. (8,9,10)Technology can support this process by asking students to reason about many different situations and using each student's responses to diagnose the set of ideas that a student holds. (11) Technology can then provide students with counterexamples and contrasting arguments for naive ideas that do not correspond to experts' understanding of the concept. (12,13)In addition to providing tailored examples or hints, technology-based learning systems can support the personalization of the student learning experience by analyzing students' performance on recent tasks and suggesting learning activities, resources, or approaches matched to each student's profile of skills and competencies. Appropriately executed, this tailoring process has been shown to lead to increases in student learning. (14,5)In addition to adapting instruction to the particular academic progress of each student, technology can also support differing student capacities, opening learning opportunities to students with disabilities and others who have traditionally been excluded. For example, technology is particularly adept at providing the range of representations, means of engagement, and opportunities for expression that are essential to universal designs for learning, (15)enabling designs that are more flexible and effective for all students. Developing connected knowledge, not just learning isolated facts. In today's fast-paced and competitive economy, workplaces demand that individuals and teams are able to apply their knowledge to new situations, (16,17) solving complex problems involving rapidly emerging topics and communicating the nature and logic of their work. Learning sciences research suggests that for these purposes, strictly factual knowledge is not sufficient. Instead, application of knowledge to novel problems relies on conceptual understanding in the form of higher-level principles and recognized patterns that can be transferred to new situations. (18)

Methodology and Method

Technology can enable better learning when (a) it provides a unique, new capability that supports human learning processes and (b) interventions are designed to embed that capability within an integrated system that provides the supports students and their teachers need to enact the learning

within the curriculum. A complete learning system includes factors such as the following, in addition to the technology itself: • Physical arrangements of the environment as well as the students to allow a mix of individual, small group, and large group work. • Curriculum and specification of learning progressions. • Pedagogy appropriate for the content to be learned. • Professional development, coaching, and mentoring around pedagogy and content knowledge for teaching. • Aligned assessments and ways to use them to adapt instruction. • School leadership and professional culture. Attention to all of these parts of the system will enable the most successful use of technology to support teaching and learning. Meta-analyses of Learning Technology Outcomes Meta-analysis is an analytic technique that allows researchers to look across multiple studies to compute an estimate of the size of the average effect, even if the individual studies look at different interventions that are implemented in different system contexts and use different outcome measures. Because meta-analysis is based on the existing body of research, meta-analyses of learning technology studies necessarily draw on studies of less current learning technology applications, in systems that do not always include aligned assessments and supports for teachers. Nevertheless, most meta-analyses of studies measuring the effects of technology-based learning in comparison to conventional educational practice have found that on average technologies enhance learning, albeit less dramatically than in the newer studies of carefully implemented technologies highlighted above. For example: A meta-analysis of educational technology applications for mathematics that included 74 qualifying studies and a total of 56,886 students found a small but positive overall effect (ES = 0.16) of mathematics technologies on measures of math achievement. A meta-analysis of middle- and high-school reading programs, including programs that did and did not incorporate technology and those that did and did not focus on changes to the teachers' instructional process (such as professional development toward cooperative learning), found that the mean effect across 9 studies of programs that incorporated both technology and support for instructional change (ES = 0.22) was greater than the mean effect of programs that focused on either technology or instructional change alone. A second-order meta-analysis of studies of a variety of types of learning technologies, including 25 meta-analyses that encompassed 1,055 primary studies, found a strong overall positive effect (ES = 0.33) for classrooms that used technology compared to their face-to-face counterparts.

Conclusion

Technology is not a silver bullet and cannot by itself produce the benefits we seek in learning, but without technology, schools and colleges have little chance of rising to 21st-century expectations. Syntheses of best available evidence consistently indicate the potential for positive effects when technology is a key ingredient in well-designed learning systems. Smart policy will both ensure equality of access to technology and also encourage uses of that technology that focus on specific connections to learning processes and address all the factors in complete learning systems. Smart research and development investment will be in learning systems that include technology applications as well as the conditions that support students and teachers to use them effectively toward strong learning.

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DIRECT BENEFIT TRANSFERS: A DIGITALISED PERSPECTIVE

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Introduction

The paper is build in the light of digitalization with a specific reference to direct benefit transfers. Indian economy has seen wide spread changes since the 1991 economic reforms. Many revolutionary steps have been taken to benefit the masses amongst which direct benefit transfers played an important role. The "Digital India" campaign and UIDAI programme under the current government have a major focus on the direct benefit transfers to the genuine beneficiaries. The digitalization of the direct benefit transfers has benefitted the both Govt. and the beneficiaries. Linking the Aadhaar of the beneficiary to the bank account he/she held, reduced the number of fake beneficiaries and thus saved the Government revenue.

Objectives of the Study

The objectives of the study are :

- To know the meaning of Direct Benefit Transfer (DBT) and to know the role of present government in DBT.
- To know the problems of benefit transfer to the needy
- To study the advantages of digitalisation in the field of DBT
- To have an idea of the main schemes of DBT
- To have a look on the current status of Direct Benefit Transfer in India
- To analyse about the progress of DBT mission in India in terms of the number of schemes of DBT, number of beneficiaries and the quantum of fund transfer through direct benefit schemes
- To develop some suggestions for betterment of direct benefit transfer schemes in India

Research Methodology

The above study is of descriptive nature using analysis and interpretation techniques for facts findings. Data for the study is collected primarily from secondary sources like government websites, government portals and newspaper/magazine reports from time to time. The data available shall be treated as true and fair approximation of the actual figure. Critical analysis of the reports and data available on the official websites is done, to suit the objectives of the study. For the study we have selected a time span of 5 years starting from the year 2013-14 to 2017-18. Statistical techniques like Tabulation and Diagrammatical Representation have also been used.

The limitation of the study is that we have focussed only on DBT in cash. We have not analysed DBT Schemes in Kind. The study is based on secondary data and personal observation of the researcher.

Meaning of Direct Benefit Transfer

The Direct Benefits Transfer (DBT) means transferring the subsidy amount and other benefits directly to the beneficiaries' bank accounts instead of disbursing these through government offices. Benefit Transfer means payment made by the government without receiving anything in return from the beneficiary. Subsidies, scholarships are the main example for transfers.

DBT is of two types— (i)Transfer in Cash & (ii)Transfer in Kind.

In the first method, Beneficiaries are given the product or services at full market rate and the subsidy amount is transferred into the bank account of the beneficiaries for example in case of LPG. Scholarships are also examples of DBT in cash.

In the second method, beneficiaries are given the product on subsidized rates. It means Govt provides the benefits not in Cash but in Kind. For example- Fertilizers at reduced rates, cheaper goods at Govt. canteens etc.

In this paper, only DBT in cash has been studied.. We have not analysed DBT Schemes in Kind.

DBT and Present Government

DBT is one of the high priority areas of the Government. For simplification and speedy flow of information/funds and; to ensure proper targeting of the beneficiaries, de-duplication and reduction of fraud, Direct Benefit Transfer (DBT) was started on 1st January, 2013.

DBT Mission was created in the Planning Commission to act as the nodal point for the implementation of the DBT programmes. At present, DBT Mission and related matters have been placed in Cabinet Secretariat under Secretary (Co-ordination & PG) w.e.f. 14.9.2015.

Electronic Payment Framework was laid down vide O.M. dated 13.2.2015 and 19.2.2015. Aadhaar is not mandatory in DBT schemes. Since Aadhaar provides unique identity and is useful in targeting the intended beneficiaries, Aadhaar is preferred and beneficiaries are encouraged to have Aadhaar. JAM i.e. Jan-Dhan, Aadhaar and Mobile are DBT enablers and as on date more than 22 crore Jan-Dhan Accounts, more than 100 crore Aadhaar and about 100 crore Mobile connections provide a unique opportunity to implement DBT.

Literature Review

Launched in July 2015, the Digital India initiative was an attempt by the Modi Government to ensure that public services are made available to all electronically by improving online infrastructure and by increasing Internet connectivity. The efforts of the Government were to make the infrastructure available to the masses for convenient transactions of the benefit transfers and more transparency in the system. Various initiatives were simultaneously taken up to bring a wholesome product for the beneficiaries and the economy as a whole.

The beneficiaries were made to open bank accounts at zero balances under financial inclusion scheme so that they have an access to the banking system. Alongside they were made to register under the UIDAI programme and sync their bank accounts with this unique identity. The beneficiaries were given the DBT in the account directly which increased the transparency in the system. The result was an easy access to genuine beneficiaries and elimination of fake accounts saving government revenue.

Problems Faced in Benefit Transfers to the Needy

It was once said by the Prime Minister Late Rajiv Gandhi that every single Rupee that the government spend on subsidies for the benefit of the needy, only seventeen paisa actually reach to them. Before the launch of DBT, various types of problems were there in the benefit transfers which are as follows—

1) Transfer of subsidy under various Government scheme to the needy like the ones under MGNREGA, manure subsidy , gas subsidy , kerosene subsidy, food grains subsidy etc. was a problem because the beneficiaries were widespread and non traceable. So subsidy reaching the needy was not certain.
2) High involvement of the middlemen in the process of transfer left the situation in dark.
3) Accountability of the transfer was an issue.
4) Exploitation of the illiterate by the middlemen was common.
5) Lack of infrastructure for adequate transfer was an issue.
6) Poor did not hold a bank account.
7) Identification and categorisation was difficult.
8) Mismanagement and misappropriation of the funds by administrators and politicians.
9) Declaration of the policies without adequate execution and monitoring.
10) Internet connectivity was not proper in many cases and in most internet connectivity was not there at all.

Need of Digitalization

We are one of the fastest growing economies of the world and steps have been taken by the incumbent government to bring everyone in one network. For every economy it is necessary to have access to information at all times and to optimally utilise the benefits of the schemes provided by the government. Digitalisation improves the accessibility of information and help people benefit from the transfers. Digitalisation has strong impact on the speed and productivity of the network and whether the entire amount transferred as subsidy is reaching the beneficiaries or not. Through Digitalization, corruption will get reduced, making the transfers more transparent and defaulter accountable.

Advantages of Digitalization in field of Benefit Transfer

1) Direct Reach to Beneficiaries.

   Till date the transfers were made in cash with high involvement of middlemen. And hence it was difficult to trace whether the subsidy reached the poor or not. It was questionable because of illiteracy among the masses and lack of infrastructure.

   With the usage of information technology, these things seem to come in a measurable and traceable spectrum. It is likely that with digitalization, the benefits will reach the needy directly without the involvement of middlemen.

2) Benefits to Government.

   Ever since, the governments have tried hard to uplift the poor by providing them with subsidies. But the question was, whether the money transferred by the government under various schemes was reaching its desired destination or not. It is thought that with digitalisation, government would be able to monitor the money transfer very well.

An added advantage with the removal of middlemen would be uprooting the corruption and promoting good governance, transparency, speed etc. With digitalisation, government is likely to save funds in various schemes because bogus accounts could be traced easily. Fraudulent activities can be caught with all the things becoming a part of the highly interconnected and integrated digital network.

3) Benefits to Society as a Whole.

Digitalization as stated earlier also is likely to reduce the dependence on middlemen. With reduction of dependence on middlemen and the direct linkage of the government to the beneficiaries, fraudulent activities could be easily caught and benefit could be directly transferred in the account of the beneficiary. And important impact would be, having everyone in the banking channel which is a pre-requisite for JAM to operate.

With this even the speed and productivity of the transfers will improve.

With greater transparency and more accountability, corruption is likely to reduce, which is in itself a good impact of digitalisation on the society as a whole.

Main Schemes of DBT

The government has re-engineered delivery services of providing the beneficiaries their benefit transfers in a more digitalised and transparent form in the wake of various campaigns like JAM and Digital India. These benefit transfers are provided to the beneficiaries either in cash or in kind depending upon which scheme they are a beneficiary to. The current study focus on direct benefit transfers in cash only.

- **PAHAL——**The direct benefit transfer of LPG or PAHAL (Pratyaksh Hanstantrit Labh) was launched on June 1, 2013 and mandatorily required AADHAR number to be linked for the LPG subsidy though it has been relaxed now. Even without the AADHAR linkage, the subsidy can be availed. The beneficiaries need to have a bank account to get the benefit transfer. The operation of the scheme requires the beneficiaries to purchase the cylinder at the market price. The benefit transfer is done directly in the bank account. Digitalisation has reduced the number of fake claims in the benefit transfers. The entire process keeps the beneficiaries updated with a SMS on their registered mobile number which reduces the chances of any fraudulent activity.
- **MGNREGS–** The DBT under Mahatma Gandhi National Rural Employment Guarantee Scheme is to provide livelihood security of the households in rural areas in the nation by the way of providing at least one hundred days of guaranteed wage employment for every financial year to every household whose adult members volunteer to do unskilled manual work and for matters connected therewith or incidental thereto.
- **NSAP**—National Social Assistance Programme is a programme which provides social security to the old, BPL families in case of the death of the bread-earner and for maternity purposes. It primarily has the National Old Age Pension Scheme, National Family Benefit Scheme and National Maternity Benefit Scheme.
- **PMAYG –** PMAY-G focuses at providing a pucca house, with some basic facilities, to all houseless householder and those households living in kutcha and dilapidated house, by 2022. The immediate the objective is to cover 1.00 crore household living in kutcha house/dilapidated house in three

years from 2016-17 to 2018-19.The beneficiary is entitled to 90.95 person day of unskilled labour from MGNREGS. The assistance for construction of toilet shall be leveraged though convergence with SBM-G, MGNREGS or any other dedicated the source of funding. Convergence for piped drinking water, electricity connection, LPG gas connection etc. different Government programmers are also to be attempted.

- **FERTILIZERS - —**-The Government has introduced Direct Benefit Transfer (DBT) system for fertilizer subsidy payments. Under this system, 100% subsidy on various fertilizer grades shall be released to the fertilizer companies, on the basis of actual sales made by the retailers to the beneficiaries. Sale of all subsidised fertilizers to farmers/buyers will be made through Point of Sale (PoS) devices installed at each retailer shop and the beneficiaries will be identified through Aadhaar Card, KCC, Voter Identity Card etc.
- **SCHOLARSHIP SCHEMES—** Under various ministries there are a list of scholarships that the students can avail depending upon their course and grade. There are scholarships for disabled students, for girls and the underprivileged.

Current Status of DBT

- Since the inception of DBT mission, a total cumulative amount of Rs. 6,25,975 Cr. has been disbursed under various schemes of DBT. These transfers include both the transfers in cash and as well as transfers in kind.
- 55 Govt. Ministries are involved in DBT mission.
- 438 schemes are currently operational pertaining to DBT.

Table 1

Number of Schemes of Direct Benefit Transfers in Cash

Year	No. of Schemes
2013-14	28
2014-15	34
2015-16	59
2016-17	142
2017-18	361

Source— Various Reports of the Govt. of India regarding Direct Benefit transfer

Explanation—

The above table 1 is indicative of the number of schemes through which the government of India is disbursing the DBT in cash over a period of five years starting from financial year 2013-14 to 2017-18. It has been on a consistently progressive trend over this period as the no. of schemes has become 28 to 361.

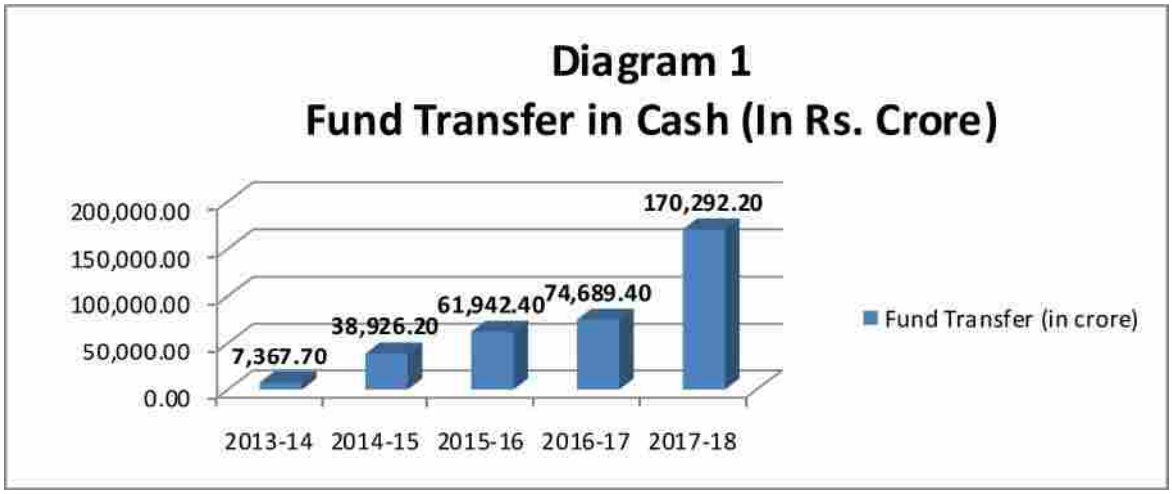
Table 2
Direct Benefit Transfers

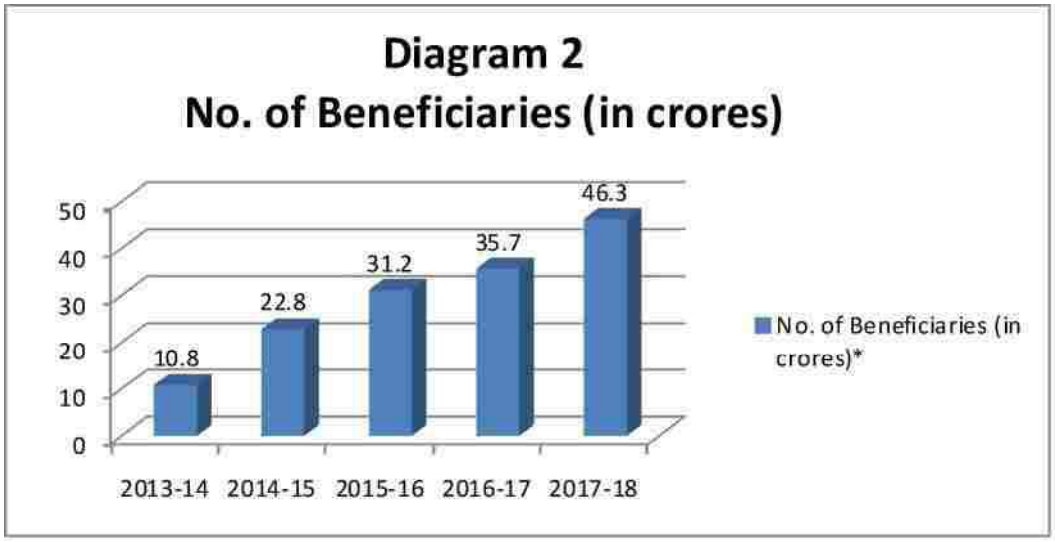
Year	No. of Beneficiaries of Cash Transfer (in Crore)	Fund Transfer in Cash (in Crore Rs.)
2013-14	10.8	7367.7
2014-15	22.8	38926.2
2015-16	31.2	61942.4
2016-17	35.7	74689.4
2017-18	46.3	170292.2

Source— Various Reports of the Govt. of India regarding Direct Benefit transfer

Explanation—

The above table 2 is indicative of the number of beneficiaries under the direct benefit transfers along with the amount transferred to the beneficiaries in cash into their accounts. In terms of number of beneficiaries and the fund transfer, there has been a consistent increase over this period starting from 2013-14 to 2017-18. The no. of beneficiaries have become 4.29 times during the period of our studies. The amount of fund transfer has become 23.11 times during the period of our studies.





Findings—

Union Govt. of India with the support of its 55 Govt. Ministries and various State/UT Governments is involved in DBT mission. A total no. of 438 schemes are currently operational pertaining to DBT. A total cumulative amount of Rs. 6,25,975 Cr has been disbursed under various schemes of DBT. The no. of schemes has DBT schemes have become 28 to 361 during the last 5 Years. The no. of beneficiaries have become 4.29 times during the period of our studies. The amount of fund transfer has become 23.11 times during the period of our studies. . All the figures of DBT in cash have been on a consistently progressive trend during the last five years of our study.

Suggestions—

- Govt. is focussing more on DBT in Cash. Govt. should also give more importance on DBT in cash.
- Instead of Scholarship to students on basis of Caste, they should be provided the study material, sponsorship of course-work/seminar etc.
- Income Authentication of the beneficiaries should be done in a strict way so that DBT might be transfer to the actual needy itself.

Conclusion

With the usage of information technology & digitalization, the benefits by the Govt. have started reaching the needy directly without the involvement of middlemen. With digitalisation, government has been able to save funds in various schemes because fraudulent activities are being caught through the highly interconnected and integrated digital network. DBT has brought efficiency, effectiveness, transparency and accountability in the Indian Government system and increased the confidence of Indian mass in the Governance. Jan-Dhan Scheme of Govt., Aadhaar Authentication and Mobile Authentication have provided a great support in the implementation of DBT. Use of latest sophisticated technology and IT tools are fulfilling the dreams of **Maximum Governance Minimum Government**. More focus on DBT in kind is also necessary because funds credited to the accounts are misused sometimes. Uses of fraudulent income certificates by the beneficiaries need a strict check now.

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DIGITAL PAINTING – A NEW FORM OF VISUAL ART

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Introduction:

Digital art is technically a renewed version of the visual art, which is perceived as a sub-category of the contemporary art based on digital technology. It has secured a distinctive recognition in the world of art.

Digital art greatly expanded the artist's toolbox from the traditional raw materials into the progressive new realm of electronic technologies. Instead of brush and acrylic, artists could now paint with light, sound, and pixels. Instead of paper, artists could collage with found digital imagery or computer-generated graphics. Instead of physical, two-dimensional canvas, artists could concoct three-dimensional graphic works for projection on screen or via multimedia projection.

The introduction of the 'sketchpad', the first computer drawing system that has given rise to various painting software including Corel, Photo paint, Meta Creations, Painter 3D, Adobe Photoshop and JASC's Paint Shop Pro, that allow computer users to simulate painting on a computer screen. Users also employ a computer mouse or a tablet stylus to simulate various sizes of paintbrush, select colours from a colour palette to retouch photographs, adjust the contrast and the colours of images and add special effects. The result is often an enhancement of the picture quality of the photograph. Thus, In the 1990s, with the application of computer technology, digital painting art was born, its full use of computer science and technology perfect painting art to a new realm, as the darling of the new era, covering many industries such as film, packaging, advertising, comics, animation, games, the Internet and so on. Digital painting art is not only a simple change in the traditional art of painting, but also the perfect fusion of science and technology and the representative of the development of space, large to we cannot imagine.

Today, digital painting is popular in applications ranging from conceptual design for film or computer games to illustration for books or magazines. Digital painter usually paints with a stylus on a graphics tablet, which acts like a pen on a drawing board. Digital painting differs from other forms of computer-generated art in that the artwork is painted stroke by stroke manually instead of being rendered by some computer algorithms. Instead of pulling curves using a mouse, digital painting also keeps the 'manual' feel of the traditional craft.

One may ask why some artists prefer digital over traditional painting. The topmost reasons for going digital given by existing digital artists are to undo and redo strokes; to save on materials expenses and to save artwork at different stages. And the truth is, high-quality paints and papers are expensive. With digital paint, there is virtually no cost for the consumables, and artists no longer have to worry that certain colours being used up in the middle of a painting session. This is just like how the digital camera has allowed people to take casual snapshots without worrying about wasting films.

Although, alike traditional artists, digital artists also experience, feel their surroundings and translate these observations into artistic work. The environment remains the same for digital as well as traditional artist. The only difference is that they use digital technology in expressing their thoughts and imaginations. In doing so the cultural values are also reflected in the artwork in accordance with the artist's personal vision.

Infect, as our culture becomes increasingly digitized, digital artists are successfully progressing in exploring and defining this new culture of art. The wide acceptance and admiration for digital art has created new benchmarks and milestones for Indian digital artists and their worldwide popularity has resulted in the runaway success for many artists. These digital artists are loaded with innovative ideas, ingenious thoughts and technologies to execute these implicit as well as explicit imaginations. Digital artists are proficient in clubbing, art with proper technology and they created many pathways for the aspiring artists. Their works become a topic of discussion in social and cultural circles. Younger generations of growing artists across the world are following those digital trendsetters in making their artistic work more attractive and communicable.

The new generation of artists is experimental as well as expressive in blending traditional art forms like drawing, painting, photography, collage with technologically driven art medium like video, graphic and animation. In the modern approach they are impressively creative and rationally sensitive to highlight the complex issues of the present era. The new digital medium equipped them to visualize their ideas and thoughts. They have assimilated in observing the events around them and they are pretty successful in getting the attention of worldwide audiences through their stimulating images. The generation of young and unconventional artists like Sheba Chhahhi, Atul Bhalla, Anita Dube, Vivan Sundaram, Chhatrapati Dutta, Mandeep Singh Manu and Gigi Scaria, uses video, photography and digital technology to make their works more interactive and effective. They have been acclaimed in portraying the sensitive global issues of the world like consumerism inequality, racial discrimination and terrorism with adequate care, sensibility and utmost human responsibility. This class of revolutionary artists initially stores their imaginations on the computer and after adding more value to their thoughts they subsequently transform it into a physical form.

Truth is that traditional art elements and principles are the body and soul of digital art which can be regulated by electronic brushes and tools and allow an artist to adjust colors, themes, textures, shapes in a more desirable and calculated manner, to create an exact replica of the artist's imaginations. They also work on some special sets of image creation tools known as plug-ins or filters to modify the screen images which were next to impossible with traditional tools. These tools redefined the fine arts and created a distinct role in this revolutionary art form.

Digital artists have numerous tools that customary artist doesn't possess. Some of these are a virtual palette consisting of millions of colours, almost of any size of canvas or medium and the ability to correct mistakes, as well as erasers, pencils, spray cans, brushes and a variety of 2D and 3D effect tools. Instead of a canvas or sketchbook, digital artists would use a mouse or tablet to display stokes.

Both traditional and digital art forms are having great and high values with their techniques and skills which make them more precious and popular.

In digital art many works are done by computer programming in which human and its creativity are the most important ingredients and therefore, one who uses the computer program cannot be called as an artist. This practice saves artist to buy costly materials like paint-brush, canvas, colour by spending a huge sum of money. The only requirement is to control the mouse and tablet and to draw on the 'digital canvases' using human creativity and potentials. The artist does not have to wait for drying, cleaning the brushes, mixing the paint. Another advantage of these devices especially in Photoshop is the layers of function by using these functions an artist can divide his painting in different part and different layers in which several changes can be possibly made of single layer without affecting the other parts. Further, computer applications give chance to the creators to Endeavour different styles without employing much more time and labor.

Almost every digital artist has undergone an amazing artistic journey and has carved a niche for himself. They are experimenting with new materials and indigenous elements for innovations in special combinations and unusual treatment has been gaining popularity all around the globe at present. Thus, digital art is a new art form and should retain its new independent character.

The global acceptance and recognition accorded to well known fine art forms such as sculpture, painting and drawing has therefore not been extended to this rather underexplored area of the visual arts, in spite of the popularity of digital art galleries on the world- wide- web [www] as well as some international museums displaying outstanding digital paintings. There is documentary evidence to show that some critics expressed scepticism about the validity of using computer as a multimedia apparatus for executing paintings during its early period of inception in the 1960's. The rejection was based on the premise that the art of painting cannot be done on a computer since the device only generates digital graphical images, which are superficial, without depth and of limited artistic value. To most traditional artists, computer art is solely a technological craft that is informatively and aesthetically deficient. To them computer generated art is for commercial considerations, dull in outlook, lack innovation and quality hence could not be given a place in fine arts. Thus, digital art is not bound by the rules of traditional art; it often simulates it to give the user something familiar and to make the whole process more intuitive for the artist. Early digital painting programs were based on coloring the pixels with a mouse, but today they offer much more: the digital paint blends naturally, can be mixed, and is applied with a special stylus on a graphics tablet.

Conclusion:

To sum up, with the rapid development of computer science and technology, professional painting art field has a revolutionary new breakthrough. In the digital age as the background today, digital art for the art of painting to add new content, expand the broader creative space, and as a new generation of visual art forms, digital painting art has become the current fashion with the mainstream art of painting, applied to the public. Up to now the art of digital painting is still a new art form to show to the public, its theoretical platform, construction concept is still in the initial stage. This paper discusses the new art form as digital painting and its diversified performance.

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NATIONAL HOUSING BANK RESIDENTIAL INDEX

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NHB has been established as an multifunctional apex bank for the housing sector taking an integrated view of real and financial sectors.NHB operates the housing finance system at non subsidized interest rates with full cost recovery and at the same time to induce a degree of internal cross subsidization of interest rates with comparatively lower interest rates being charged from the lower income households. NHB has been mandated with the truly daunting task of estanlishing a sound, safe and viabel housing finance system with full cost recovery. As indian housing finance system has integration with the debt and capital market, regulatory role of NHB has become more important.NHB is playing an awesome Fiduciary responsibility as HFIs can't be run on free market approach

National Housing Bank ("NHB"), a wholly owned by the Reserve Bank of India, which has been established under the National Housing Bank Act 1987, is collecting/collating the data/information from various Banks, HFCs for providing a cluster of housing related indices under NHB RESIDEX.. The primary purpose of the NHB RESIDEX is to educate and inform and do not constitute either professional or investment advice or any service.

In this paper we are going to study the various aspects of the Residential Indices prepared by National Housing Bank.

Objectives of the Study

1. To have the basic idea about RESIDEX i.e. residential index made by National housing bank
2. To know the various types of RESIDEX
3. To know the segmentation of RESIDEX
4. To have a glimpse of the current status of RESIDEX
5. To develop suggestions regarding NHB RESIDEX to make it more efficient and useful

Research Methodology of the Study

The above study is descriptive using analysis and interpretation techniques for facts findings. The study is purely dependent upon secondary data from various sources like Government Reports, Annual Reports, Various Govt. & Non-Govt. websites, Journals, articles, Magazines, etc. Tabulation technique has also been used. The span of Data has been taken as the last three years ending on 31st March 2018.The limitation of the study is that it use only the secondary data collected through various resources.

Meaning of NHB RESIDEX

HB RESIDEX is a set of benchmarks that aims to track housing price indicators across Indian cities. India's first official housing price index, is an initiative of the National Housing Bank (NHB). The index was formulated under the guidance of a Technical Advisory Committee (TAC) comprising of various parties concerned to the housing market. Technical Advisory Committee (TAC) has been constituted to guide in developing the methodology for the preparation and publication of the indices. It includes

the representatives of Government of India (Ministry of Housing and Urban Poverty Alleviation, Ministry of Finance, Ministry of Statistics and Programme Implementation), Reserve Bank of India, National Housing Bank, Banks, HFCs, Builder's association and eminent experts experienced in statistical index computation.

Development of NHB RESIDEX and its Methodology

- NHB RESIDEX was launched in July, 2007 and updated periodically till March 2015, taking 2007 as the base year. During this period, the coverage of NHB RESIDEX was increased gradually to 26 cities.
- From January 2008 to December 2009, RESIDEX index was published half-yearly. The RESIDEX data for 15 major cities are published till the end of 2009. Later in Q1 2012, five more cities and from Q1 2013 onwards, another 6 cities were added to the RESIDEX list. From January 2010 onwards, the index published data on a quarterly basis till March 2015.
- NHB RESIDEX was firstly computed using market data, which 2010 onwards, was shifted to valuation data received from banks and housing finance companies (HFCs). Thereafter, data was sourced from Central Registry of Securitisation Asset Reconstruction and Security Interest of India (CERSAI) from 2013 to 2015.Laspeare Method was used to compute Index.
- NHB undertook a review of the processes and methodology used for computation of the index. Thereafter revamped NHB RESIDEX with larger scope and wider geographical coverage was published. This index is computed taking FY2012-13 as base year and is updated up to March 2018.
- With effect from April 2018, a new series with FY2017-18 as new base year has been published and is updated up to the current quarter. In order to maintain continuity in the time series data, NHB RESIDEX 2012-13 series subsequent to change in base year has been calculated using backward linking factor.
- The housing prices are classified on the basis of carpet area size at city level (INR/sq.ft.) for units under three product category levels namely <=60 sq.mt, >60 &<=110 sq.mt, and >110 sq.mt. The indices are computed using Laspeyres Methodology, followed by calculation of a Four Quarter Weighted Moving Average with application of dynamic weights at product category level and static base year weights on the Weighted Moving Average product category level prices, across all the quarters starting from the base year. Earlier, in addition to transactional weightages, factors using housing/population stock weights were applied at zonal and product levels

Sources of Information for NHB

HPI@ Assessment Prices is computed using lenders' valuation data received from Banks/Housing Finance Companies (HFCs), while HPI@ Market Prices for Under Construction Properties is based on primary market data for under construction properties collected from developers, builders and brokers. NHB publishes City-wise & Composite Indices for both the HPI@Assessment Prices and Composite HPI@Market Prices for Under Construction Properties based on 50 cities. The NHB RESIDEX offers quarterly Housing Price Indices (HPIs) across the cities it tracks.

Benefits of NHB RESIDEX

- NHB RESIDEX is designed to track changes in housing prices at city level and on composite basis. This will help recognize current trends in the prices of Housing Assets at micro as well as macro markets and forecast the future behaviour of the housing market.
- RESIDEX is of a great use to banks and HFCs. The trends of RESEIDEX are useful in credit evaluation processes undertaken by lenders banks and HFCs. The assessment of present and potential housing assets values will ensure stronger safeguards against financial lending.
- NHB RESIDEX will also provide developers a standard tool to gauge housing demand within cities and across the country.
- Consumers, i.e. home buyers, will be able to check and compare prices before entering into a deal.
- Through NHB RESIDEX, policy makers can track/forecast inflation/deflation in housing prices. This will be helpful in developing models for more effective revenue collection, and to design strategic changes in affordable housing schemes.

TYPES OF NHB RESIDEX

NHB has been proposed of making two types of indices—

A- Price Indices B- Rental Indices

A—Price Indices-— In case of price indices there are three types of indices proposed—

1. Housing Price Indices (HPI)
2. Land Price Indices (LPI)
3. Building Materials Price Indices (BMPI)

B- RENTAL INDICES—In case of Rental Indices it is making only one indices—

1. Housing Rental Indices (HRI)

Housing Price Indices (HPI)—In case of HPI NHB is making three types of Indices—

I. HPI @ Registered Price

II. HPI@ Assessment Price

III. HPI@ Market Price for under construction Properties

In all three case of HPI, the Indices have been made separately for 'City –wise' & 'Composite'.

Land Price Indices (LPI)—In case of LPI, NHB is making two types of Indices—

I. LPI@ Registered Price

II. LPI@ Market Price

Building Material Price Indices(BMPI)—-In case of BMPI , NHB is planning of two types of Indices—

I. Traditional BMPI@ Market Price

II. Energy saving BMPI@ Market Price

At present only HPI@ Assessment Price and HPI@ Market Price are Operational. NHB is planning to start other types of RESIDEX like LPI, BMPI & Rental Indices; soon.

Cities Covered under NHB RESIDEX

National housing bank has covered many cities under its RESIDEX. At present, the number of cities covered under RESIDEX is 50 that spread over 18 States and Union Territories. These include 38 smart cities, of which 18 are state capitals. The following table shows the list of various cities covered under NHB reside segmented into four zones all over India.

Table 1

Cities under NHB RESIDEX

Name of Jone	Name of the City
North Zone	Meerut, Faridabad, Bhiwadi, Chandigarh, Dehradun, Delhi, Noida, Kanpur, Ghaziabad, Greater Noida, Gurugram, Ludhiana and Lucknow
East and Central Zone	Patna, Guwahati, Howrah, New Town Kolkata, Bidhan Nagar, Kolkata, Bhubaneshawar, Ranchi, Raipur, Bhopal and Indore
West Zone	Jaipur, Ahmedabad, Gandhinagar, Surat, Vadodara, Rajkot, Nagpur, Nashik, Thane, Mira Bhayander, Vasai Virar, Kalyan Dombivali, Panvel, Mumbai, Navi Mumbai, Pune, Pimpri Chinchwad and Chakan
South Zone	Bengaluru, Kochi, Coimbatore, Chennai, Thiruvananthapuram, Vizag, Vijayawada and Hyderabad

Source— NHB RESIDEX— Various reports

Tier –wise Segmentation of Cities under NHB RESIDEX

National Housing Bank has further segmented the cities into 3 Tiers on the basis of their Favorable Geographical conditions. The following table shows the segmentations

Table 2

Cities under NHB RESIDEX

Tier 1 Cities	Ahmedabad, Bengaluru, Chennai, Delhi, Hyderabad,Kolkata, Mumbai ,Pune
Tier 2 Cities	Chandigarh (Tricity), Dehradun, Faridabad, Ghaziabad,Gurugram, Kanpur, Lucknow, Ludhiana,Meerut, Noida,Bhopal, Bhubaneswar, Guwahati,Indore, Patna, Raipur,Ranchi,Jaipur, Nagpur, Nashik,Rajkot, Surat, Vadodara,Vasai Virar,Coimbatore, Kochi, Thiruvananthapuram, Vijayawada,Vizag
Tier 3 cities	Bhiwadi,Bidhan Nagar (Excluding Rajarhat), Chakan,Gandhinagar, Greater Noida, Howrah, Kalyan Dombivali, Mira Bhayander, Navi Mumbai,New Town Kolkata, Panvel, Pimpri, Chinchwad,Thane

Source— NHB RESIDEX— Various reports

Table 3
Composite Housing Price Index
(Base Year 2012-2013=100)

Quarter ending on	On the basis of Assessment Prices	On the basis of market prices (for under construction properties)
June 2015	113	117
Sep 2015	114	118
Dec 2015	116	119
Mar 2016	118	120
June 2016	121	121
Sep 2016	123	121
Dec 2016	125	122
Mar 2017	127	122
June 2017	126	122
Sep 2017	125	123
Dec 2017	126	124
Mar 2018	127	125

Source— NHB RESIDEX— Various reports

Findings and Suggestions

NHB RESIDEX has proved to be of great use for the various parties working in the field of housing finance.The revised NHB RESIDEX has given more accuracy and reliability than the previously available real estate price indices in the country. However, there is still a long way to go when compared with such type of indices in developed countries. The present coverage of 50 cities is not sufficient. It should be consistently increased. The implementation of Real Estate Regulatory Act (RERA) is a significant step which will ensure better transparency and accountability in real estate dealings so that the authorities can overcome the issue with data insufficiency & accuracy. NHB RESIDEX takes into consideration only the residential segment of the real estate sector, it should also include Commercial aspect of this sector. Besides it, NHB should launch as soon as possible; its other proposed series of indices like BMPI, RI and LPI etc. to smoothen the process of Housing Finance. NHB should also spread awareness among the Indian mass about its RESIDEX service through electronic and print media so that the potential buyers of the Housing Assets might be able to mould his/her purchase decision as per the variations in the prices reflected through RESIDEX.

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A STUDY OF NPCI —-WITH SPECIAL REFERENCE TO BHARAT INTERFACE FOR MONEY (BHIM)

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India has witnessed a significant and drastic change in the payment and settlement system, by transforming the physical cash based economy to digital cash based economy payments and settlement system. Moreover the role of National Payment Corporation of India (NPCI); in transforming the physical cash based Indian economy to digital cash based economy & payments and settlement system; has been seen as a remarkable and milestone achievement in the area payments and settlement system. The role of National Payment Corporation of India (NPCI) in transforming India's physical monetary base into digital cashless payments is considered an outstanding and remarkable achievement in the field of digital payment. In this paper, a brief idea of NPCI and its various services will be taken. Detailed study of its the main service Bharat Interface for Money (BHIM) is the focus of this paper. Bharat Interface for Money (BHIM) is one of such innovations which came as an alternative to the cash transactions. BHIM is a successful technological innovation which has created a balance between cost and efficiency. The aim is also to study the flexible services offered by BHIM promoting the Cashless economy and also supporting Digital India

Objectives of the Study

The main objectives of the study are:

- To have a brief idea about NPCI and its various offerings
- To study BHIM services which are being rendered by National Payments Corporation of India (NPCI)
- To study the merits and demerits of BHIM Service
- To study the quantum of transactions done through BHIM in terms of Volume
- To study the quantum of transactions done through BHIM in terms of Value
- To give some suggestions regarding the betterment of BHIM service

Research Methodology

The above study is descriptive using analysis and interpretation techniques for facts findings. The study is purely dependent upon secondary data from various sources like Government Reports, Annual Reports, Various Govt. & Non-Govt. websites, Journals, articles, Magazines, etc. To know the growth rate geometric mean has been used. Tabulation and Diagrammatical techniques have also been used. The span of Data has been taken as the last four half- years ending on 31st December 2018.

National Payment Corporation of India

NPCI (National Payment Corporation of INDIA) came into existence in early 2009. NPCI operates retail payments and settlements system in the country. It is an effort of reserve bank of INDIA (RBI) and Indian banks' association (IBA). It follows the provision of Payment and Settlement System Act

2007, for creating a powerful payment & settlement platform in INDIA. It is expected that NPCI will bring efficiency by way of standardization and uniformity in retail payments and extending and expanding the reach of payment product for greater customer assistance.

The main objective to setup NPCI was To integrate and consolidate the multiple payment system into nation-wide standard and uniform business process for all retail payment systems The other objective was to create an economical payment system to benefit the people across the country and help financial inclusion.

Products and Services offered by National Payments Corporation of India

- RUPAY
- BHIM(Bharat Interface for Money)
- IMPS(Immediate Payment Services)
- *99#
- CTS(Cheque Truncation System)
- NFS(National Financial Switch)
- NACH(National Automated Clearing House)
- UPI(Unified Payment Interface)
- NETC(National Electronic Toll Collection)
- APBS(Adhar Payment Bridge System)
- AEPS(Adhar Enabled Payment Services)

Bharat Interface for Money (BHIM)

National Payment Corporation of India (NPCI) has developed the BHIM. BHIM (Bharat Interface for Money) provides reliable, secure and fast medium to make online payments through the mobile phone using USSD (Unstructured Supplementary Service Data) platform via *99# service and UPI (Unified Payment Interface) platform via Mobile App. BHIM was introduced by Honourable Prime Minister on 30th Dec 2016. BHIM is interoperable with other bank accounts and Unified Payment Interface (UPI) applications.

"The main purpose of BHIM App is to provide the uniform experience of UPI and also to support those banks who have not developed any UPI app for their customers as yet", says NPCI MD & CEO.

BHIM has been designed for quick and secure user on-boarding, sports a best-in-class and intuitive user-interface and makes digital transactions seamless. BHIM has been a huge boon for merchants who can now accept payments directly into their bank accounts. All users, including merchants, get an exclusive, ready-to-print QR code and a ready to use VPA (virtual payment address) and upon sign-up.

Use of BHIM

- Android users can install BHIM via Google Play store with the help of internet. It requires permission to users SMS and phone calls to verify phone number. Users can experience BHIM by dialling *99# on their phones even without access to internet/data services.

- After downloading the app, user verify mobile number linked with a bank account and give necessary permission. Register bank account with BHIM, and set a UPI PIN for the bank account using last 6 digits of ATM card and date of expiry. User's mobile number is user's payment address (PA), through which user can simply start transacting.
- The user can receive money or send money to family, friends and customers through a mobile number or virtual payment address. The user can send Money to non-UPI supported banks using MMID and IFSC. The users can also collect and reverse payment by sending a request.
- The user can also check their transactions details and bank balance on the go.
- The user can scan a QR code for faster entry of payment addresses. Merchants can display their printed QR code.
- Transaction Limits in BHIM app is maximum of Rs. 20,000 per transaction and Rs. 40,000 within 24 hours. There is no transaction charge through BHIM app.

Advantages of BHIM app

- BHIM is an Indian app and a digital payment app for all bank accounts. If user has multiple bank accounts then user can change his accounts at any time. It works 24x7. The user doesn't require having net banking activated in his account. Just only a working mobile number registered with bank is required. BHIM app can work with *99# without internet.
- The BHIM app has its password. The user has to enter this password each time to access the app. The user cannot complete any transaction without UPI PIN because transactions are secured with UPI PIN.
- BHIM app is fast, secure and simple. It is very easy to understand and user-friendly app. From the home screen User can make all the payments in three or four steps. The speed of the BHIM app is very fast. It takes less than 20 seconds to complete the payment. Bank account balance and transaction details can also be checked instantly.
- IMPS interface is used to perform all the transactions. Scan and pay facility is also available in the BHIM App. The user gets a UPI virtual payment address (VPA) it is very easy to learn. Users can also earn interest as the money remains in his bank account.

Disadvantages of BHIM App

- Allows users to make default only one bank at a time to the phone.
- Works only on the mobile number which is registered with bank account.
- The user can only check the bank balance only from BHIM but can't get the account statement.
- The transaction limit of BHIM App is Rs.40000 now which is quite low.
- The server response is pretty slow. Sometimes it is unable to generate the OTP.

Current Statistics regarding BHIM

- **As on 3rd January 2019,the total number of BHIM App downloads starting from its inception is** 38.8 million on Android and 1.93 million on IOS.
- As on 19th January, a total of 128 banks Are live on BHIM app.
- A total no. 253.112 Million transactions have been done through BHIM app since its inception.
- A total no. Rs. 31823.03 Crore have been transacted through BHIM app since its inception.

Table 1

The Volume of the Transaction through BHIM (in Millions)

2017 FIRST HALF (Jan to June)	2017 SECOND HALF (July to Dec)	2018 FIRST HALF (Jan to June)	2018 SECOND HALF (July to Dec)
356.5	**1600.14**	**3647.19**	**6,692.66**
623.15	**1898.63**	**4,011.16**	**6,872.57**
823.1	**2245.34**	**4,839.65**	**7,064.86**
1002.15	**2348.7**	**4972.69**	**8,206.37**
1306.73	**2548.81**	**5,748.47**	**7,981.82**
1486.71	**3083.21**	**6,261.25**	**7,589.19**
Total			
5598.34	**13724.83**	**29480.41**	**44,407.47**

Source— Various Reports of NPCI

Explanation— The above table shows the volume of transactions done through BHIM app during the last 4 half- years ending on 31st Dec.2018. The no. of transactions for the last 4 half –years are 5598.34, 13724.83, 29480.41 and 44,407.47 respectively. All figures are in Millions. The compound growth rate of volume per half year is 54.42% exhibiting the significant growth in habit of payments through BHIM. However, the volume in the second half of the year 2018 has moved downwards. It is so because many other non-govt. apps using UPI interface are also in the market and they are giving tough competition to BHIM.

Table 2

Total Value of Transactions through BHIM (in Crore Rs.)

2017 FIRST HALF (Jan to June)	2017 SECOND HALF (July to Dec)	2018 FIRST HALF (Jan to June)	2018 SECOND HALF (July to Dec)
1.718	**5.433**	**9.57**	**16.42**
1.97	**6.807**	**9.88**	**16.5**
2.46	**7.603**	**11.95**	**16.33**
3.187	**7.632**	**12.6**	**18.27**
3.976	**8.19**	**14.16**	**17.35**
4.617	**9.066**	**16.34**	**17.06**
Total			
17.928	**44.731**	**74.5**	**101.93**

Source— Various Reports of NPCI

Explanation—The above table shows the value of transactions done through BHIM app during the last 4 half- years ending on 31st Dec.2018. The values of transactions for the last 4 half –years are 17.928, 44.731, 74.5 and 101.93respectively. All figures are in Crore Rs. The compound growth rate of value per half year is 67.82% exhibiting the significant growth in habit of payments through BHIM. However, the value in the second half of the year 2018 has moved downwards. It is so because many other non-govt. apps using UPI interface like Google Pay, PhonePe, MobiKwik, Paytm, Airtel Payments bank,Chillr etc. are also in the market and they are giving tough competition to BHIM.

Diagram 1
The Volume of the Transaction through BHIM (in Millions)

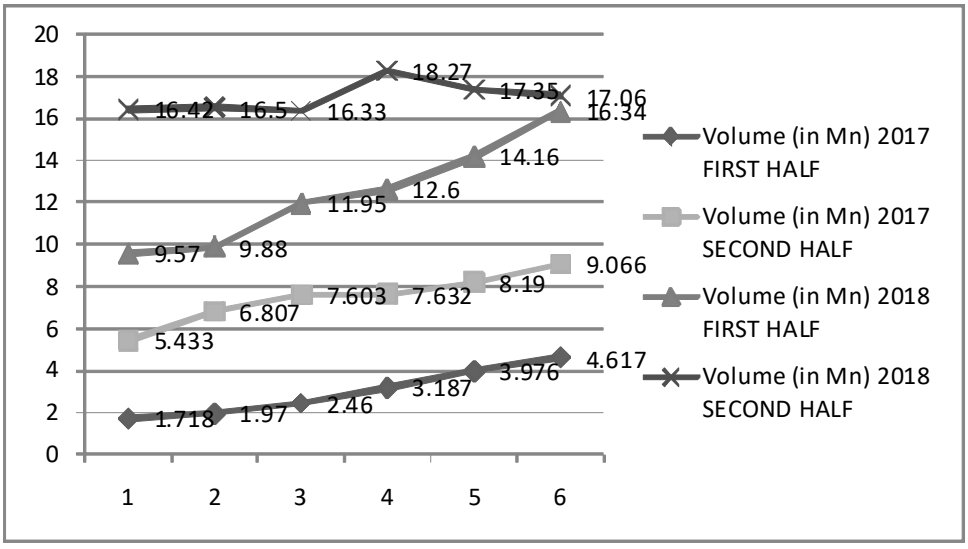
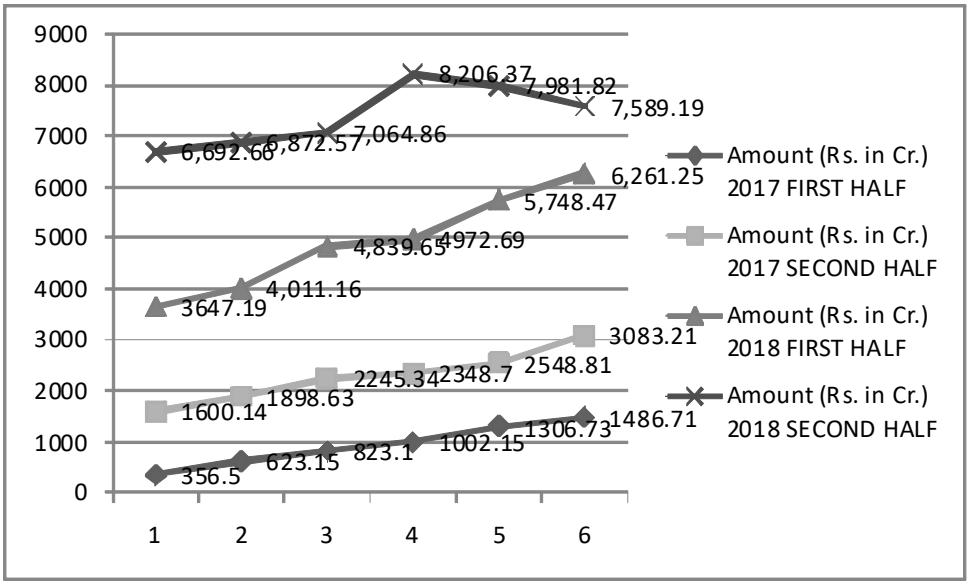


Diagram 2
Total Value of Transactions through BHIM (in Crore Rs.)



Suggestions

- The Government should aware the Indian users about BHIM services and explain its benefits to them so that user may get attracted to this reliable Govt. App. Awareness programmes regarding BHIM should be conducted by Banks.
- The daily transaction limit should through BHIM app should be increased up to Rs.100000.
- BHIM works only in Hindi and English, like other existing mobile wallets it should support some local languages.
- Like other bank wallets, BHIM app should be enable to view statement of Transactions of the accounts attached.
- Sometimes it is unable to generate the OTP so the server response rate should be increased.
- Network infrastructure of BHIM should be made powerful as there are frequent cases of Transactions Pending.
- Govt. to promote use of BHIM should launch some schemes like cash back, discounts etc.

Conclusion

The cashless transaction payment system is getting its new heights day by day, as soon as the market becomes globalized and the growth in the banking sector, more and more people moves from cash to cashless system. The cashless system is not only a requirement but also a need of today society. All the online market depends on the cashless transaction system. The cashless transition is not only safer than the cash transaction but is less time consuming and not the trouble of carrying and trouble of wear and tear like paper money. It also helps in the record of all the transaction done. So, it is without a doubt said that future transaction system is cashless transaction system. BHIM is one among the best technological advancement in the present century and the services offered by BHIM helps in Time utilization and furthermore, it is very easy to use. As we have studied above that for the last 4 half-years ending on 31st December 2018, the Growth of BHIM has been tremendous both in terms of volume and in terms of value. Indian mass has been adopting BHIM as a tool of their daily life for payments and settlements. But now a days BHIM is facing severe competitions form other Apps of UPI based interface. NPCI along with Govt. should make BHIM more competitive by creating awareness among Indian mass regarding it through its Banks and it should also give attractive incentive in form of cass-backs, discount etc. while doing payment with BHIM.

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DIGITAL LEARNING CENTERS

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Introduction: India concerned for quality is reflected in its approach to higher education. The comities and commissions appointed in the post independence period underlined the importance of quality in higher education. Till the end of past centuries these commities consistently express their fear that expanxion of the higher education system will lead to a decline to quality and standards. The University Education Commission of 1948 considered that higher education was for the talented and was concerned about the possible erosion in quality if enrolment increased and the system expanded. The education commisiion of 1964-66 was also in favour of limiting access ro higher education for fear of erosion in quality. They were in favour of selective admissions to higher education institution so as to maintain quality. The commission argued for a cautioned expansion of enrolment in the universities and that to accompany by an increase in the number of competent teachers and in the improvement in the facilities. The challenge of education document of 1985 and the national policy on education of 1986 also argued for a consolidation rather than a quantitative expansion of the system. For the Commities and commissions protecting the university education fromdegeneration and poor quality was the foremost concer rather than the expansion of higher education. This approach to quality changed from the turn of this century. The commities appointed in the past two decades argued for an expansion of the system. For eg.the Birla AmbaniCommitiee 2000, The National knowledge Commision 2006 and The NarainMurtiCommitie 2012 among others did not favour a policy of limited expansion of system for fear of erosion of quality. Infact they underlined importance of an expanded higher education sector to improve global competitiveness of the conomy.

Digital resources for learning are best describe as technology based multimedia content specifically designed for education purposes. There are a lot of digital resources on the internet and other sources, design for various purposes such as to provide new information, marketing or entertainment. However, digital resources for learning are designed with specific intention to be used for learning rather than for anyothrer information purposes. Therefore their design includes a focus on how people learn with the utility of such media in their activities, and how such resources can be designed, developed and manged for that specific purpose. Traditional thinking avout digital resources for learning as arplacement to teachers and books are not helpful at all for today's education. Instructional multimedia, Computer based tutorial's, Computer manged instruction, Programmed instruction, reusable learning objects, etc all assume the learning occurs when earners are studying information on the screen of a computer device and reinforcr remembering that the same content through an interactive drill and practice questions or similar reinforcement mechanisms. Actually it is not evident if such an approach has ever been affective except in scenarios where teachers were not available to students at all, such as in distance learning programmes, corporative training where a companies offices are distributed all over the world and require just in time information, or in a case where customers receive a Computer based

package together with a product they purchased. However such an understanding of the role of digital resources as an information container presenting information in a convenient way for remembering appears to be wide spread even in the context of formal education and training. In this context (a) teachers should be playing central role in the design of learning activities and facilitation of learning, rather than just being transmitters of ready made knowledge to passive learners and (b) where students should be engaged and learn through experiences and opportunities created by these activities. It is somehow disturbing to witness that even top scientific journals are continuing to promote the understanding that technology just a medium for the transfer of information to passive learners. Therefore there is a significant need to contribution to the transformation of a wide misunderstanding of the roles of digital resources for learning in the context of formal education, primarly at schools, but also in higher education and corporate training. Digital resources for learning atleast in the context of formal eduction must serve different purposes than being the media for the transfer of explicit curricalam context and information. Therse resources in should in no way seen as a replacemet to teachers or other resources, either digital (eg. websites or e-books) and traditional (eg. books) digital resources for serves theses following purposes.

Digital resources for learning should supplement, not replace a teacher.

Digital resources for learning should supplement other resources, including the traditional resources, no necessary to relplace them.

Digital resources for learning should supplement and mediate activities where learning is to occr not replace activities or be activities on their own.

ANALYSIS OF THE STUDY- India's most prestigious the Indira Gandhi National Open University (IGNOU) is soon likely to setup 5000 digital learning setup across India. The new soon to be launched 5000 digital learning center will also be located at the rural and the semi-rural areas across India while the Government of India creating the communication networks for the same. These Digital Lerning centers of IGNOU will further reconnect with over 10 Lacs villages across India to help students to acess the Digital Learning. IGNOU and the National E-Governance Division of the Ministry of Information techonology had signed an MOU to extent their support in the form of E-Governance materials completely ready as per the Government of India. Under the scheme, the Central Government will thrive to offer internet network nationwide. IGNOU has newly setup their NECIRC (North East Council of IGNOU Regional Centre) to run the educational programme via distance learning university in the states of North East. The new setup of NECIRC a real proved out to be a challenging task to execute as there was very poor internet connectivity, which made digital learning almost impossible in the northeast. Now with the help of Government of India, NECIRC has revived their survuise via GYAN DARSHAN and SWAYAM PRABAH, the initaive of the HRD Ministry and can easily accesed remote areas across the Northeast state. The new digital learning centers will work as added advantage of the broadband connectivity between the students and teachers. This digital center will further reconnect and will supply study material to the students located in the remote areas via the broadband connectivity.

With the advent of ICT int 21st Century, the education center throghout the world is undergoing a metamorphic change in respect to the way teachers teach and the way students learn. For success in

their new roles in imparting digital education to the learners the teachers no doubt will need domain knowledge and pedagogical skills, but they will also need to be proficient in ICT skills, which can help them in both teaching and research. In imparting digital education to the learners through MOOCs (Massive Open Online Courses). ICT skills can indeed be very helpful, especially in regard to managing discussion forum in virtual classrooms and in assessing the students online. With the MOOCs being implemented in the formal education system in India for credit transfer, there is a need to train teachers in ICT skills at a fast pace. ICT if properly integrated with education can change the face of higher education in India. However, with the advent of newer technologies every day, there are many challenges in adopting ICTs. The need of the hour is the judicious selection and integration of ICT tools with education pedagogies to enhance the quality of entire education system. These must be able to provide individual customized solutions to the learners, right from guiding them in selection of course, admission, learning, examination and result as well as helping them to find job and to pursue another related course in later part of their career with the use of ICTs, the boundaries between the regular student and ODE (Open and Distance Education) students shall diffuse as more and more learners opt for ODE system to enhance their knowledge and skill through felixible time mode. The boundaries between the urban and rural students as well as between different regions would also diffuse. But in order to make it succesfull in addition to improving infrastructure, we must also empower our faculty, non teaching staff and students in basic ICT skills so that they are able to use these technologies easily.

Teaching, learning and quality consist of three broad themes in its conceptual frame. First, Teachers and teaching learning, second is quality management and third is ranking, research and quality. Although teaching and learning are consider core to improve quality, research evidence on teaching learning process amnd classroom practices in higher education are limited, if not rare. The higher education classrooms around the world are changing from lecture base and teacher centric mode to more interactive and student oriented teaching processes. New teaching strategies and new modes of technologies mediated teaching learning process are slowly but steadidly acceptance. Enhancing the quality of an expanding an diverse system has become the major challenge facing most countries across the globe. The focus of quality assessment is shifting from indicatrs of improving access to enhancing learning outcomes. The management of and management for quality at the institutional level is cruitial and requires institutional efforts through devising policies, structure, mechanism, processes and accountability framework. Institutions are becoming increasingly aware of their global standing because the universities realize that they are situated in a global market place. In India, there is a sense of disquiet voiced by the chancellors, businesses and policy making cicles that none of the Indian Universities figure in the top 200 Universities of the world. National Government aspire for their higher education Instituton to compete globally and become academically attractive to international students and reasearchers. Research in universities is a stepping stone to improve the quality of teaching.

Conclusion and Suggestion

Indian teachers overwhelmed by the task of completing the syllabi, burden by non academic works, managing large size classroom and lack of understanding about higher education pedagogy, often follow a method inaffective in today's world of information abundance. However inspire of the drawback and limitations such as poor infrastructures, lack of ICTC facility and ineffective traning, delay in administrative process or poor coordination between supply nd demand of recurring materials,

only a handful of teachers in Indian college and universities try to teach affectively. There is a need for a practical framework and a guiding model for teachers how to best utilise digital resources for learning and achieve learning outcomes of the multidimensional curriculum. Such a framework is to serve as a powerful intervention, aligning educational profesional to transform traditional practices and promote a learning center culture. Some suggestions to promotedigital learning are as follows.

1. Digital resources for learning should be design according to the 3 types of curriculum knowledge contentI.e digital resources for learning should be design to support the development of fundamental concepts that contribute to an essential base of disciplinary and cross disciplinary knowledge.
2. Digital resourcesfor learning should be design in a way to support activities where knowledge is created and used, not just for the transfer of knowledge content.
3. Digital resources for learning should be design yo support activities leading to development of new litracies
4. Digital resouces for learning should be design to allow presentation maximising the amount of content, often in a small and temporarily limited screen space through the use of affective visual, other multi modalities and interactivities.

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IMPACT OF SPIRITUALITY ON CORPORATE MANAGEMENT

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INTRODUCTION

In today's fast growing world, the economy is growing at a faster rate. Everyday organisations come up with the new ideas of growth and development. For proper execution of any idea, efficient management is must. Unfortunately, due to stress and other competitive factors of today's arena, managers are not able to restore sound mental health which in turn leads to poor leadership, lack of teamwork and bad decision making. It is high time now to inculcate the teachings of Lord Krishna from Shri Mad Bhagvad Gita in the corporate culture. From thousands of years, people look for guidance in this holy book when they feel lost and looking for the right direction in life. In the battlefield of Mahabharata, Arjuna's despondent position is representative of typical human situation. The dilemma of righteousness and morality is faced by every human being. Management guidelines are present in Bhagvad Gita in very convincing and evident manner. The wise use of available resources and the lesson of Nishkama Karma i.e. work for the sake of work only are the two major pieces of advice mentioned in Gita which can guide the managers in an effective and efficient manner. Visionary work culture, work commitment, good mental health by refraining from taking the whole credit of success and failure which in turn saves a person from ego, self pity and distress is also highlighted by Krishna in the holy book.

People earn profits and not organizations. Human resource is the greatest resource for any organization. For the quality of items on the balance sheet, the sound mental health of personnel is very important. For successful achievement of objectives, today corporate world is encouraging managers and employees on leadership skills, time management, stress management etc. The Bhagavad Gita has timeless relevance applicable to all times everywhere. Management of time is a systematic way of doing all activities in any field of human effort. Lord Krishna in the Gita advises how to manage for a better time. Today we find many businesses saddled with mounting debts and losses. Internal cohesion and external resilience ability is required to deal with stress and an ability to operate beyond the ego and the Gita helps in all of this.

Management is a process of forming a vision and planning the strategy, cultivating the art of leadership, developing human resources and gets them committed to work for a common goal to maximize the social benefit. There is an important distinction between effectiveness and efficiency in management. Effectiveness is doing the right things and efficiency is doing the things right. It may be noted that while Western design on management deals with the problems at superficial, material, external and peripheral levels, the ideas contained in the Gita tackle the issues from the grass roots level of human thinking because once the basic thinking of man is improved it will automatically enhance the quality of his actions and their results. The western idea of management has placed

utmost reliance on the worker (which includes Managers also) -to make him more efficient, to increase his productivity. They pay him more so that he may work more, produce more, sell more and will stick to the organization without looking for alternatives. The sole aim of extracting better and more work from him is for improving the bottom-line of the enterprise. Worker has become a hire able commodity, which can be used, replaced and discarded at will. Our country is among the pioneers for adopting western culture because of its century's old colonization by the western rulers. The western management thoughts although acquired prosperity to some for some time has absolutely failed in their aim to ensure betterment of individual life and social welfare.

There is an urgent need to relook at the prevalent management discipline and should be redefined. The first lesson in the management science is to choose wisely and utilize optimally the scarce resources if one has to succeed in his venture. During the Mahabharata War Duryodhana chose Shri Krishna's large army for his help while Arjuna selected Shri Krishna's wisdom for his support. This episode gives us a clue as to who is an Effective Manager. Having adequate resources is not enough, wise utilization of those resources determine the success or failure of an organization. Men, money, material, machine and method are the five basic resources required to run an organization. So to redefine the management discipline, the first step the managers should take is to become more thoughtful for the use of these limited resources.

There is no salvation without Karma. We must overcome inaction, indecisiveness and state of paralysis, which are diseases more dangerous than the cancer. And these can be overcome by Risk-Taking. Progress is directly linked to risk. Please note that to work (karma) alone you have the right, not the reward, in corporate/real life. Gita advises non- attachment to the fruits or results of actions performed in the course of one's duty. Dedicated work has to mean 'work for the sake of work'. If we are always calculating the date of promotion for putting in our efforts, then such work cannot be commitment-oriented causing excellence in the results but it will be promotion-oriented resulting in inevitable disappointments. By tilting the performance towards the anticipated benefits, the quality of performance of the present duty suffers on account of the mental agitations caused by the anxieties of the future. Another reason for non-attachment to results is the fact that workings of the world are not designed to positively respond to our calculations and hence expected fruits may not always be forthcoming. So, the Gita tells us not to mortgage the present commitment to an uncertain future. If we are not able to measure up to this height, then surly the fault lies with us and not with the teaching. If once, we try focusing on our duties and responsibilities only without expecting any benefit, profit and reward in return then the quality of items on the balance sheet will automatically improve.

Today's modern managers face many dilemmas as Arjuna faced before the commencement of the battle of the Mahabharata. The holistic vision of the Gita develops ability to analyze as well as synthesizes all aspects of a particular situation to arrive at a particular decision. The Gita gives full freedom to a leader and a manager for decision making. It emphasizes the importance of managing oneself.

Attitude towards work is another important management guideline i.e. emphasized in Bhagvad Gita. Three stone-cutters were engaged in erecting a temple. As usual a H.R.D. Consultant asked them what they were doing. The response of the three workers to this innocent-looking question is illuminating.

'I am a poor man. I have to maintain my family. I am making a living here,' said the first stone-cutter with a dejected face.

'Well, I work because I want to show that I am the best stone-cutter in the country,' said the second one with a sense of pride.

'Oh, I want to build the most beautiful temple in the country,' said the third one with a visionary gleam.

Their jobs were identical but their perspectives were different. What Gita tells us is to develop the visionary perspective in the work we do. It tells us to develop a sense of larger vision in one's work for the common good.

Now the Gita becomes a management mantra that is being included in curriculum of The Indian Institute of Management at Indore as a means of providing spiritual guidance in the corporate battle field. The Bhagavad Gita has become compulsory for every student in American university. The university wanted a transformational course that will influence the character and the life of student. India's largest automaker Maruti Suzuki is training its leaders in self management and time management, also based on techniques of the Bhagavad Gita, seeks to improve efficiency and effectiveness. State Bank of India, NTPC and MMTC corporates are looking upto the Gita to solve management problems. From mind control and value based management, motivation and leadership, it seems to have an answer for everything.

Conclusion

In conclusion, it can be said that teaching of the Bhagavad Gita is of universal significance for the modern practice of management. Modern management principles today can be derived from the body of knowledge of the Bhagavad Gita. One of the central ideas of the Gita is the "Performance of activities without attachment or any expectation of results." According to Modern Management Principles, goals can be achieved through coordination of efforts. The Gita also emphasizes that prosperity can be attained through cooperation. If one does this natural duty with devotion and dedication the Gita says, one can attain not only growth and development, but also success, prosperity and progress. It is time that modern management thinkers should embrace the importance of ancient Indian ethos in filling the gaps that in the existing paradigms of leadership and management. By following the guidelines highlighted in Gita along with the western culture approach, future leaders of India can become superior to any that have ever been the world.

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PARTITION OF PAKISTAN (1971) AND CHINA'S REACTION

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The development of close and friendly ties between China and Pakistan during the sixties, especially in the wake of the Sino-Indian war of 1962, was the result of deterioration in Sino-Soviet and Sino-Indian relations.

Pakistan had diplomatic and trade links with China as early as 1952. Thus in 1952 Pakistan's exports to China accounted for 15.7 percent of her total exports. Pakistan's imports form China amounted to $2.2 million – 0.4 percent of her total imports that year[1]. Yet China was apparently, suspicious of a Pakistan allied militarily and economically with the West, especially the United States. There were some signs of thaw in 1956 when Pakistan's staunchly pro-Western Prime Minister, Awami League leader (and incidently, Sheikh Mujib's political mentor) H.S. Suhrawardy, visited China. The Chinese Premier, Chou En-lai, also came to Pakistan in 1957 and visited both Karachi in West Pakistan and Dacca in East Bengal.

But these high level visits did not lead to any fundamental change in the pattern of Sino-Pak relations. Until the sixties Pakistan, in Ayub's apt phrase, was "on terms merely of nodding acquaintance" with China[2].

According to the testimony of President Ayub Khan, Sino-Pak relations improved as result of the initiative taken by Pakistan in 1959-1960[3]. The Chinese were "unresponsive till December 1961"[4] but soon warmed up and on 4 May 1962 Pakistan and China announced their decision to negotiate border demarcation and sign an "agreement of provisional nature[5].

Sino-Pak ties grew stronger and closer after the Sino-Indian border war of 1962 during which the Soviet Union, after initial hesitation, favored India. In 1965 Indo-Pak war over Kashmir, China gave resolute moral and diplomatic support to Pakistan against India and threatened to intervene in favour of Pakistan if India attacked East Bengal[6].

After the fall of Ayub in Pakistan (March 1969) and the convulsions of cultural revolutions in China, Peking continued to maintain close relations with Islamabad. Thus, in April 1970 Pakistan was one of the three non-communist Asian countries to have a Chinese ambassador (the other two were Nepal and Afghanistan). At around this time the Chinese leader Kuo Mo-jo visited Nepal and Pakistan. He delivered Premier Chou's message to the Pakistani President Yahya Khan and invited him to visit China.

During the period December 1970 to March 1971, the media in China, unlike those in Soviet Union, Maintained and inscrutable attitude toward the developments in the domestic politics of Pakistan. The Chinese press and radio- in load contrast to their Soviet counterparts[8].

Nevertheless, the postures and activities of several pro-Peking leftist groups in East Bengal form 1968 onward caused speculation that the Chinese might have a secret stand – different form their public and official one – on the East Bengali national question[9].

Moulana Abdul Hamid Khan Bhashani, the leader of the pro-Peking leftists, was instrument in fomenting anti –Ayub uprisings in Eest Bengal in December 1968. The students' affiliate of the Bhashani faction of the National Awami Party, the East Pakistan Students Union (EPSU) "Menon Group," ha earlier in 1967, declared that the issue of East Bengal was "not a question of regional autonomy but of national self-determinatin.[10] Other pro-Peking groups such as Purba Banglar Sromik Andolon (The East Bengal Workers Movement) led by Siraj Sikdar urged in 1968 that a guerilla campaign be launched to achieve East Bengali "national liberation"[11].

China maintained her silence on the political problems within East Bengal until 4 April 1971 when the Hsinhua News Agency in its first account of the crisis simply reported President Yahya Khan's launching of army action in East Bengal and his statement blaming "secessionist elements" for bringing about the crisis.[12]

The next reference in the Chinese press to the affair was made on 7 April 1971. This was in the form of a report of a Chinese protest to India against a demonstration by Indians on 29 March, in front of the Chinese embassy in New Delhi. The report said that demonstrators were "slandering" China by accusing her of aiding the Pakistan government" in its war on the 'freedom-loving people of East Bengal' "it further said, "it is known to all that the Chinese government….. has never interfered in the internal affairs of other countries. At present, while flagrantly interfering in the internal affairs of Pakistan, the Indian government has gone so far as to connive at the willful troublemaking by Indians in front of the Chinese embassy. Peking's apprehension of the prospective Indian role in the Bangladesh struggle clearly emerged as her principal concern by the time the first major official Chinese reaction was publicized in the in the peoples Daily on 11 April 1971. A commentator's article entitled "What Are the India Expansionists upto?" made no comment on the East Bengali struggle but directed the main force of its attack against Indian's "open interference in the internal matters of Pakistan". It was also highly critical of the attitude of the Soviet Union as expressed in President Podgorny's letter of 2 April 1970 to President Yahya[14] On the same day (11 April 1971), Premier Chou-En-lai's letter to President Yahya expressed China's opinion that "unification of Pakistan and unity of the peoples of East & West Pakistan are basic guarantees for Pakistan to attain prosperity and strength." The letter which, according to a former member of Yahya's cabinet of ministers (writing in 1973), came in response to "President Yahya khan's frantic appeals to Peking for support as counterbalance to Moscow's support for India.[15] stated that foreign powers were interfering in the domestic affairs of Pakistan. "We have noted," wrote the Chinese Prime Minister, "that of late the Indian government has been carrying out gross interference in the internal problems of your country. And the Soviet Union and U.S. are doing the same, one after the other."[16] Chou En-lai's letter expressed China's sympathy for Pakistan in such broad terms and laid so great an emphasis on the theme of external interference in the conflict in East Bengal without making any direct comment on the East Bengal – West Pakistani armed confrontations that many wondered about the actual Chinese attitude toward the core issue of the East Bengal nationalist struggle.[17]

November 1971

The event that brought about a reiteration of Chinese support for the safeguarding of the "national unity and national unification of Pakistan" was the arrival in Peking on 5 November of a Pakistani diplomatic-military mission led by Mr. Bhutto. According to Pakistan Foreign Office spokesmen, the

delegation was in China" at the invitation of the Chinese government for consultation on matters of mutual interest.[18]

The Pakistan delegation held talks with Chinese Premier Chou En-lai, Vice Chairman of Military Commission, Yen Chin-Ying Acting Foreign Minister, Chi Peng-fei, and Deputy Chief of General Staff of the Chinese Army, Peng Shao-Hui.

Chou En-lai in his statements during the visit of the Pakistani delegation did not refer to the convulsions in East Bengal. Only Chi Peng-fei, the Acting Chinese Foreign Minister, referred to the crisis. Speaking in a banquet in honour of the Pakistani delegation on 7 November, he said, "The East Pakistan question is the internal affair of Pakistan, of which a reasonable settlement should be sought by the Pakistan people themselves, and it is absolutely impermissible for any foreign country to carry out interference and subversions under any pretext."

Chi Peng fei reiterated "resolute Chinese support for Pakistan if she should be subjected to foreign aggression.[19] Nonetheless, the emphasis laid by the Chinese Minister on a "reasonable settlement" of the East Bengal problem to be reached by the Pakistani herself should bring about a resolution of the East Bengal crisis by political means.[20]

He observed that the delegation had "come back completely satisfied." Indeed, Mr. Bhutto further said, so successful were the Sino-Pakistani talks and so "complete" was understanding that there was no need to issue a joint communiqué.[21]

It seems that Bhutto's claims not with standing the Chinese commitments to Pakistan during November did not go "beyond the ambiguously worded promise of support that Mr. Cho En-lai made to President Yahya Khan…… on 11 April."[22]

After 21 November 1971, when the India armed forces in the east openly sided with East Bengal partisans in their clashes with the West Pakistani army along the Indo-East Bengal border,[23] the Pakistani government probably tried to obtain more positive support form China. On 24 November the Pakistani ambassador in Peking met Prime Minister Chou En-lai and gave him a letter from President Yahya. "Premier Chou," reported the Hsinhua News Agency, "expressed concern over the military provocations carried out by India along the East Pakistan border in the past few days.[24]

Later, the Chinese Vice Premier, Li Hsien-nien, Speaking on 29 November at a reception at the Albanian embassy at Peking, charged that the tension on the Indo-Pak sub-continent had been "aggravated" because "in the past few days the Indian government, supported and encouraged by social-imperialism, has been carrying out subversive activities and military provocations against East Pakistan". He suggested that to ease the present tension, "serious consideration should be given to President Yahya Khan's reasonable proposal for the armed forces in India and Pakistan to withdraw respectively from their border and disengage.[25]

Meanwhile, China, having become a member of the United Nations as a result of withholding of the U.S. veto against her membership (a consequence of the unfolding Sino-U.S. détente), pledged in United Nation "its firm support to the Pakistan people in their struggle against foreign aggression. "The Chinese Vice Minister for Foreign Affairs and leader of the Chinese delegation to the United Nations, Mr. Chian Kuan-Hua, speaking on 27 November also called the "Indo-Soviet Treaty of August

1971" a treaty of Military alliance" which encouraged and supported India to launch "a bare-faced armed aggression against Pakistan," a neighbor of China.[26]

December 1971

Thus on 2 December 1971, Hsinhua carried a report that alleged that the Indian government, backed by "social-imperialism," was "plotting to create a Bangladesh in East Pakistan in an attempt to divide Pakistan and realize its expansionist ambitions to annex East Pakistan." It further said, "Invasion of East Pakistan by Indian troops "began" on 21 November, and observed that Mrs. Gandhi's call to Pakistan to withdraw West Pakistani troops from East Bengal, Pakistan's "own territory," was "arrant gangster logic." The report also compared the Bangladesh situation in 1971 to the Tibet crisis in 1959 and said, "it was precisely the Indian government which engineered a rebellion in China's Tibet region, and after the rebellion was crushed, made use of Dalai, head of the traitorous bandits, to force or coerce tens of thousands of Chinese residents to go to India, created the so-called 'Tibetan refugee issue,' and energetically antagonized China.[27]

After 3 December 1971, as war broke out between India and Pakistan, China launched her verbal broadside against the Soviet Union, who according to her was the main culprit in the Bangladesh crisis. On 4 December, the Hsinhua News Agency released a polemical dispatch that charged that the "Indian government aggression" against Pakistan was "approved and supported by the Soviet government.[28]

On 7 December the Peking People's Daily carried a commentator's article entitled "Refute the Tass Statement." Criticizing the Soviet government stand as reflected in the TASS statement of 5 December 1971,[29] the article opposed the Soviet view that "the Pakistan government's actions" in East Pakistan were "the main cause of tension" between India and Pakistan and maintained that the main cause of the tension was "no other than the support and encouragement given by the Soviet revisionist social-imperialism to the Indian reactionaries in their aggression on and expansion into Pakistan.

The people's Daily article of 7 December 1971 also accused the Soviet Union of trying to take advantage of the "aggravation of the Indo-Pakistan situation to further control India and expand its sphere of influence in the sub-continent and the Indian Ocean.[30] Meanwhile China continued to support Pakistan and Oppose India within and outside the United Nations. The Chinese representatives in the United Nations proposed a draft resolution in the Security Council on 5 December 1971 "strongly condemning the Indian government's acts of creating a so-called 'Bangladesh" and of subverting, dismembering, and committing aggression against Pakistan and called upon India and Pakistan to 'cease hostilities' and to withdraw respectively from the international border between India and Pakistan.[31] The Chinese media lavishly praised the U.N. General Assembly resolution calling for a ceasefire and troop withdrawal by both India and Pakistan which was passed by 104 to 11 votes with a few abstentions. Hsinhua said that the voting in the General Assembly "showed" that "soviet revisionist social-imperialism and Indian expansionism were under attack from all sided at the General Aasasembly.[32]

As the war progressed in the sub-continent, China continued her war of words against the Soviet Union and its ally, India. The Bangladesh issue faded into the background so far as the Chinese were concerned. They consistently regarded the problem as the result of a Soviet bid to fish in troubled

waters. Why does the Soviet Union support India in the Bangladesh crisis, posed the Chinese and answered by quoting Lenin, "because it is good business, It is, "the Chinese pointed out, "a good business' for Soviet social-imperialism to generously 'aid' India and now to energetically support and abet India in its aggression against Pakistan. Its aim is to further control India, and as the next step, control the whole of the indo-Pakistan sub-continent and the Indian Ocean, to encircle China, and to contend with another superpower for world hegemony.[33]

On the 16th of December as the Pakistan armed forces in East Bengal unconditionally surrendered to the allied Indo-Bangladesh forces and East Bengal became free from Pakistan occupation forces, the Chinese government issued a statement which blamed India for launching a "war of aggression against Pakistan on 21 November 1971 with active encouragement and energetic support of the government of the Soviet Union." It said "henceforth there will be no tranquility for it [the Indian government] on the South Asian sub-continent. He who plays with fire will be consumed by fire. The Indian expansionists and their backstage manager will surely eat the bitter fruit of their making[34]

China's suspicion of and opposition to the Soviet Union and its ally India was the most powerful determinant of her stand on the Bangladesh question. There was, no doubt, an element of gratitude present in the Chinese Support of Pakistan government and opposition to the East Bengali secession form Pakistan. During the years 1963 and 1971 when neither the Soviet Union nor the United States was friendly to China and India was an adversary, the government in Islamabad served vital state interests of China. Islamabad provided Peking with an air route to Africa and the Middle East at the period and also shared Russia and India as common enemies.

But it was more than gratitude and shared basic state interests that impelled China in 1971 to staunchly back Pakistan in her struggle against the East Bengali separatists. The factors that caused China to back Pakistan solidly and oppose India in the Bangladesh issue were related to her "national security and territorial integrity."[35]

In the words of a contemporary analyst: "With Russian arms ranging form China's northeast to her southwest and with the Russian navy anchoring to the south, the Soviet Union's long term project (as Huang Hua called it) of forward encirclement of China was succeeding. A Bangladesh dependent on India militarily allied to the Soviet Union continued this threatening process.[36]

A survey of China's activities with regard to the East Bengali struggle during 1971 shows that both China's support for Islamabad and opposition to Bangladesh consisted to little more than an intense, if also interesting, war of words with some limited diplomatic maneuverings and arms supply to Pakistan. China's role in the 1971 East Bengali struggle against Pakistan was thus far less decisive than of the Soviet Union.[37]

During the years immediately following the both of Bangladesh China's refusal to accord formal recognition to the newborn state continued. She even initially opposed the entry of Bangladesh into the United nations, making it clear that she would continue to do so until and unless the 90,000 Pakistani soldiers captured in Bangladesh and kept in India as prisoners of war were repatriated and the unfinished business of the 1971 Indo-Pakistan war in Bangladesh was settled. Thus in August 1972 China exercised her veto in the UN Security Council to block the entry of Bangladesh into the United Nations that year. However, following the recognition of Bangladesh by Pakistan on 22 February

1974 and the agreement to repatriate the Pakistani POW's form India, China in September 1974 desisted form vetoing Bangladesh's entry into the world body and enabled Bangladesh to become a member of the United Nations.

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EFFECTS OF DIGITAL INDIA ON INDIAN ECONOMY

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"In the digital age,we have an opportunity to transform lives of people in ways that was hard to imagine a couple of decades ago" **–Shri Narendra Modi**

INTRODUCTION

Digitization is a process of converting the diverse forms of information, such as text ,sound, image or voice into digitized format .The digitization has a proven impact on economy and society by reducing unemployment ,improving quality of life and boosting access to knowledge and other public services. It is a well-known fact that digital India is the outcome of many innovations and technological advancements. These transform the lives of people in many ways and will empower the society in a better manner. The motive behind the concept is to build participative, transparent and responsive system.

Digital India is a creative idea of **Mr. Narendra Modi's government.** It was launched on **2nd July** 2015.His programme to "transform India into a digitally empowered society and knowledge economy". In the speech, Modi announced that "IT + IT = IT" or, as he elaborated, "Indian Talent + Information Technology = India Tomorrow.".It is an initiative of government of India to incorporate the administration Departments and the general population of India. It aims to make Government administration accessible to citizens electronically by reducing paper work. The initiative consists plans to connect rural areas with high speed internet networks and to transform the country into digitally empowered knowledge economy. The program intertwines together a number of ideas and thought into a single, comprehensive vision so that each of them is seen a part of larger goal. It is coordinated by Deity, executed by the entire government- both at the centre and state. Electronic commerce denotes to 8 wide ranges of online business activities for products and services. E-commerce is the practice of electronic communications and digital information processing technology in business transactions to create, reform and redefine relationships for value creation and risk management between organizations and individuals.

The project purposes to connect the 2.5 lakh villages across India through broadband highways, public internet access, universal access to mobile connectivity, e-governance, e-kranti, information for all, a sturdy electronic manufacturing regime, early harvest programs, and IT for jobs-conferred as the nine pillars of Digital India. The cost of this project is valued at Rs 1,13,000crore. The Digital India Advisory Group will be chaired by the Cabinet Secretary and monitored by the Prime Minister and his office. Today, the world has transformed from knowledge know-how to techno knowledge savvy. Everything is available and accessible in one click. Digital India as well is a step by the government to inspire and connect Indian Economy to such a gen savvy world. The program tends to make

Government administrations accessible to individuals carefully and delight in the most current data and mechanical advancements. It brings out different plans like E-Health, Digital Locker, E-Sign, and e-Education and so on and across the country grant entry. The program sees client and specialist organization similarly. The consumers will be benefited by way of saving time, money, physical & cognitive energy consumed in lengthy government courses. It also looks after public accountability through mandated delivery of government's services timely and electronically; a Unique ID and ePramaan based on authentic and standard based interoperable and integrated government applications and data basis. Digital India is a flagship dream project of the government for the citizens and Industries of India which could help in connecting the various past and present projects to bring India to the stage of global economies. It will attract investment in all product manufacturing industries. Andhra Pradesh is the first State to have opted this implementation. The Digital India project purposes to transform India into a digital economy with involvement from rural or urban areas and businesses. This will ensure that all government services and information are available everywhere, whenever, on any device that is highly accessible and secure. Digital India Project bridges the gap between the rural and urban India.

OBJECTIVES OF THE STUDY

1. To know how the e-governance process takes the help of technologies and connectivity to improve standard of living of the people.
2. To find out how the government services can work effectively with practical solution projects and innovative ideas to translate the vision of a digital India.
3. To find out the effects of digital India on Indian economy.
4. To draw out some necessary suggestions to make Digital India fruitful.

RESEARCH METHODOLOGY

The study is based on the secondary information. Sources for the secondary data are originated from the various sources like newspapers, books, journals, magazine articles, and media reports.

DIGITAL WORLD AND DIGITAL INDIA

In the Global Information Technology report 2016 published by World Economic Forum India Ranked at 91st position in Network Readiness Index among 139 countries slip down by 2 positions in the overall ranking. The change is marginal but this drop is an indicator of our slower pace than other countries. In the overview given the World Economic Forum, the lack of infrastructure (based on which it is ranked 114th) and low levels of skills among the population (101st) remain the key bottlenecks to widespread ICT adoption, especially in terms of individual usage (120th). A third of the Indian population is still illiterate (95th) and a similar share of youth is not enrolled in secondary education (103rd). India's performance in terms of providing online services and allowing e-participation has so far been in line with that of peer countries, but not the global best. Only 15 out of 100 households have access to the Internet and mobile broadband remains a privilege of the few, with only 5.5 subscriptions for every 100 people. This is in spite of the fact that affordability has long been one of the strengths of the Indian ICT ecosystem, with the country ranking 8th this year in this area. There is a deep divide that persists between well-connected metropolitan hubs and remote rural areas, where even the most basic infrastructure is insufficient. The Digital India initiative started by our honourable Prime Minister

Mr.Narendra Modi is one of the necessary steps needed for our economy to compete with the digitalization transition going on around the world and aims to close the gap by fostering investment in digital infrastructure, improving digital literacy, and increasingly providing online services to citizens.

VISION OF DIGITAL INDIA

The vision of Digital India program is inclusive growth in areas of electronic services, products, manufacturing and job opportunities etc .Aim of Digital India is centered on 3 Key Areas.

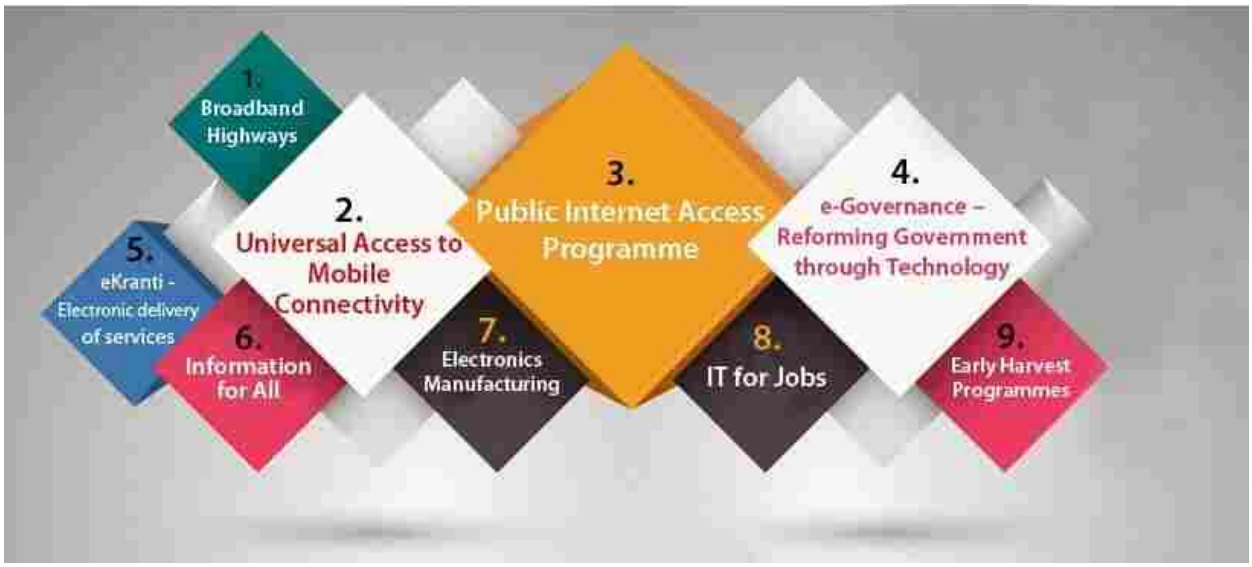
The Digital India umbrella is centered on three vision areas viz. Digital Infrastructure; Digital Empowerment and Digital Governance.

Digital Infrastructure this include availability of high speed internet for delivery of core services to citizens, banking accounts with mobile banking, access to common service centers, shareable private space on public cloud and safe cyberspace.

Digital Governance this includes access to services of all government departments through digital or online platforms; use of digital technology for e-governance, decision support systems and development.

THE NINE PILLARS OF DIGITALIZATION

Digitalization transition through Digital India Programme aims to provide the much needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology, eKranti - Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes. Every pillar has its own importance, complexities in implementation and is a propellant for the overall growth of the country .Nine pillars of the digitalization are:



1. Broadband Highways:

   It covers three components broadband for all rural, broadband for all urban and National information infrastructures.

2. **Universal Access to Mobile Connectivity:** It focuses on network penetration and filling the gaps in connectivity in the country.
3. **Public Internet Access Programme:** To provide Common Services Centres (CSCs) and Post Offices as multi-service centres.
4. **e-Governance: Reforming Government through Technology:** Government Process Reengineering using IT to simplify and make the government processes more efficient is critical for transformation to make the delivery of government services more effective across various government domains and therefore needs to be implemented by all Ministries/ Departments.
5. **e-Kranti :** Electronic Delivery of Services: The Government approved the National e-Governance Plan (NeGP), comprising of 31 Mission Mode Projects (MMPs) and 8 components. e-Kranti is an essential pillar of the Digital India initiative and there are 44 Mission Mode Projects under e-Kranti, which are at various stages of implementation.(includes Banking, Post office, Income tax, Land records, Agriculture, Gram Panchayats etc.)
6. **Information for All:** Online hosting of information & documents to facilitate open and easy access to information for citizens.
7. **Electronics Manufacturing:** It focuses on promoting electronics manufacturing in the country with the target of NET ZERO Imports by 2020 as a striking demonstration of intent.
8. **IT for Jobs:** It focuses on providing training to the youth in the skills required for availing employment opportunities in the IT/ITES sector.
9. **Early Harvest Programmes:** It consists of those projects which are to be implemented within short timeline.

DIGITALIZATION AND DEMONETIZATION

Digitalization is a boon and needs to be utilized properly with the recent case of demonetization we can assess that it has helped people during the demonetization from Nov. 8 2016 to Dec. 31 2016 when the country faced cash crunch, when Rs. 500 and Rs. 1000 notes were scraped and new currency was circulated in replacement of old notes. This step not only shook the tax evaders but also pushed India to become more digitally sound country and has also highlighted the benefits and need to go cashless (or have a less cash based economy).Demonetization has also increased the transactions from mobile wallet and digital payment channels. Paytm said it hit a record of 5-million transactions a day, processing Rs.24,000crore worth of payments, less than a week into the Indian government's decision to demonetize Rs.500 and Rs.1,000 notes making it the largest digital payments company in the country. It may be seen as a temporary phase but the ease of access and availability has made more of a good alternative than the paper or plastic money. With the adaptation of technology in the banking sector more and more transparency came in the flow of money in the economy.

Pradhan Mantri Jan Dhan Yojana gave push to financial inclusion that everyone whether from urban area or from rural area should have a account so that everyone is connected in the economy and demonetization led to the operationalization of Jan Dhan accounts which were opened under the scheme.It also had multiple benefits like people who did not had the identity proofs registered themselves for Aadhar card and other identity proofs and will also help in direct transfer of benefits to the concerned person. Digitalization in this situation helped to have a virtual access to the money and with the concept of e-kranti in the banking sector it will become easier for the people to avail the financial services provided by them. Having a bank account is not the only matter of concern but also having the knowledge that how their money gets affected by economic situation of the country and various other factors for having a control over their finances is also important. When people are financially literate, they are more likely to explore the products and services offered by banks and use them for their benefits. This accelerates the pace of financial inclusion, where everyone can access the basic banking facilities rather than relying on the orthodox systems of money market such as borrowing money from money lenders on illogical interest rates. Financial inclusion and financial literacy are two essential ingredients of an efficient economy. Thus financial literacy is what also needs the attention of the masses and with all the latest advances happening around, it is becoming a matter of prime concern. Financial education is "the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being." The financial literacy level majorly depends upon the education and income of the individuals; the social factors such like family size, family background, age, regions nature of employment have a little impact on this. With the digitalization there is an ease of access to the money as the banking system has evolved with the time and provides the customer with different facilities like online payment of their monthly expenses such as electricity bills, payment of premiums etc. With all this growth and development people need to be aware about the problems associated with digitalization of finances.

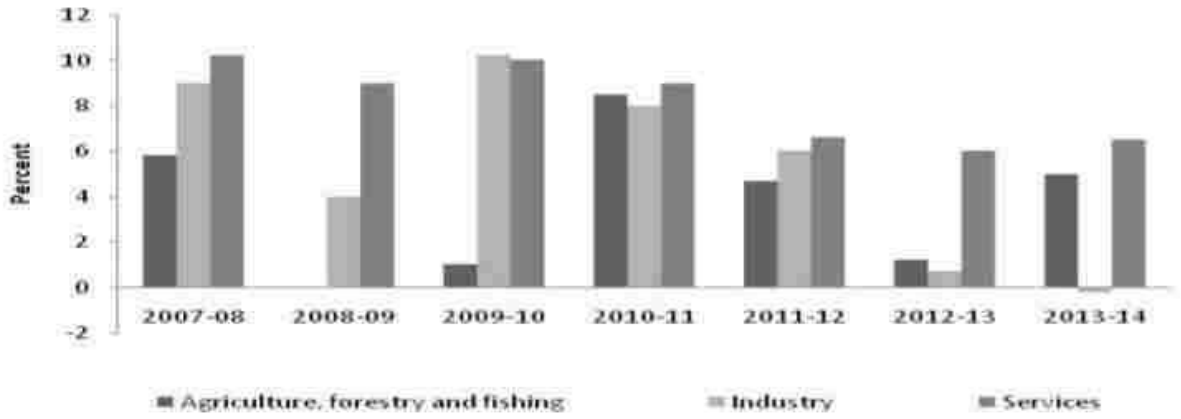
EFFECTS OF DIGITALISATION ON INDIAN ECONOMY

The expected impact of Digital India would be cross cutting, ranging from broadband connectivity in all Panchayats, Wi-Fi in schools and universities and Public Wi-Fi hotspots. The programme will generate a huge number of IT, Telecom and Electronics jobs, both directly and indirectly. The success of this programme will make India Digitally empowered and the leader in usage of IT in the delivery of services related to various domains such as health, education, agriculture, banking, etc. Digital empowerment of citizens will pay emphasis on universal digital literacy and availability of digital resources/services in Indian languages. The programme will be implemented in phases from 2014 till 2018. The source of funding for most of the e-Governance projects at present is through budgetary provisions of respective ministries/departments in the central or state governments. Requirements of funds for the individual project(s) for Digital India will be worked out by respective nodal ministries/ departments.To implement this government is planning to strengthen National Informatics Center (NIC) by restructuring it to support all central government departments and state governments.

A.IMPACT ON AGRCULTURAL SECTOR

The division among various sectors, i.e., agriculture, industry and services; regarding contribution to the GDP of Indian Economy has been as shown in the following figure.

Figure 1. Sectoral real GDP growth



Source: Reserve Bank of India – Annual report, July 2013 – June 2014

Agriculture sector India is an agriculturally dominated country; approximately 49% is engaged in agriculture and allied activities. The agricultural and allied activities output accounted for approximately 14% in 2014-15, calculated at the prices of 2004- 05. India is placed at 2nd rank in the world in terms of agricultural output.

Digitalisation will lead to the improvement of the sector's performance. Indian economy depends on the agriculture sector with it being one of the three wheels driving the economy. Automation can help in improving performance by:

1. Availability of information – Automation of the sector will lead to the availability of timely and accurate information. Timely and correct information about soil, fertility, seeds, weather conditions, other inputs, expert opinions, etc. will help farmers in trading efficiently. Reliable information can be provided to the farmers due to improved effectiveness of Agricultural research and development.

2. Better employment – Digitalisation will lead to better utilisation of human man power in the sector. There is over employment in agriculture and if the performance of the sector is improved as a whole then the same work can be done by less people and the remaining manpower can be employed in other productive activities thereby increasing GDP as a whole is shown in Figures .
3. Price control and cost cutting – Timely and correct information about prices, inputs as well as outputs, in different markets, and cutting of costs due to better utilisation of resources, will lead to increased profits in the sector.
4. Infrastructural development and irrigational facilities – Digitalisation will lead to better infrastructural facilities like warehouses, green houses, ease in transportation and storage of produce that will increase the life of the produce. Indian agriculture depends a lot on monsoon. Digitalisation of the sector will provide farmers with better irrigation facilities and less dependence on monsoon.
5. Increased returns and investment – Better agricultural facilities will lead to increase agricultural produce there by increasing the returns of the sector. Good prospects for the sector will lead to increase in investment.
6. Agricultural literacy – With the help of automation, farmers have increased access to the information they require or any knowledge they want to acquire regarding farming. This increases the level of agricultural literacy in the country thereby improving the future prospects for agriculture. To increase the contribution of agriculture sector in the economy and to motivate farmers to move towards better farming skills, Indian government is taking various initiatives like, kissan credit cards, soil health cards scheme, e-NAM (National Agriculture Market), My Village My Pride scheme, etc

Some mobile applications and web portals have also been developed to help the farmers by automatizing some services. Like kisan suvidha, pusha krishi, India weather, m-kisan portal, crop insurance portal, e-mandi, etc . The government has also renamed the Department of Agriculture and Cooperation, as the Department of Agriculture, Cooperation and Farmers Welfare, on Independence Day 2015.

B.IMPACT ON INDUSTRIAL SECTOR

The Government of India aims at digitalising the sector to improve sectoral performance, so as to increase the share of the sector in GDP and also the increasing returns in the sector will lead to increase in the overall growth rate of GDP and economy itself. The automation of the sector will lead to:

1. Ease in purchase and inventory control – The procurement of raw materials will become an easy and effective process by automation. One can procure the desired quantity and quality of materials at competitive prices. Systems like JIT (Just In Time) inventory system, ABC, EOQ (Economic Order Quantity) system, as well as automation of ordering, billing and payment systems, leads to better inventory control, thereby reducing inventory management costs. The supply chain management will function smoothly.
2. Wider customer base and market reach – Customer base for goods is increasing due to availability of products through various online sources like online shopping portals, i.e., myntra, jabong, snap deal, or company's web pages, i.e., reliance trends, woodland, pantaloons, Adidas etc. Due to the omnipresent nature of internet, the producers can reach their customers in every nook and corner of the world within seconds, thereby expanding the markets to no bounds.

3. New product mix and product innovation – The product mix of the industrial sector is undergoing changes as more preference is being given to the FMCG and technological products. New kind of products will also be introduced having both physical and digital characteristics. This will lead to a new era of product development .
4. Trade relations and competition– Supplier-producer, producer-customer, labour-management, intermediary relations as well as all other trade relations become cohesive due to increased transparency in trade. The competitive structure will change due to increased foreign competition after liberalisation, increased efficiency due to privatisation and opening of new markets due to globalisation. A healthy competition will result in better quality products at reasonable prices, benefitting the consumers.
5. Employment variations – The employment scenario will be dual impacted. On one hand, digitalisation will lead to unemployment because of machines replacing man power. And on the other hand, new jobs will be created as the sector will move towards growth and expansion. The job requirements and specifications will change with the changing scenario.

C. IMPACT ON SERVICE SECTOR

The services sector occupies the largest share in GDP, about 58% in 2013-14, in India. The service sector has shown the highest rate of growth in India from approx. 34% in 1950-51 to approx. 58% in 2013-14. It provides 27% of the workforce with employment. IT (Information Technology) and BPO (Business Process Outsourcing) are two of the fastest growing services in services sector. [1] E-commerce and Banking are also picking pace these days with new online services and facilities available. Digitalisation of economy throws open huge opportunities for this sector to grow as this sector benefits the most by digitalisation movement .

Services are invisible in nature. There is no physical product but services are rendered to people. Digitalisation has the most impact on service sector as digitalisation of services improves their effectiveness to a large extent. It fastens the processes and activities and leads to better satisfaction among customers due to increased ease in availing these services.

The impact of digitalisation on some of the services in India is:

1. Information Technology and BPOs – IT and BPO are the fastest growing services in the country. It is because of the increased exports of the services outside India. There are also huge employment opportunities in these. The automation of various processes increases the efficiency and effectiveness of these services .
2. Aviation – The facilities like online booking of tickets, online passport application through Passport Seva Kendras, price discounts on advance bookings, FDIs, increased tourism due to online marketing of tour packages, reduced ticket costs due to increase in competition, etc., has led to an unforeseen growth in aviation sector.
3. Educational Sector-The poor literacy rate in India is due to unavailability of physical infrastructure in rural and remote areas. This is where m-Education services can play an important role by reaching remote masses. According to estimates, the digital literacy in India is just 6.5% and the internet penetration is 20.83 out of 100 population. The digital India project will be helpful in providing real-time education and partly address the challenge of lack of teachers in education system through

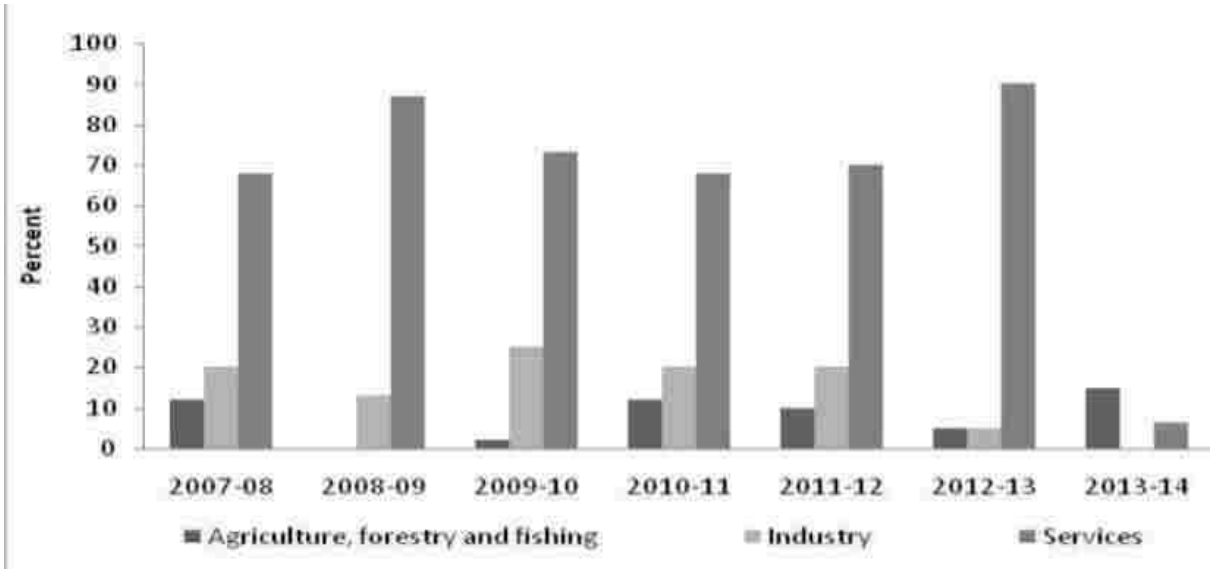
smart and virtual classrooms. Education to farmers, fisher men can be provided through mobile devices. The high speed network can provide the adequate infrastructure for online education platforms like massive open online courses (MOOCs). Application of digital methods to education enhances the learning processes for students, teaching experience and ease for teachers and the overall learning procedures. Ease in availability of information and knowledge leads to a better educated society and enhances the standard of living in general.

4. Retail sector - Retail is growing after digitalisation of services like online bill payments by card swiping, online shopping sites and web pages, online marketing, cost discounts on some particular cards etc.
5. Banking Sector-Mobile and internet banking can improve the financial inclusion in the country and can create win-win situation for all parties in the value-chain by creating an interoperable ecosystem and revenue sharing business models. Telecom operators get additional revenue streams while the banks can reach new customer groups incurring lowest possible costs .The increased ease in performing banking activities and managing bank accounts due to numerous digitalised facilities provided by banks like, mobile banking, NEFT, online banking, etc. has improved the future growth prospects for the banking sector. Getting loans and financial assistance has also become easy and cost effective due to digitisation of the sector.
6. Healthcare Industry- Factors such as a burgeoning population, poor doctor patient ratio (1:870), high infant mortality rate, increasing life expectancy, fewer quality physicians and a majority of the population living in remote villages, support and justify the need for tele medicine in the country. M-health can promote innovation and enhance the reach of healthcare services. Healthcare industry benefits by digitalisation in the form of bill payments, keeping records of patients, tracking files, discussing cases with other doctors, getting treatments from far away situated doctors, availability and procurement of medicines online, free consultation services, etc.
7. Electricity sector - Online bill payment, refunds, automated meter readings, etc. has benefitted the electricity sector. It's a relief for citizens to not stand in lines for bill payments.
8. Infrastructure - Infrastructural developments pick up pace with the help of digitalisation. It saves a lot of paper work, man power, time and cost savings, etc. The infrastructural development of will develop the economy as a whole.
9. Entertainment industry - The availability of all kind of entertainment media files online has on one hand given a boost to the industry and on the other hampered it by issues like piracy, hacking, leakages, etc.
10. Telecommunications -Telecommunication sector is growing speedily after the introduction of new technologies in the sector like, smartphones, tablets, i-pads, android systems, windows operated systems, etc., various online applications, availability of internet connectivity through phones, have enhanced the future opportunities for growth in the sector.
11. E-commerce - e-commerce sector is growing at a rapid rate as the whole thing is based on digital equipment, processes and techniques. Digital enhancement is the utmost requirement for e-commerce to grow. Availability of wide range of products from food to clothing to jewellery to electronics to home furnishing, etc.,

12. Insurance - People are becoming more and more aware of the advantages and benefits insurance provides and hence the sector is growing continuously. Also, digitalisation of services like premium payment, policy comparisons, availability of important information, etc., has made the process much simpler.
13. Tourism -Tourism is growing by various measures taken by government to make the stay pleasant for the tourists. Also, digitalisation of economy is resulting in increase in the tourists in the country because of the ease .

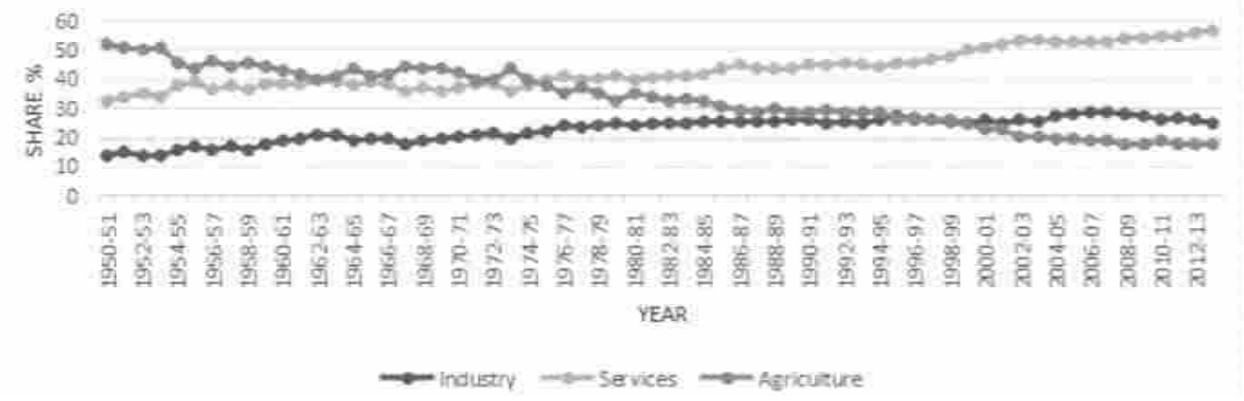
The service sector contributes the most in the overall GDP of the country, though the manpower employed in the sector is quite less compared to other sectors. If more efforts are put in the growth of the sector, the resulting development of the economy will also be huge, registering the country from the developing economies to developed economies. delivery, easy returns, etc. has spiked the interest of shoppers in online shopping

Figure 2. Relative contribution to real GDP growth



Source: Reserve Bank of India – Annual report, July 2013 – June 2014

Figure 3. Sector wise contribution of GDP of India (1950-2014)



Source: Statistics times

D. ENVIRONMENTAL IMPACT:

The major changes in the technology space will not only brought changes to the economic system but will also contribute to the environmental changes.

The next generation technologies will help in lowering the carbon footprint by reducing fuel consumption, waste management, greener workplaces and thus leading to a greener ecosystem. The ICT sector helps in efficient management and usage of scarce and non-renewable resources.

Cloud computing technology minimizes carbon emissions by improving mobility and flexibility. The energy consumption can be decreased from 201.8 terawatt hour (TWh) in 2010 to 139.8 TWh in 2020 by higher adoption of cloud data centers causing a 28% reduction in carbon footprint from 2010 levels.

DIGITALIZATION AND GDP GROWTH

According to analysts, the Digital India plan could boost GDP up to $1 trillion by 2025. It can play a key role in macro-economic factors such as GDP growth, employment generation, labor productivity, growth in number of businesses and revenue leakages for the Government. As per the World Bank report, a 10% increase in mobile and broadband penetration increases the per capita GDP by 0.81% and 1.38% respectively in the developing countries. India is the 2nd largest telecom market in the world with 915 million wireless subscribers and world's 3rd largest Internet market with almost 259 million broadband users. There is still a huge economic opportunity in India as the tele-density in rural India is only 45% where more than 65% of the population lives. Future growth of telecommunication industry in terms of number of subscribers is expected to come from rural areas as urban areas are saturated with a tele-density of more than 160%.

Impact of digitalization on a country can be assessed on the basis of its impact on the government, on the economy and the society. We have seen a major change in every sector with the emergence of digitalization. The digitalization has created new job opportunities, have led to innovation in very sector and also led to the growth of the economy i.e. have helped in the GDP growth of the country. According to a recent McKinsey report, the realisation of Digital India will help the country with 20-30% incremental GDP by 2025. The adoption of technology across key sectors like financial services, healthcare, agriculture, energy, infrastructure and education will provide an additional impact of $550 billion to $1 trillion on the India economy annually by 2025.The government has emphasized on the digitalization as it brings transparency, better control, better job opportunities, it also provides an ease of access to the people and an upward movement in their quality of life. The study conducted by Strategy&(formerly known as Booz and Company)Shows that the increase and effective utilization of digitalization can increase their GDP. They analyzed that constrained economies realize a 0.5% increase in GDP per capita for every 10% increase in digitalization, while advanced digital economies show a 0.62% increase in GDP per capita for every 10% digitalization increase.

BENEFITS OF DIGITAL INDIA PROGRAMME

It is a scheme to empower people of the country. Main benefits of this programme are:

1. The digital India mission would lead to inclusive growth by enabling access to education , healthcare and government services to all the citizens of the country through common service delivery outlets.
2. Online availability of data will lead to more transparency.

3. E-Governance will help in reducing corruption.
4. Digital locker facility will help citizen to digitally store their important documents like Pan Card, passport, mark sheets etc. It will help in decreasing documentation and paper work.
5. This will lead to a cashless society.
6. The programme would generate giant demand for IT, electronics and telecommunication personnels.
7. According to World Bank report a 10% increase in mobile and broadband penetration increases per capita GDP by 0.81% and 1.31% respectively in developing countries. So, it can play a key role in GDP growth.

OBSTACLES IN THE PROCESS OF DIGITALIZATION:

1. The resistance to change people show during emergence of new technology.
2. Building trust among the people for change is difficult.
3. Lack of knowledge about its use and benefits.
4. Infrastructure requirements and their unavailability also hamper the reaching of these basic facilities to the people.
5. The basic hindrance is the lack of literacy and literacy is not just to be able to write ones name and do the signature but to have an understanding of the changes going in the technology, society and the country for their own betterment

CHALLENGES BEFORE DIGITAL INDIA INITIATIVE

Many people in rural areas have no Internet connection, and also the content in regional languages is not sufficient to keep the readers engaged. Only 15% of the households can access the Internet, and few people can access mobile broadband. This scenario is despite the increasing affordability of ICT environment in the country. According to World Economic Forum (WEF) 2016 report, nearly 33% of Indian population is functionally illiterate, one-third of youth do not attend secondary education. There are vast differences in urban centers such as metropolitan cities and remote rural areas, where an even basic service for example electricity is unavailable to run the Digital India program. India's growing economy and digital push have caught the attention of hackers and an increasing wave of cyber attacks could soon badly impact the country. India and other South Asian countries are now on the radar of cyber attackers. The government and corporate world need to procure state-of-the-art, New Age security solutions to thwart their plans. It is not only a technological question but also deals with the question of privacy and security.

The biggest challenge faced by 'Digital India' is the slow and delayed infrastructure development. Spectrum availability in Indian metros is about a tenth of the same in cities in developed countries. Challenges are in every area right from policy making, changing the work flow up to changing the mentality of the government officers. It is technological change within the most diversified nation. Within the government there are various departments which should be integrated. There is an active involvement of various departments such as telecommunication, justice, finance and planning, health department etc. Without a smooth teamwork between them, this mission would never be implemented to its full strength.

For digital technology to be accessible to every citizen, significant efforts are needed to customize apps and services to cater to local needs. Finding vendors who can provide such applications has become a challenge. Though there are resources with India but there is a huge capital cost which is to be invested and the fruits of the investment will be received after few years. Net neutrality is must and it is important to understand that digital India without net neutrality would be a great blow to entrepreneurs and citizens of India.

India is a diversified country, in terms of language, culture, laws which vary from states to states. Complete integration, that is integration of technology and language, is one of the main challenges. The Centre's ambitious Digital India program is facing multiple challenges in successful implementation due to lack of clarity in policies and infrastructural bottlenecks, according to a joint report by Assocham Deloitte. For Digital India to have a large scale impact on citizens across the nation, the digital divide needs to be addressed, considering the importance of connectivity issue in remote rural areas, as currently over 55,000 villages remain deprived of mobile connectivity. This is largely due to the fact that providing mobile connectivity in such locations is not commercially viable for service providers.

CONCLUSION

The digitalization brings innovation, ease of working, new job opportunities and growth in the economy. It helps to bring transparency in the system and more transparent are the flow of funds in the economy less is the problem of tax evasion, parallel economy etc. But with all these benefits available it also makes it necessary for the people to have basic financial knowledge and a push towards the importance of the financial literacy. With the help of which they can protect their money in situations like inflation, depression, and know about different financial products and services to save it for their better future. Digitalization can also play an important role in achievement this goal as it can have a greater reach to the people. By this we can reach on a conclusion that the new technology needs to harnessed well and for this it is not only the availability but also the knowledge to use it and get benefits from it.

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INFLUENCE OF DIGITALIZATION IN INDIA ON INDIAN RETAIL INDUSTRY

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Introduction

The world of retailing continues to change rapidly as interaction between the physical and the digital world opens up new business opportunities and challenges that were hard to imagine just decade ago. The retail industry is being driven by a new, dynamic, global transformation that further adds to the general competitive nature of the retail industry. This transformation has been set in motion by greater adoption of the Internet by the general public on a global scale which has forced retailers to develop e-commerce strategies and incorporate the multi- channel approach into their business models. Another contributing factor is the rising sales and penetration of smart phones and tablets worldwide that enable customers to stay connected to the Internet even outside of their homes or workplace. Other contributing factors are the increasing number of global population and purchasing power of people, especially middle-class people, living both in developed and developing countries. Nowadays, consumer enjoy, and perhaps are even inundated, by a wide selection of services, products, brand, shopping choices and shopping channels in the form of legacy bricks-and-mortar stores, flagship stores, departmental stores, catalogue shopping, TV shopping, on-line shopping, mobile shopping and other online shopping electronic systems.

Review of Literature

A solid business model is vitally important for the success of each company irrespective of its size, products or services it sells or an industry sector the company competes in. Developing a clear idea of a business model is just as important step for a new venture as it is for an established marked player. Success of the current business model may render managers reluctant to change the logic of how value is created and appropriated. Nevertheless, past success does not necessarily translate into future profitability. Solid business models elevate some companies to such a position where they surpass their competitors by offering greater value to a common group of customers. Innovating in a company's business model with success has been identified as a necessary managers' ability due to external market forces, rising competitive pressures, shifts in economic power from western developed countries to emerging markets, and relentless changes in customer tastes and preferences. Moreover, business model innovation may not always be industry disrupting but still create significant benefits to the company in incremental steps. Therefore, business model innovation is, arguably, the best option for the company to grow the market share and increase profits while the application of modern technology forms an inseparable aspect in this regard.

Meaning of Transform Retail Industry

Technology plays a critical role in the area of business model innovation as it can streamline the company's internal activities and connections with partners, expand the company's boundaries and engage its customers in a new and uncommon way. Business model innovation, in its essence, sets in place the logic for competing effectively in existing and new markets and technology serves as an enabler to get closer to customers.

In the retail industry, transaction between retailers and customers are more personal as retailers engage directly with customers. The strength of these interactions is dependent on the customer experience retailers can create for their customers rather than on the goods and service sold to them. A purposeful focus on elevating the customer experience is an internal driver that prompts retailers to select innovative techniques to strikes the best balance between their back-office activities, and physical and digital environments.

Certainty of Growth

Overall Indian retail projected to double to $1 trillion by 2020 from $600 billion in 2015

- Retail market expected to grow by 12 percent in line with historical trends. Rapid growth in retail driven by four factors
- Income growth:- 3 times increase in average household income from $6,393 in 2010 to $18,448 in 2020.
- Urbanization:- 40 percent population to live in urban cities by 2020, up from 31 percent in 2010.
- Nuclearization:- Over 200 million households to be nuclear by 2020-with 25-50 percent higher consumption per capita spend.
- Attitudinal shifts:- 75 percent of population by 2020 will belong to Generation I with markedly higher consumption levels.

Modern trade expected to grow 3 times to $ 180 billion by 2020 from $60 billion in 2015.

- Traditional trade projected to grow at 10 percent per annum.
- Modern trade projected to grow at almost twice this place.'

Three key trends to drive this growth in modern trade

- Rapid consumer evolution:- Greater brand recognition, trading up, need for modern shopping environment.
- Supply-side evolution:- New entrants, new formats and differentiated strategies.
- Positive regulatory environment:- Reduction of multiplicity of taxes, promise of increasing ease of doing business.

Challenge of Capability

- Customers do not distinguish between online and physical channels while shopping, but expect seamless experiences.
- Traditional strengths and expertise in retail insufficient to deliver quantity omni-channel experiences.

Well conceptualized talent management strategy critical to revitalize customer journey across channels.

- High attrition at the front-end as opportunity sets expand for individuals.

- Limited capabilities in the middle and top management due to Inadequate specialized training and depth of experience in the sectors.

Supply chain requires evolution as modern trade grows exponentially

- Low end-to-end visibility of inventory flow, results in long lead times to respond to demand.
- Infrastructure challenges make physical execution difficult.

Need for Transformation

In the spirit of retrospect, reinvent and rewrite, retailers should aim for fundamental transformation, not incremental changes

- Optimally avail the remarkable growth opportunity.
- Operate in the new digital reality serving empowered consumers.
- Build capabilities in quality omni-channel experience, talent management and supply chain optimization.
- Recognize the importance of economics and prioritize profitability.

This requires working on four pillars simultaneously

- Fund the journey:- Generate cash quickly from existing operations by relooking at core business.
- Win the medium term:- Identify the truly winning consumer proposition for the 6-8 years and align the operating model.
- Take measured bets:- Invest in 2-3 emerging but important trends.
- Enable the transformation:- Invest in people and technology to improve efficiency, productivity and morale

Objectives of the Study

Technological developments are potential drivers of innovations in retail business models that affect the retail industry from the outside and that may lead to the design of new ways of creating and distributing value. Moreover, reason that new business models, based on multiple channels and self-service technologies, are created as a result of information and communication technology permeating businesses which are at the center of this study. To sum up, the objectives of this study are to:-

- Introduce and explain the domain of business models to the reader, potentially retail store and retail chain managers.
- Relate that domain to examples of retail business model innovations carried out by selected retail companies.
- Identify and describe those digital technologies that present retailers with business opportunities and customers with enhanced shopping experiences in physical stores.

Conclusion and Suggestion

Technology is a driving force of change and the case discussed in preceding sections offer a number of lessons in terms of business model innovation as a springboard to a sustained competitive advantage. Primarily they highlight the crucial role technology plays for retailers who want to stay relevant to their current customers and cater to the needs and wishes of new ones. The case of Burberry, among others, is an evident example of a legacy fashion retailers that has built its success on quality luxurious

fashion products and brand heritage since its foundation in 1856. Consequently, what seemed unthinkable in the first half of 2000s became reality in the second half of 2000s major luxury brands embraced the Internet as a new sales channel.

As technology adoption by retailers will surely rise across different retail formats and across multiple sales channels in the foreseeable future, it is unlikely to secure lasting competitive advantages in the long run. The reason for this proposition is quite simple. If some technology helps lower the costs of operation stores of one retailer, other retailers, especially those whose primary value proposition centers on price, will follow and adopt the technology to remain cost competitive. Those retailers, whose primary concern is an enhanced customer experience, will implement technology to reinforce their position and to further differentiate themselves from price discounters. Cost savings increased efficiency, and improved customer satisfaction will, however, lead to a growth in profitability for those retailers who quickly introduce modern technology in their stores, at least in the short run.

- Online shopping will continue to grow and, more importantly, the on-line competition will intensify as it is becoming easier to take the bricks-and-mortar retail business on-line.
- Omnipresence across channels will drive more sales if bricks-and-mortar retailers can constantly and promptly deliver on their customer's needs and wishes.
- The growth in Smartphone's and tablets shipments will only intensify as populations in developing countries increase their incomes and cheaper versions of both devices are introduce.

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EFFECTS OF DIGITAL INDIA ON INDIAN ECONOMY

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Digitalization can be describe as the use of electronic technology /tools in various fields that make the collection ,storage and processing of data and information easier and convenient .Digital India was formally launched by the honorable Prime Minister of India Mr.Narendra Modi on 1st July ,2015 .The digital India Programme has been launched with an aim of transforming the country into a digitally empowered society and knowledge economy .The Digital India ensures that Government services are available to citizens electronically.It also brings in public accountability through mandated delivery of government's services electronically .

Objectives :-

This Paper has following objectives-

- To know various effects of digital economy an Indian economy.
- To describe the various key projects those are formed under digitalization of India.
- This paper also states various challenges that are restraining India from becoming a digitalized economy.

Needs of Digital India:-

Corruption is the biggest problem in developing countries such as India .It is said a paralleleconomy flourishes side by side to our main economy .This economy is run by those who avoid paying taxes to the government .One of the main reason for parallel economy is the dependency on cash based business ,with digitalization initiatives like taxations being bought online and steps like Demonetization, the government is trying to used out corruption from our system which is expected to lead a positive impact on Indian economy in log run .

Key Projects of Digital India Programme :-

1. Digital Locker System aim to minimize the usage of physical documents and enable sharing of e-documents across agencies .The sharing of the e-documents will be done through registered repositories there by ensuring the authenticity of documents online .
2. My Govt. in has been implemented as a platform of citizen engagement in governance through a "Discuss" " Do" and " Disseminate" approach .
3. Swachh Bharat Mission (SBM) Mobile app would be used by people and government organizations for achieving the goals of this mission
4. E-sign framework would allow citizen to digitally sign a decrement online using Aadhar authentication.
5. The online Registration system (ORS) under the e-Hospital application has been introduced the application provides important services such online registration, payment of fee and appointment, online diagnostic reports, enquiring availability of blood online etc.

6. National scholarship portal is a one step solution for end to end scholarship process right from submission of student application, verification etc.
7. Deity has undertaken an initiative namely Digitize India platform (DIP) for large scale digitization Of records in the country that would facilitate efficient delivery of services to citizens.
8. The Govt. of India has under taken an initiative namely Bharat Net, a high speed digital highway to connect all 2.5 lakh Gram Panchayats of Country.
9. Ekranti:- This digital project primarily determined on digital knowledge programme that includes education health ,rights,financial are various other services which will be provided on very high bandwidth.
10. M Passport Seva:- Govt. Of India has started this App. With the help of this we can apply online for new passport or for renewal of passport, can get date of appointment from regional office, can deposit fee etc.
11. In addition to above govt. is taking initiatives like "Aadhar Card or Digital Identification for every citizen. This move expected to give unique an authentic Identification to every citizen. This step leads faster subsidy distribution and reduction of corruption etc.

Challenges of Digital India

Challenges in the way of digital India are:-

1. High level of Digital illiteracy :- This whole programme depends on internet but in India less than one fourth population have reach to internet .it can be understood with the help of following table.

Internet Contribution to GDP

Name of Country	Internet Contribution to GDP (Total GDP 2013 in %)
UK	10.1
South Korea	5.6
Japan	5.5
US	5.2
EU	5
India	3.2
China	3.1
Russia	2.9
Brazil	2.7

1. Technology and language problem also create problem in the way of digital India.
2. Lack of resources also works as speed breaker in the way of digital India.
3. Cyber security threats also create problems.

Effects of Digital India an Indian economy :-

Digitalization has played a vital role in flourishing the Indian economy the biggest example is the lakhs of jobs opportunities as well as new business opportunities created in the country .Digital transactions make us follow a legal path which is helpful to flourish the economy .Since cash is the

primary mode of transactions in money laundering and terrorism funding, a digital society would discourage such laundering and terrorism which indirectly give boost to economy to see the immediate effect of digitalization .we must look at new income tax filing and income tax return processes have been streamlined .Today you do not have to go and stand in front of an income tax officer to get an income tax refund .Digitalization has also led to reduction in cost maintaining physical records .Digitalization helps to decrease unemployment ,upgrading the standard of living better access to public facilities .

Banking sector, Financial sector and Insurance sector are the biggest beneficiary of Digitalization. Since they now have processes where less staff can do more work with less time.

Conclusion:- We are firm believer in the idea of digitalization effects on Indian economy .It may turn us into economic power house by cutting down paper work and decrease our dependence on government employees which will help cut down corruption .

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GROWTH AND PRESENT SCENARIO OF DIGITAL PAYMENTS IN INDIA: AN ANALYTICAL STUDY

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I. Introduction

The Government of our country has been taking various initiatives from time to time to promote and accelerate digital payments in the country. The vision of the flagship programme -'Digital India' of the government is to transform our country into a digitally empowered and knowledge economy which is faceless, paperless and cashless. Under digital payment system, a transaction is carried out electronically using different payment methods and does not involve any transfer of hard cash or cheque. The transactions under digital mode are settled online and the sender and receiver use different digital modes to send and receive money. Digital payment can be executed using various types of payment options like, debit card, credit card, prepaid card, internet banking, mobile banking, Point of sale Terminals, NEFT, RTGS, IMPS, e-wallet, Unified Payment Interface (UPI), **Bharat Interface for Money (BHIM)** App etc. The most important advantage of digital payment is the convenience, saving in time in making payments and lower risk. There is no need of doing any paper formalities and filling of form for making the payment and the person making the payment need not to go to bank counter to serve his/her purpose. It is also economical and cost effective as a nominal fee is charged and some payment apps offer the services at free of cost. Many digital payments app offer discounts and cash back to attract the customers. The transactions executed through digital mode are recorded electronically which can be used for future references. Apart from all these, digital payments minimises printing cost of currency and also can help the government to eliminate black money and fake currencies in circulation in the economy. In spite of having some drawbacks of the system like, difficulty in making transactions for less educated and illiterate persons, risks associated with security aspects of data and information, etc., due to a number of advantages of making payments through digital modes, **digital payments system has been becoming popular day by day among different types of users.** With the increasing number of smart phone and internet users in the country along with introduction of various new and ease modes of digital payment and governmental initiatives to promote digital payments environment in the country, the country is moving steadily from cash based economy to less cash economy. **During the period from 2011-12 to 2017-18 both volume and value of digital payments in the country has experienced a remarkable growth along with growth of various payments systems under digital mode.** The volume of digital payments in the country has reached to 15888.5 million in the year 2017-18 from only 2589.3 million in the year 2011-12 witnessing a compound annual growth 35.31% during the period. In case of value of digital payments, it has increased to 2527539 billion

rupees s in the year 2017-18 from only 1066528.5 billion rupees in the year 1011-12 with a compound annual growth of 15.47%.

II. Review of Literature

Abbigeri and Shettar (2018) in their study examined the changing trends in payments in the country and discussed various modes of payment, benefits of digital payment and preparedness of the country for the implementation of the system. The study also documented that digital payment system initiatives taken by the government and RBI have resulted in growing acceptance and deeper penetration of the system. In their study Pandey and Rathore (2018) on impact and importance of digital payment in India opine that digital payment will help to increase employment, reduce risk in handling cash and lower corruption. They also pointed out that slow internet connectivity and the additional charges over the digital transactions are the most important barriers for adoption to digital payment system in the country. In his study Rajanna (2018) analysed the growth of cashless transaction in the country and observed that digital payment provided boost to the financial inclusion through increase in the number of bank accounts. He also opine that the most important barrier for becoming cash less economy of the country is the lack of digital literacy of a vast majority of population. Sagayarani (2018) opine that for gaining the opportunity offered by digital payment system, financial literacy and education of people living in rural India need to be improved. Suma Vally and Hema Divya (2018) in their study on consumer's adoption to digital payments system suggested that to make the country cash less awareness level of the users needs to be improved. Manikandan and Jayakodi (2017) in their study conducted on mobile wallet users in Chennai city found that users of mobile wallet were highly satisfied with their transactions. They also pointed out that security issues were the major concern for its growing penetration. Shah (2017) has shown that majority of transactions in India are still executed through cash particularly in rural areas and in informal sectors. So, becoming a cash less economy for India is not possible in near future. Singh and Rana (2017) made a study on consumer perception on digital payment mode of transaction and found that perceptions of individuals differ significantly with their level of education but there is no significant difference in perception for differences in demographic profile of the individuals. Midha (2016) in his study pointed out that digitization is a great initiative to make the country a knowledge society but to attain such goal it needs to be implemented properly and remove the challenges in its implementation. Gupta and Arora (2015) suggested that digital payment system can acts as a positive driver for development of agriculture sector and promotion of entrepreneurship as well as empowerment of women in rural India. Jain (2006) argued that an efficient digital payment system can ensure optimal utilization of funds for business firms, baking and other financial institutions and individuals.

III. Objective of the Study

In the present study an attempt has been made to examine the growth of digital payments system in the country during the period from 2011-12 to 2017-18 using secondary data from different sources. The trend of digital payments in various segments during the period 2013-14 to 2017-18 also has been analyzed in the study. Accordingly the objectives of the study have been listed below:

1. To analyze growth of digital payments system in the country during the period from 2011-12 to 2017-18.

2. To examine present contribution of different payment mediums in the digital payments environment of the country.
3. To analyze trend of various digital payments segments during the period from 2013-14 to 2017-18.

IV. Database and Methodology

The study is purely based on secondary sources of data and all the data required for the study have been collected from various official websites like, Reserve Bank of India (RBI), National Payment Corporation of India (NPCI), NITI Aayog, Ministry of Electronics and Information Technology, etc. Besides, different editions of relevant journals, magazines, etc. have been consulted fort the study. For the study monthly data for 5 years from 2013-14 to 2017-18 on different aspects of digital payment have been used and for analyzing such data simple statistical tools like, yearly growth, compound annual growth etc., charts and diagrams have been employed with the help of statistical software SPSS.

V. Evolution of India's Digital Payments Infrastructure

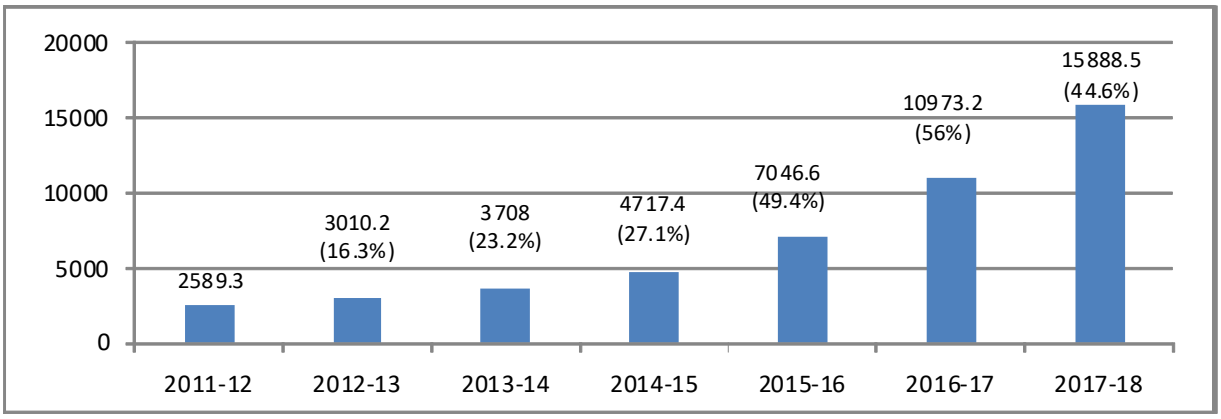
In the context our country, initiation for establishing digital payment infrastructure was started in the year 1988 with introduction of computerization of settlement system by RBI and core banking system in the year 1998. Thereafter, the system has gone through a process of improvement through introduction of internet banking, Real Time Gross Settlement (RTGS), National Electronic Fund Transfer (NEFT), mobile banking, Immediate Payment Service (IMPS), Unified Payment Interface (UPI), E-Wallets, Bharat Interface for Money (BHIM) application, granting universal baking license to new players, granting payment bank license, etc. Moreover, increasing number of smart phone users in India together with zero balance bank account contributed to a great extent towards becoming the country a paperless one. The digital payment can be executed through Systemically Important Financial Market Infrastructures (SIFMIs) and retail payments. SIFMIs cover the Real Time Gross Settlement (RTGS) and financial market clearing while retail payment segment covers paper clearing, retail electronic clearing (internet banking, mobile banking, NACH (National Automated Clearing House), NEFT, IMPS, e-wallet, etc.) and debit/credit card payments.

VI. Analysis of Growth of Digital Payments under Different Segments

Figure-1 shows growth in Digital Payments over the past seven years from 2011-12 to 2017-18. From the figure it is evident that the volume of overall digital payments has increased substantially during the period from 2011-12 to 2017-18. It has reached to 10973.2 million in the year 2016-17 (year of demonetization) from only 2589.3 million in the year 2011-12 and 7046.6 million in the year 2015-16 (indicating a growth of 56% compared to the year immediately preceding the year of demonetization) witnessing a compound annual growth rate (CAGR) of 28.44% during the period. The volume of digital payments also further has increased by 44.6% in the year 2017-18. The volume of overall payments has witnessed a CAGR of 35.31% during the entire period from 20111-12 to 2017-18.

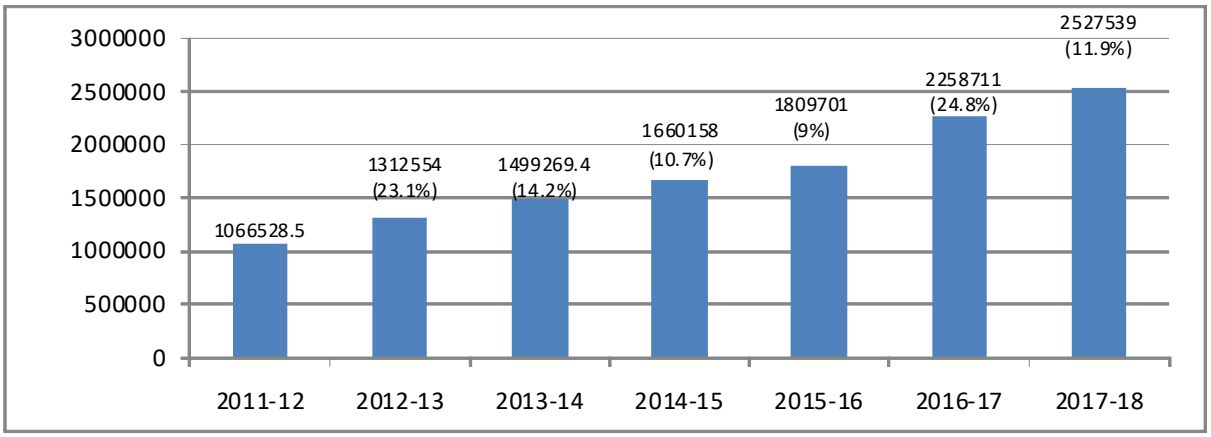
Likewise, the value of digital payments has increased considerably during the period from 2011-12 to 2017-18 (Figure-2). It has witnessed a CAGR of 14.13% up to the year of demonetization and 15.47% for the entire period. It is thus evident that both volume and value of digital payments have increased in a higher rate after demonetization.

Fig.-1: Volume of Digital Payments (in million)



Source: RBI, NITI & Aayog

Fig.-2: Value of Digital Payments (in billion Rs.)



Source: RBI, NITI Aayog

The share of different payment systems in total volume (in million) and value (in billion rupees) in the year 2017-18 are presented in Figures-3 & 4 respectively. In case of volume of payments, the share of RTGS is negligible (0.78%) but it accounted for 46.18% of total value of transaction due to relatively higher per transaction value of RTGS. Likewise, financial market clearing accounted for only 0.02% of total volume of transaction but constituted 42.52% of total value of transaction. Due to lower per transaction value, the retail electronic clearing constituted only 7.64% of total transaction value in spite of handing 40.17% of total transactions. The highest volume share in transaction was of card payments in the year 2017-18 (51.66%) though its percentage share in total value of transaction was only 0.42%. The percentage share of volume and value of retail paper clearing in total were 7.37% and 3.24% respectively in the year 2017-18. Thus, in the year 2017-18, most of the digital transactions were executed through card payments followed by retail electronic clearing while RTGC accounted for highest value of digital transaction followed by financial market clearing in the same year.

Fig.-3: Share of different payment systems in total volume of payments (in million) in 2017-18

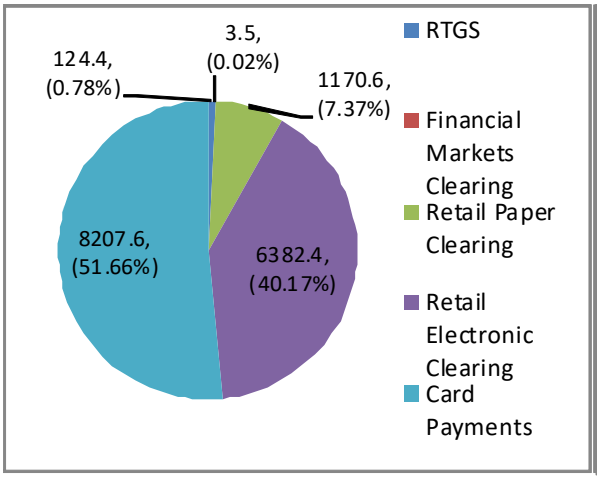
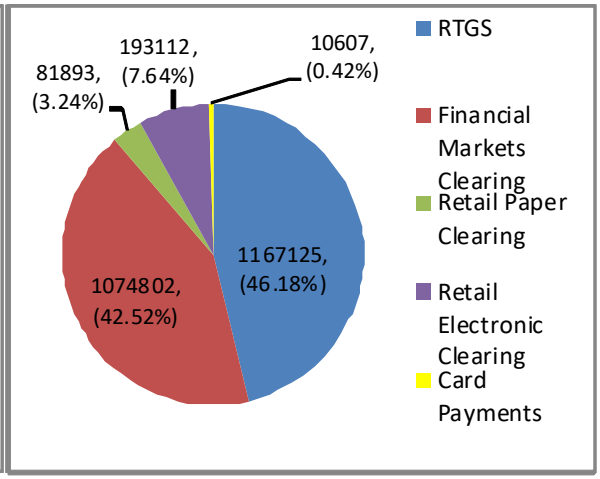


Fig.-4: Share of different payment systems in total value of payments (in billion Rs.) in 2017-18



Source: RBI

Figures-5 & 6 depict the volume and value of RTGS during the period from 2013-14 to 2017-18 respectively. It is observed from the figures that both volume and value of RTGS have increased steadily during the period. The volume has increased from 81.1 million in 2013-14 to 124.4 million in 2017-18 with a CAGR of 11.29% while value of RTGS has increased from Rs. 734252 billion in 2013-14 to Rs. 1167125 billion in 2017-18 with a CAGR 12.28%.

Fig.-5: Volume of RTGS (in million)

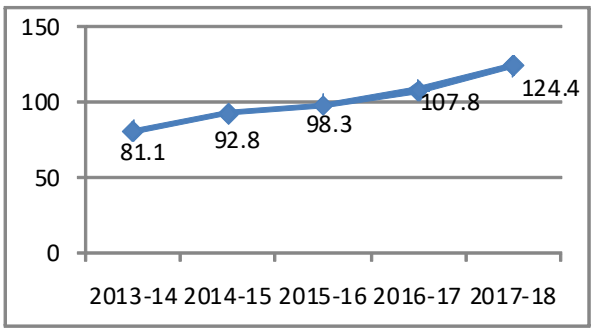
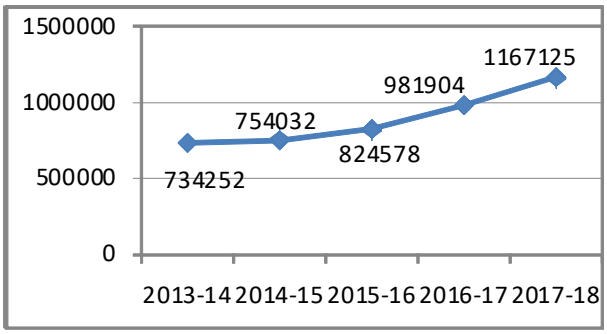
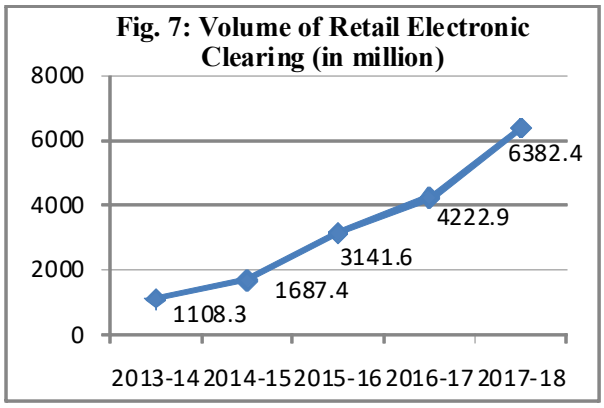


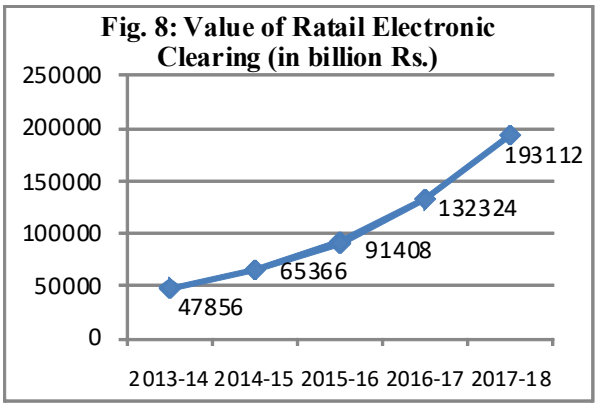
Fig.-6: Value of RTGS (in billion Rs.)



Source: RBI

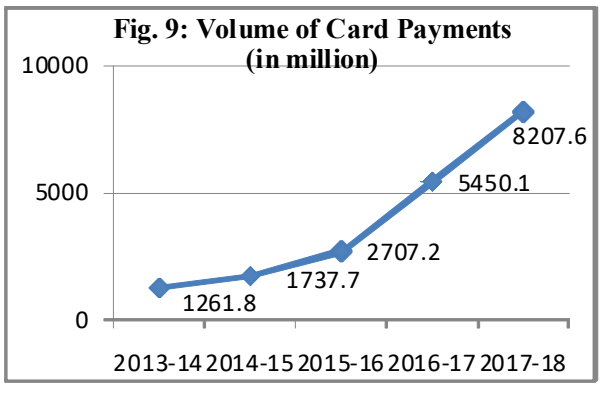
The growth in volume and value of Retail Electronic Clearing (REC) consisting of Electronic Clearing System (ECS), National Electronic Fund Transfer (NEFT), Immediate Payment Service (IMPS), Unified Payment Interface (UPI) and National Automated Clearing House (NACH) during the period from 2013-14 to 2017-18 are depicted in Figures-7 & 8. In case of volume, it has witnessed a substantial growth during the period and reached to nearly six times in 2017-18 of what it was in the year 2013-14 with a CAGR of 54.91%. Likewise, value of REC has reached to four times in the year 2017-18 from what was in 2013-14 with a CAGR of 41.73%. The observed evidence, thus, demonstrates that REC is making its growing contribution in digital payment scenario of the country.

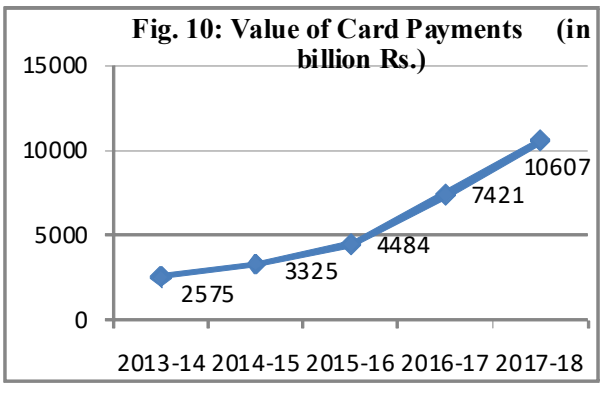


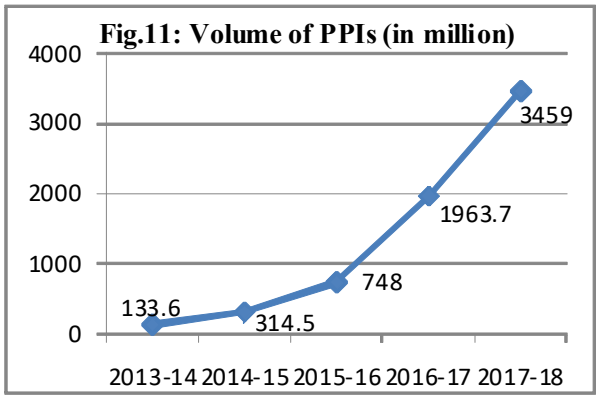


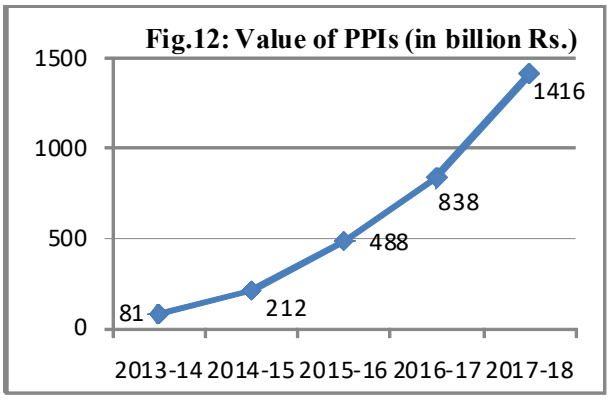
Source: RBI

During the period 2013-14 to 2017-18 payments through cards comprising debit cards, credit cards and prepaid payment instruments (PPIs) have witnessed a steady growth year after year both in terms of volume and value (Figures-9 & 10). The volume and value of card payments have increased to 8207.6 million and 10607 billion rupees respectively in the year 2017-18 from 1261.8 million and 2575 billion rupees respectively in the year 2013-14 which indicate a growth of 550% and 412% in volume and value of card payments during the period. The volume of card payments has observed a CAGR of 59.7% during the period while the value has observed a CAGR of 42.46%. It is also evident that the volume of card payments has grown at greater rate than the growth in its value which implies that this payment medium is becoming popular in small and retail payments segment in the country. It is further observed fromFigures-11 & 12 that Prepaid Payment Instruments (PPIs) has recorded a volume of about 3459 million transactions valued at rupess 1416 billion in the year 2017-18 from 133.6 million transactions valued at rupees 81 billion in the year 2013-14 with a CAGR of 125.57% for volume and 104.48% for value of transaction. Thus, among card payments segment, both the volume and value of PPIs have grown at a much faster rate than the average growth of the segment.



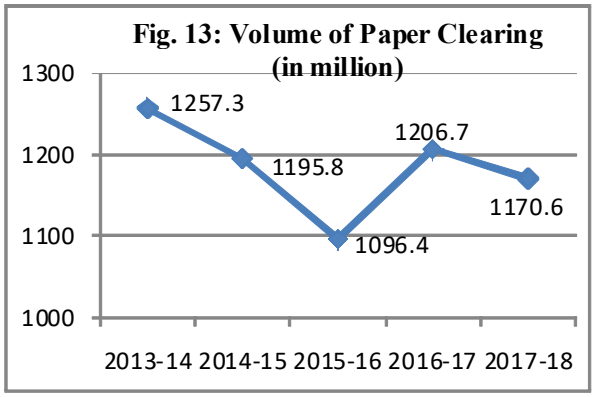


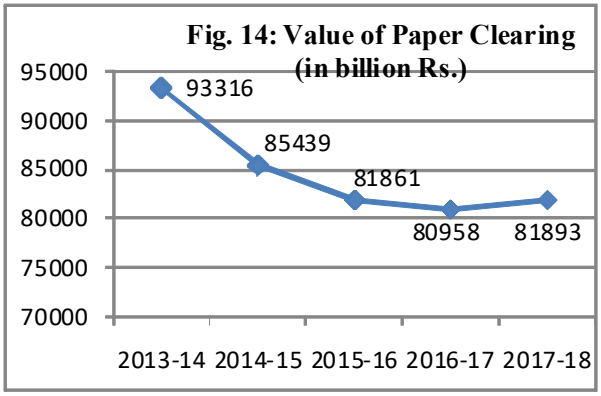




Source: RBI

Along with growth and growing contribution of different digital payments medium, the volume and value of paper clearing have shown declining trend during the period. Though the number of paper clearing increased by 10.06% in the year 2016-17 compared to its preceding year, it was decreased in the next year. Likewise, though the value of paper clearing increased slightly in the year 2016-17 (by 1.15% than the previous year), it has shown a declining trend over the period (Figures-13 & 14). Considering the whole period of five years, the volume and value of paper clearing have shown a negative CAGR of 1.77% and 3.21% respectively implying diminishing share of these transactions with the passage of time in payment scenario of the country.





Source: RBI

VII. Conclusion

The country is steadily moving towards becoming a less-cash society with the large scale adoption to electronic means of payment system in the country. In line with national agenda, the government has been trying to building a vigorous and resilient technology infrastructure that would help to ensure smooth functioning, safety and security of digital transactions. The efforts of the policy makers in that direction have resulted in consistent growth in retail electronic payment systems, like NEFT, IMPS, card transactions, PPIs, etc. and decreasing share of paper-based clearing instruments over the years. But, growth of digital payments does not depend solely on the availability and implementation of

payment technologies, rather it necessarily depends on other three indispensable factors- number of smart phone users, number of internet users and number of bank accounts in the country. The central bank of our country has taken initiatives in four strategic areas namely, responsive regulatory framework, robust infrastructure, customer centricity and effective supervision to lead the country towards a less cash economy. Ministry of Finance, Government of India has been taking major initiatives from time to time to promote digital payment ecosystem in the country. The Digital Payments system in India has been experiencing a consistent growth over the years and with multidimensional initiatives of the government, growing number of smart phone and internet users, growing banking penetration in rural India and entry of global tech giants in the digital payments environment of the country it is expected to witness an exponential growth in near future.

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EFFECTS OF DIGITAL INDIA ON INDIAN ECONOMY

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INTRODUCTION:-

India is the fastest growing economy in the world. The Indian economy is the seventh largest economy in the world measured by GDP and third largest by Purchasing Power Parity (PPP) after US and China. The Indian economy has seen a lot of changes from being self-reliant to opening its door for global trading by allowing LPG in 1991 under the then Finance Minister Mr. Manmohan Singh and since then there is no seeing back. According to the latest economic survey 2017-18, the Indian economy has seen a continuous growth averaging 7.5% between 2014-15 and 2016-17 although its growth is expected to decline to 6.5% in 2017- 18. In a developing country like India the process of digital soundness has been slow and got a huge push to go digital when the demonetization shook everyone. Although there have been various initiatives taken by our Honorable Prime Minister Mr. Narendra Modi such as :- Make in India, Swatch Bharat Abhiyan, Digital India, etc. It was during this money crunch when people realized the importance of digitalization. As said by Rajat Gandhi on financial inclusion, "No matter how many banks may open and how many boots you have on the ground, if the person does not know about the financial options that are open to him policies, schemes and financial instruments will mean little. It is important for a person to know what to look for and only then think of the benefits that he can obtain from it". With the demonetization people have realized how important it has become for them to know about their money and what affects it the most and how they can protect. This phase has helped the people to survive the cash crunch they faced and have also become the driving force for digital literacy and financial literacy.

Digital India Programme is one of the foundation programme of Indian government and was launched by the Prime Minister Mr. Narendra Modi on 1st of July, 2015. Its aim is the overall growth of the Indian economy and to connect the rural areas with the urban areas. It aims at providing growth through nine pillars namely :- Broadband Highways, Universal Access to Phones, Public Internet Access Programme, E-Governance, Reforming Government through Technology, E-Kranti, Information for all, Electronics Manufacturing, IT Jobs and Early harvest programmes. Every pillar has its own importance, complexities in implementation and is a propellant for the overall growth of the economy.

OBJECTIVE OF THE STUDY:-

In the light of the above statement the present research paper aims at highlighting the following points :-

1) Demonetization and Digitalization.

2) Jio Helped In Digitalizing Rural India.

3) GDP and Digital India.

4) Sustainable Development.

ANALYSIS OF THE STUDY:- Digitalization is a boon and needs to be utilized properly with the demonetization. The demonetization not only shook the tax evaders but also pushed India to become more digitally sound country and has also highlighted the benefits and need to go cashless. Demonetization has also increased the transactions from mobile wallet and digital payment channels. Pay tm said it hit a record of 5 million transactions in a day. It may be seen as a temporary phase but the ease of access and availability has made more of a good alternative than the paper or plastic money. With the adaptation of technology in the banking sector more and more transparency came in the flow of money in the economy. Digitalization helped to have a virtual access to the money and with the concept of E-Kranti in the banking sector it became easier for the people to avail the financial services provided by them. Having a bank account is not only the matter of concern but also having the knowledge that how their money gets affected by economic situation of the country and various other factors for having a control over their finances is also important. When people are financially literate, they are more likely to explore the products and services offered by banks and use them for their benefits. This accelerates the pace of financial inclusion, where everyone can access the basic banking facilities rather than relying on the orthodox systems of money market. Financial inclusion and financial literacy are two essential ingredients of an efficient economy.

Among the ambitious plans of Indian government one of them is digital India in which each and every sector contributed to achieve this goal. One such initiative is taken by Reliance Industries in which they established Reliance Jio Infocom Limited (RJIL). Experts say that to make the digital revolution a success in our country, Jio's move has contributed much. Reliance Jio has partnered with several smartphone brands where Jio preview offer is available for a period of 90 days. Jio's 4G-LTE services include unlimited HD voice calls and video calls, unlimited SMS, unlimited high speed data and a host of Jio premium apps. For a price sensitive market like India, launch of affordable data services and free voice calls is indeed a welcome step. This is expected to drive greater data adoption across segments. Telecos form the backbone digital India. Any market erosion, at this stage, may impact the outcome of the "Digital India" vision. Such contributions from every sector can act as a catalyst to the digital transformation in India. It should also be seen that the quality of the service is maintained and does not affects the market negatively.

The digital India plan could boost GDP upto $ 1 trillion by 2025. It plays a key role in macro-economic factors such as GDP growth, employment generation, labour productivity, growth in number of businesses and revenue leakages for the government. India is the second largest telecom market in the world. From 2014 there came a consistent decline of the value of Indian exports. India is the most complex country in the world. It has the most layered democracy, the most varied interest groups, the largest number of vetoes i.e. there is a lot of noise. The policy machinery isn't well oiled, that means the noise its making isn't of a crash but it accompanies mending.

TABLE: 1.1 ANNUAL REAL GVA AND GDP GROWTH (percent)

GVA at basic prices from	2014-15	2015-16	2016-17	2017-18(1st AE)
Agriculture, Forestry and Fishing	-0.2	0.7	4.9	2.1
Industry	7.5	8.8	5.6	4.4
Mining and Quarrying	11.7	10.5	1.8	2.9
Manufacturing	8.3	10.8	7.9	4.6
Electricity, gas, water supply and other utility services	7.1	5.0	7.2	7.5
Construction	4.7	5.0	1.7	3.6
Services	9.7	9.7	7.7	8.3
Trade, hotel, transport, storage, communication and services related to broadcasting	9.0	10.5	7.8	8.7
Financial, real estate and professional services	11.1	10.8	5.7	7.3
Public administration, defence and other services	8.1	6.9	11.3	9.4
GVA at basic prices	7.2	7.9	6.6	6.1
GDP at market prices	7.5	8.0	7.1	6.5

SOURCE:- Based on Data from CSO(Central Statistics Office).

From the above table it is clear that as per the first Advance Estimates (1st AE), released by the CSO, growth rate of Gross Value of Added (GVA) at constant basic prices is estimated at 6.1% in 2017-18, as compared to 6.6% in 2016-17. This is on account of lower growth in agriculture and allied and industry sector, which are expected to grow at 2.1% and 4.4% respectively. In 2017-18 service sector is expected to grow at 8.3% as compared to 7.7% in 2016-17. Within the service sector only the growth of public administration, defence and other service sector is expected to decline in 2017-18.

There are many similarities between the path India has chosen for development and the UN goals for Sustainable Development. The UN Sustainable Development Goals (SDGs) adopted by the international community in September 2015 comprehensively cover social, economic and environmental dimensions and build on the Millennium Development Goals(MDGs). India presented its first Voluntary National Review (VNR), on the implementation of SDGs on 19TH July, 2017 at High Level Political Forum on Sustainable Development (HLPF) at UN, New York. The VNR report focused on 7 SDGs :- No poverty, Zero hunger, Good health and well being, Gender equality, Industry, Innovation and Infrastructure, Life below water and Partnerships for the goals. India is now embarking on a fast rural to urban transition. The need of the hour is the provision of public services by the cities to its residents. Raising resources of the magnitude that is required for a sustainable urban transformation is going to

be a daunting challenge. The average cost recovery is less than 50% in most of the Urban Local Bodies (ULBs). The way forward is to encourage the ULBs to raise resources through various innovative financial instruments such as municipal bonds, PPs, credit risk guarantees, etc. Access to affordable reliable, sustainable and modern energy has deep inter-linkages with all the other goals. It is directly and indirectly linked to other sustainable development objectives such as good health, and well being, gender equality, industry, innovation and infrastructure, sustainable cities and communities.

CONCLUSION AND SUGGESTIONS:-

The estimated impact of digital India by 2019 would be cross cutting, ranging from broadband connectivity in all panchayats, WI-Fi in schools and universities and public Wi-Fi hotspots. The programme will generate a huge number of IT, Telecom and Electronics jobs, both directly and indirectly. The success of this programme will make India digitally empowered and the leader in usage of IT in the delivery of services related to various domains such as health, education, agriculture, banking, etc. Digital empowerment of citizens will pay emphasis on universal digital literacy and availability of digital resources and services in Indian languages. The programme will be implemented in phases from 2014 till 2018. The source of funding for most of the e-Governance projects at present is through budgetary provisions of respective ministries or departments in the central or state governments. Requirement of funds for the individual projects for digital India will be worked out by respective nodal ministries or departments. To implement this government is planning to strengthen National Informatics Centre (NIC) by restructuring it to support all central government departments and state governments. Some of the challenges which government is facing in its implementation are :-

1) Lack of education.

2) Lack of infrastructure and required technology.

3) Financial and technical issues.

4) Attitude of citizens as well as government personnel.

5) Cyber crimes and lack of confidence.

6) High costs.

7) Training needs.

A digitally connected India can help in improving social and economic condition of people through development of non-agricultural economic activities apart from providing access to education, health and financial services. Hence, the overall growth and development can be realized through supporting and enhancing elements such as literacy, basic infrastructure, overall business environment, regulatory environment, etc.

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SKILL DEVELOPMENT: OPPORTUNITIES & CHALLENGES IN INDIA

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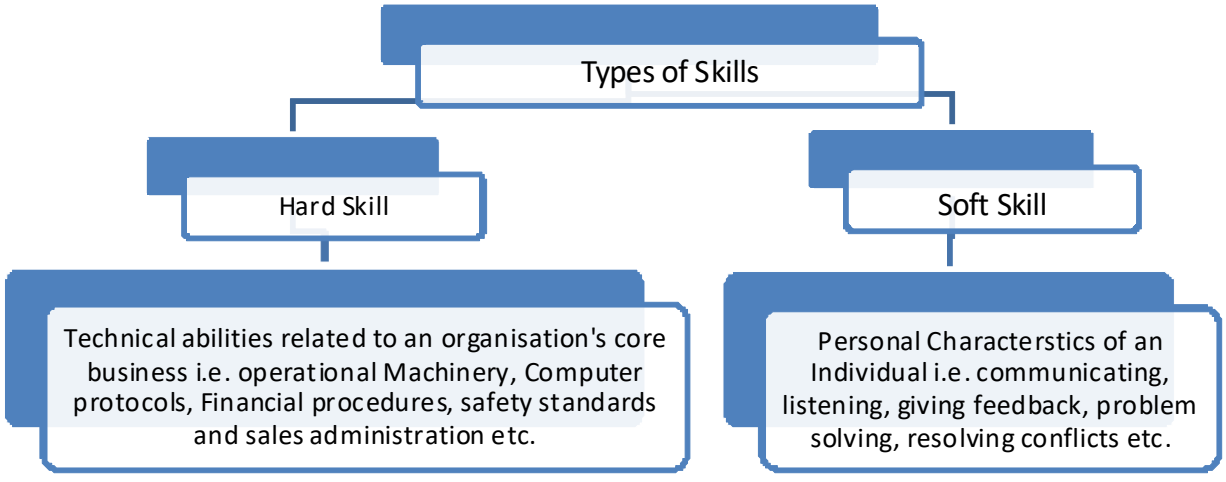
Introduction

"Education, vocational training and lifelong learning are central pillars of employability, employment of workers and sustainable enterprise development" **- International Labour Organisation**

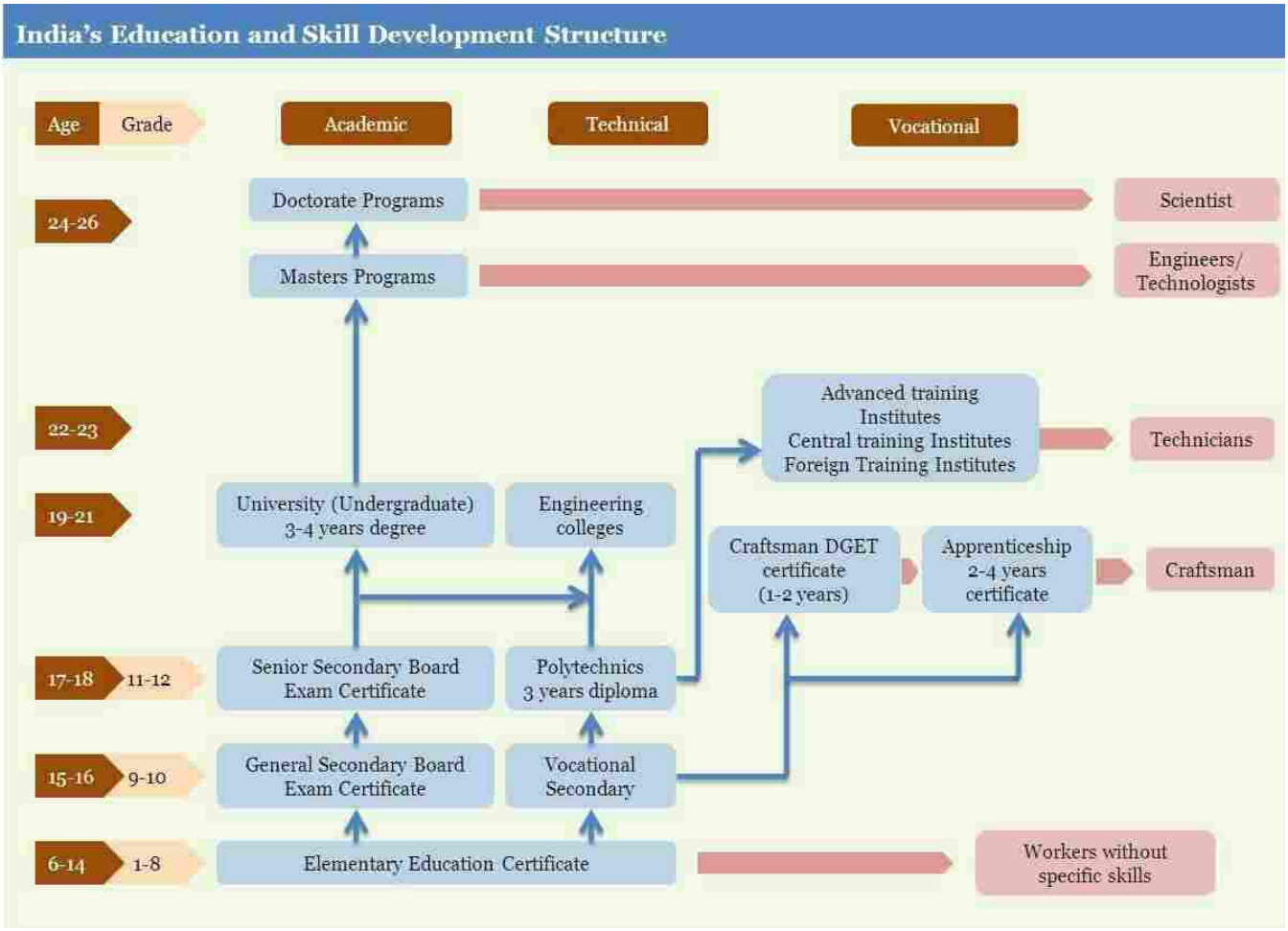
Skill development is critical for economic growth as well as social development. It is the dream project of Indian Prime Minister Mr. Narendra Modi. It is a Multi Skill programme launched to create opportunities and scope to develop millions Indian youth's talent and skill by providing training covering all the area rural as well as urban. India is successively moving forward as knowledge based economy. In fact Skill and knowledge are the driving forces of economic as well as social development for India. Economics respond more effectively to the opportunities & Challenges of the world of work if associated with higher and better level of skills. Whenever skill is the competencies required to complete the tasks in most efficient way to maintain the agreed set of quality standard. So, Skill development may be defined as a way to empower the workforce with the necessary skills, knowledge through vocational or technical training to meet the industry requirements and to ensure competitiveness in the dynamic global market (Maclean, 2013).

According to National Skill Development Corporation (NSDC) – India, skills can be classified into four levels based on the degree and duration of training required. Skill Level 1 (Semi skilled) refers to skills that can be acquired through short-term courses, focused interventions and on-the-job training. Skill Level 2 (Skilled) refers to skills that are specific to the occupation and can be acquired through technical or vocational training. Skill Level 3 (Highly Skilled) refers to skills involved in highly technical or commercial operations and can be acquired though degrees, diplomas and post graduate education. Skill Level 4 (Highly skilled with specialization) refers to the skills with high specialization involving research and design that can be acquired through doctorate or many years of work experience.



Indian ecosystem of skill development is not only complex and large but also diverse and providing different level of skills among the heterogeneous Indian population. Basic structure of Indian Education and Skill Development may be defined as under:

Figure 1: Current Structure & Supply Of Education & Skill Development System In India



Source: World Bank

Objective of the Study

- To study the prospects and challenges for skilling in India.
- To study and analyse the challenges faced by skill development system in India.
- To analyze the challenges faced to develop skill in India in terms of financial resources.
- To know the present skill capacity of India.
- To suggest possible solutions or ways forward for the skill development in India.

Data and Methodology

This is a descriptive study based on secondary data and information which is collected from the concerned sources as per need of the research. The relevant books, article, papers, documents of various ministries/departments and organizations, Ministry of MSME, Yahoo Finance, Google finance, websites of respective start-ups companies and various government agencies and their annual reports has been used in this study.

Features of Skill India Programme

- To enhance the skill of Indian youths not only to get the employment but also for starting up new ventures
- To provide training, support and guidance for all traditional occupation like carpenters, welders, blacksmith, tailors and wavers etc.
- To Emphasis new areas such as jewellery industry, banking tourisms, gem industries, construction, real state and other allied sector in which skill development is not sufficient
- To conduct training programme at international level so that Indian youths may be able to meet domestic demand alongwith the demand of other developed and developing countries such as Germany, United State of America, Japan, China, Russia, Canada etc.
- To generate and create hallmark named Rural India Skill to standardise and certify the training process.
- To initiate tailor-made, need based programme for specific age groups Indian youths such as language and communication skill life and positive thinking skill, management skill, personality development skill, behavioural skill including job and employability skill.
- To develop innovative course methodology of "skill India" including brainstorming sessions, games, practical experience, group discussion, and case studies.

Polices Under Skill India Programme

Following development policies has also launched by our honourable Prime Minister Mr. Modi at the time of formally launching the Skill India Campaign**:**

- National Policy for Skill Development and Entrepreneurship 2015
- Pradhan Mantri Kaushal Vikas Yojana (PMKVY)
- Recognition of Prior Learning (RPL)
- Skill Loan I(2016-17 to 2020-21) scheme aimed a *Aims of UDYAMITA (2016-17 to 20-21) Plan*
    - o Educate and equip potential and early stage entrepreneurs
    - o Connect entrepreneurs through a Mentor Network
    - o Coordinate and support Government Schemes
    - o Catalyse a culture
    - o 2200 colleges, 300 schools, 500 Government ITIs and 50 Vocational Training Centres (VTCs)
    - o Entrepreneurship Resources and Coordination Hubs
    - o Massive Open Online Courses (MOOCs) facilitated by faculty
    - o National E-Hub, 6 Regional E-Hub, 50 Nodal E-Hubs and E-Hubs (colleges, schools, ITIs and VTCs)

Challenges before Skill Development Initiatives in India

Complex Institutional Set-up

Indian existing structure for skill development is not only complex but also have over lapping priorities. According to government data, skill development initiatives are spread across about 20

different ministries, and 35 state governments and union territories. Under such complicated and over lapping institutional set up NSDC has been created to consolidate efforts in skill development.

Inadequate Infrastructure

It has been predicted by NSDC that there will be an incremental requirement of 347 million skilled personnel in India by 2022 but India is facing with a significant skill development challenge as over the forthcoming decade because there are expectation to join the workforce approximately 12 million people every year. Our country has only a total technical and vocational training capacity of 4.3 million whereas 12.8 million new additions in labour force every year. Bridging the gap is a major challenge of devising such huge infrastructure setup.

Lower Mobilization in Skill Institutes

Indian students prefer a regular degree course in comparison to vocational training because it is more valuable than a certificate if other things remain equal. Indian skill institutes like ITIs and polytechnics have low enrolment as compared to their enrolment capacity due to the orthodox thinking, reluctant to migrate and low salaries at entry level.

Direct admission without pre-assessment or entrance tests

In India, there is low frequency of pre-assessment or entrance tests before admitting students to the skill training institutes. It leads to a mismatch between the Interests of students and the abilities of the students so they feels unable to cope with the course requirements and thus drop-outs occur.

Lack of standardization of the course curriculum or training delivery systems

It is not possible to compare courses across different training institutes due to lack of standardization. It also creates ambiguity among the student about skills which will be imparted under a particular course at some training institute. Measurement and evaluation of competence outcomes also have lack of standardized approach.

Lack of proper career guidance

Due to the inadequate placement statistics and weak industry linkages of the training institutes, it is not possible to properly guide the students. Normally these institutes are set up in rural area but the jobs offered to them are in urban areas. It leads to uninformed skill acquisition choices.

Unaffordable Training Cost

The training cost in India is very high so it may not be afforded by various students. High training cost does not appeal the target population due to unsatisfactory placement records and low salary offers after the training completion.

Lack of Skill Development of Female Workers

There is lack of female skilled workforce because a large no of female workforce are engaged in low paying unorganised works. There is also lack of primary education for women in rural and urban both the area which is approximately 65% and 30% respectively.

Lack of participation of private sector

In India, Private sector in not participate in policy formation and curriculum development relating to education and vocational training because mostly private sector institutes are located in urban area therefore rural population remain lags behind.

Demand and Supply Mismatch

There is a lack of matching the demand generated by the industries and supply of labour-force. It leads to aggravate all types of skill development initiatives of the Government and its partner agencies.

Suggestions and Recommendations

Based on the above analysis, following recommendations may be made for improvement in the quality of training and for reduction in the skill gap in India.

Establishment of Quality training Institutes and evaluate their performance

To enhance the employability of students, there is an urgent need of quality training to provide the students. NSDC should not only to develop some basic techniques to evaluate the performance of such institutes but also encourage them to perform better in addition to providing the grants to such institutions. It may be implemented by providing incentives based on performance in certain criteria such as total number of students placed with acceptable salary packages, to such institutions. It will certainly generate competition among such institutions to provide quality training therefore more and more students may be placed.

Conducting the skill survey

It is necessary to find the exact skill requirement of employers to bridge the gap between the demand and supply of skill man force. Survey will also help not only in designing course structures of the training programme but also in developing the standardized course curriculum or training delivery systems.

Enlighten the students

Students should be made aware and be informed about the existing training institutes, courses offered and career opportunities after course completion, placement records along with the institute ranking through newspapers, magazines or centralized portals so that students may be able to choose the right institute and course based on their interests and demand in the market. It will also helpful in keeping a check on the fraudulent Institutes which are cheating students and are not credible.

Conclusion

In India, the concept of skill development has been largely recognised. To initiate skill India in rural as well as urban areas, many programs and policies are being formulated. There is a urgent need of skilled workforce to make India internationally competitiveness and to boost its economic growth further. As India is moving rapidly towards the knowledge economy it becomes important to focus on the advancement of skills relevant to emerging economic environment. An efficient skill development system is the need of the hour for transforming its demographic dividend. Indian rural masses are still in a backward condition, therefore, steps have been implemented to develop skills amongst them for the purpose of obtaining self-sufficiency in resource utilization, governance and leadership. Literacy skills, computer skills, craftsmanship, manufacturing, trading skills etc are different kinds of other skills which may open ways towards development of the individuals.

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NANOMEDICINES, DRUGS DESIGNING AND DRUG DELIVERY-IN VIEW OF DIGITALIZATION

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Introduction

Nanotechnology has evolved too much greater heights resulting in widespread application in various fields like electronics, healthcare, medicine, food etc. Nanotechnology has developed in improving and revolutionizing the industrial and technological sectors like medicine, energy, home security, food safety, transportation, environmental science. Nanomedicine is a huge arena covers medical applications of nanotechnology from biological devices to molecular nanoelectronic biosensors etc. The nano-medicine deals with the issue of solving the problems of toxicity and impact of nano-materials of the environment.

Drug design is an integrated developing discipline which portends an era of tailored drug. It involves the study of effects of biologically active compounds on the basis of molecular interactions in terms of molecular structure or its physico-chemical properties involved. The drug is more commonly an organic small molecule that activates or inhibits the function of a bio-molecule such as a protein, which in turn results in a therapeutic benefit to the patient.

Drug delivery has the potential to have a tremendous impact on treatment of retinol diseases. There are a large number of drugs that are reasonably effective to treat retinal conditions, but those drugs are limited by delivery issues such as the need to mitigate side-effects. A drug delivery system is a formulation or a device that enables the introduction of a therapeutic substance in the body and improves the efficacy and safety by controlling the rate, time and place of release of drugs in the body.

Objectives

1. Nanomedicine acts faster than traditional drugs.
2. Drug design meets regenerative medicine.
3. Nanomedicine desirable in anti-cancer therapy.
4. Nano-particles for vaccine/gene delivery.

Analysis of Data

1. **Nanomedicine acts faster than traditional drugs-** Early diagnosis plays an important role for the successful prevention and efficient treatment of diseases. This is particularly true in the case of cancer, as earlier diagnosis correlates with a significant increase in the cure rate. The molecular mechanisms of the patho-physiology will lead to the development of newer and better anti-cancer drugs. The advantages of nanoparticles based diagnosis lies in their higher sensitivity and selectivity when compared to classical methods. One advantage of nanoparticles for biomedical applications is their ability to overcome biological barriers and localize into the target tissue. The nanoparticles

could be a carrier is the active drug itself. The targeting of specific tissues could be due to passive targeting or active localization using specific additional molecules, which allows for molecular recognition of the target tissue.

2. **Drug design meets regenerative medicine-**Nanotechnology has contributed towards the design and construction of scaffolds using various materials, such as collagen, calcium sulphate, chitosan hydoxyaptite. These can be further modified with the addition of nanoparticles like boron, growth factors or stem cells.

   The various nano-based scaffolds acted on bone matrix to promote recruitment of circulating stem cells, induce proliferation. Other applications of nanotechnology in regenerative medicine include repair of nerve inquiries. Incorporation of neurotrophine-3 and chondroitinase ABC for the treatment of spinal cord injuries. The results showed accelerated nerve regeneration through provision of topographical signals and multiple biochemical cues arising from both nanofibrous scaffolds and cytokines.

3. **Nanomedicine desirable in anti-cancer therapy-**Although chemotherapy has been one of the principle treatment modalities for cancer, efficacies are mostly unsatisfactory due to non-specific actions which results in significant systematic side effects. Anti-cancer drug molecules should act specifically on target cancer cells and accumulate preferentintally at target tissue in sufficient concentration.

   Therefore improvement of delivery efficacy of anti-cancer drugs can enhance the selective cytotoxicity to tumor cells and is essential to reducing side effects in the body.

   Cancer vasculatures have unique characteristics in both morphological structure and physiological features. These include

   1. Highly chaotic and irregular arrangement of blood vessels and in contrast to normal ones.
   2. Cancer blood vessels have over abundance of anionic phospholipids and proteoglycans.

   Macromolecules and nanoparticle drug carriers engineered to specific size can thus preferentially extravagate from leaky cancer vasculatures and accumulate in cancer tissues chemotherapeutics is increased and trapping of drug molecules can be achieved with high potency.

4. **Nano-particles for vaccine/gene delivery-** Dendrimers have also been demonstrated to be a good delivery system to carry the anti-cancer agent. Current biological vaccines consist of polynucleotide vaccines, DNA vaccines and plasmid vaccines. Nanotechnology can serve as an efficient sustained release delivery system for loaded vaccines. The nanoparticles could release these vaccines molecules at a sustained rate loading to continuous gene expression. This preserves the level of vaccine molecules to blood and maintains continuous production of specific antibody.

Conclusion

Nanomedicine is now fully into our daily life and has brought innovation to current diagnosis and therapeutic approaches in clinical medicine. Newer materials, technologies and methods will be emerging to promote further development of nanomedicine compared with conventional materials.

Nanoparticles can gain easy access to cells, tissues and even organs. Many researches have been already engaging in cytotoxity evaluation in various cells, to investigate and estimate the potential toxicity induced. Development of tissue engineering and scaffolds as well as nanodelivery system, the sustained release of nanomaterials in specifically targeted organs in the body can achieved thus reducing systematic toxicity effect. New testing need to be conducted to ensure safety to patients.

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PREMCHAND - A POLE STAR AMONG THE CONTEMPORARY NOVELISTS

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Introduction

Premchand is a well-known novelist who has made a high amount of contribution especially in the modern Hindi Literature. He is a eminent writer and he has written various novels and short stories especially in Hindi and Urdu language. Premchand lived in the time when Hindi literary was only Centre upon the magical and fairy tales and writer . It was Premchand because of his readers came to experience a new variety of Hindi literature where common man and his works were given the status of heroes and heroines and the problems which were faced by them was actually presented to the readers in the form of real India. His literature was actually brought a lot of transformation in the minds of the readers and had also given off is on the social problems and discriminations that are going on in day to day life. Many readers came to know about the feudal system, zamindari, poverty, communalism, caste system and all the social and economic conditions which were prevalent at that time in India. His works in the field of Hindi literature shape and give a new dimension to modern Hindi Literature where does came to know about the reality of the society and how does reality and social evils and discrimination structured their life around them.

His novels actually brought the life and struggles of the people who were belonging to the lower section of the Indian society how these people struggle various social phenomenon which existed in the society.[1] The reason why Premchand novels are so highly critical and analyze because of his novels actually spoke about the Rapid socio economic changes and always made it a point that social issues where the real Evil in the society which corrupted the brilliant minds of Indian people. He actually gave a shape to his ideas and characters and made it as a theme in his Novels which was actually adopted from the real world. From his novels you will find the understanding that every human being is normal and good but the environment and the social cultural actually affected them and corrupt them in various aspects. Premchand's contribution in Hindi fiction is great to many novels which actually revolve around social issues such as SevaSadan ,Gosha- e- Afiat,Ranga- Bhoomi ,Kayakalpa ,Nirmala . All of these novel through a high impact upon the social evil that was going on as a tradition in Indian society and also tried to emphasize on the fact that these social evils actually where degrading Indians morally and affecting them in various forms. Please find that the social realism which is been depicted by the Premchand is more and more positive and progressive when it is compared to any other writers. His stories where highly imaginative but it was very much close to reality. Premchand's affinity towards a socially engaged literature work the result why is he still being considered as an eminent contribute especially when it comes to Hindi literature. He was elected as the first president of the Indian writer's body. His speech Sahitya Ka Uddeshya was heard by a wide of audiences and is

[1] "Premchand - Wikipedia." https://en.wikipedia.org/wiki/Premchand. Accessed 25 Jan. 2019.

being still changed by the youth generation and the modern society of India. His simple but powerful nature was created a great deal of impact on his audience and the Hindi literature of different dimension where people could actually perceive truth, beauty, freedom and humanity. According to him literature had only one definition which was actually considered as 'the criticism of life'. From Premchand we can learn that art of natural gift can actually be moulded unannounced with the education and with the curiosity which is generated from the world around him. He actually gave Hindi literature on you meaning and concept which is still appreciated worldwide.

Review of Literature

Premchand's first story was written on Duniya ka sabse Anmol Ratan in the year 1907, in the story he brought emphasis on the freedom struggle and named ".The Last drop of the blood "as the most precious jewel on the earth. He had written a series of collection of short stories and novels, which has created a great emphasis on the lives of people and hybrid the social stereotype which has always been brutally resided in the minds of indians especially. His first collection of short stories included Soz-e Watan which was written in the year of 1908 dress collection of short stories was highly founded incendiary and was banned by the Imperial government of India. [2]Even after the ban of his copies he didn't gave up and kept on expressing the pain and suffering all the social message through his writings. His writings where a great contribution and is being still considered as a form of Preach even to modern readers. As his work highlighted the exploitation in justice and tolerance which was going on single handedly in the society, which is the sole reason why even modern readers and young urban readers prescribe Premchand stories in school textbooks as well. Premchand tries to understand human relationship and considered every individual as of good nature. He believes that the social, which is brought in of an individual is actually the result of the social circumstances and citation that has been observed in the society in their day to day life. Some of his finest writing shows influence of Mahatma Gandhi and the Russian Revolution. He has brought in light the bad impact of social culture which are causing degradation of moral values such as the need for widow remarriage, the ramparts system of Dowry and untouchability, unless labours, bribery, corruption, social inequalities and class which are affecting and exploiting humans at various emotional levels. His work in Sevasadan is being still and appreciated by young leaders of the Indian society. In this novel has actually portrait the struggle of women in the Indian society and how affected the growth of women in the society.[3] His novels and his character actually played a powerful impact when it comes to write the problems which are going on socially and affecting people's mind at a very social level. Because of his immense contribution in the field of Hindi literature has been termed as the Upanyas Samrat by various different writers and even by many more. The famous novels include Godan, Bazar e Husn, Karmabhoomi, Shatranj Ke Khiladi, Gaban , Mansarovar, Idgah. Many Indians had also tried to include his novels in their work as a form of art. His work in Kafan has been highly accepted from the actor factor company and has been still performed by various theatre groups and has been adopted to convey social messages to common people the form of artwork.[4]

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[2] "111 Social concern as a theme in the selected novels of Munshi ...." http://www .advancedjournal.com/download/374/2-4-71-863.pdf. Accessed 25 Jan. 2019.

[3] "Premchand Learning | Premchand Facts and Resources ...." http://www.defaultlogic.com/learn?s=Premchand . Accessed 25 Jan. 2019.

[4] "Between two worlds : an intellectual biography of Premchand (Book ...." http://www.worldcat.org/title/between-two-worlds-an-intellectual-biography-of-premchand/oclc/21149520. Accessed 25 Jan. 2019.

Conclusion

Premchand actually reflected his enthusiasm for social change and social evils through his writing and brought a good emphasis on social problems such as exploitation of the poor farmers, prostitution, child marriage, the problem of widows where the main leading social problems faced by Indians. Through his writings he believed that he could bring transformation and social welfare and justice to all the problems which are going on day to day life. Before his time people were only confined to fairy tales and novels which used to clot their imagination. Premchand is a novel writer who actually tries to evaluate individual from social point of view. From his writing you will understand that any individual as human is never Evil is the social circumstances and the evil which is residing in the society, which is the real cause for degrading the moral value of individuals in the society especially in India. Munshi Premchand actually considers that the social environment is the real factor when it comes to shaping individual as a whole person and he actually tries to understand life criticisms and also try to understand the relations in the society which were the root of social evils.

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DIGITAL REVOLUTION IN THE INDIAN BANKING SECTOR

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Introduction:-

Digital banking is part of a broader context for online banking, where banking services are provided on the Internet. Changes from conventional to digital banking have been gradually and continue, and banking services have been formed by different degrees of digitization. In the second half of the 1980s, the need for computerization was felt in the Indian banking sector, to improve customer service, book-keeping and MIS reporting. Banks used information technology initially with the introduction of a standalone PC and went for local area network (LAN) connectivity. With further progress, banks adopted core banking platforms. Thus the branch banking bank has turned into banking. Core Banking Solution (CBS) enabled banks to facilitate customers as a promising step to increase the convenience of customers anywhere and anytime through banking.

The process of computerization gained momentum with the inauguration of the economy in 1991-92. For this change, a major driver was inspired by increasing competition from private and foreign banks. Many commercial banks start moving toward digital customer services to remain competitive and relevant in the race. For end-to-end stability and services, there is a demand for optimization on the convenience and user experience. The market offers Cross Platform Front End, which enables purchase decisions based on home appliances such as mobile devices with a desktop or smart TV at home. In order to meet the demands of consumers, banks need to focus on improving the digital technology that provides agility, scalability and efficiency. In the contemporary banking era, digital is a discussion and banks have to be in the race for new banking needs, not only digital banking, Internet banking, mobile banking, direct banking, various banking applications, front-end concepts Are. Social media in banking, artificial intelligence, robotics, chat-bots, cognitive computing, block-chain, big data, voice biometrics etc.; Although it also includes various back-end modernization programs which are used to enable the overall goals of digital banking, including legacy modernization, integration, CRM, document imaging / OCR etc.

Review of Literature

In essence, an attempt has been made to present a review of previous studies, in which there is direct or indirect relevance for this study. It is likely to provide a glimpse of the work done on the studies related to the digital revolution in the Indian banking sectors. These studies have been kept in chronological order so that the proper perspective can be developed to further the current project. There are many points of reviews of previous study through literature such as.....

Bhaumik and Sarkar (1996)'' reveal that towards the end of 1980s, the de-regulation process gained momentum with growth in the high-tech sector in India. The de-regulation became an important mechanism for generating competition in the banking system in many developing countries.

KeKre (2009) and Uppal (2010) found that ATM will continue to play a significant role in these broad objectives of inclusive banking that RBI has laid forth. The study concludes that among all e-channels, ATM is the most effective while mobile banking does not hold a strong position.

Hugar (2008) and Kalyansundar (2007) revealed that The new millennium has ushered in large scale technological advancement in the Indian sector. With the advent of new generation private sector banks having the latest technology, other banks have also started upgrading their technology to those levels. The study also suggests adopting of CRM by public sector banks to stand strong in the competitive environment.

Further group of studies such as Hua (2009) ,Kamble (2009) and Ismail. (2009) observed that that perceived value has increased the effect of empathy on customer satisfaction, but it has not increased the effect of responsiveness and assurance on customer satisfaction. . Perceived ease of use is of less importance than privacy and security. Security is the most important factor influencing user's adoption.

Objectives of the Study

The main objective of the study is to establish about the digital revolution in the Indian banking sectors. The specific objectives are—

1. To present a brief review of literature.
2. To identify the features of digital revolution in the Indian banking sectors
3. To identify the classification of Indian banking aids
4. To identify the meaning of in Indian banking
5. To present a birds eye history of digital Indian banking

Research Methodology

The research methodology is a method for collecting all kinds of information and data related to the subject in question. This chapter uses to discuss fundamentals research methodology and different techniques of the research study. Researcher famed hypothesis for study objectives and identify dependent variables and independent variables for research work. The purpose is to examine all the issues involved and conduct a systematic analysis. In the methodology, overall research design, sampling process and field work were completed and finally involved the analysis process. Secondary data methods used in the study have been used.

Digital Revolution in the Indian Banking Sector:-

Banking in India, in the modern sense, originated in the last decade of the 18th century. The first banks were Bank of India, which was established in 1770 and was liquidated in 1829-32; And General Bank of India, established in 1786 but failed in 1791. The largest bank, and the oldest still existed, State Bank of India (S.B.I.). It originated and started working as a Calcutta bank in mid-June 1806. In 1809, its name was changed to Bank of Bengal. It was one of the three banks established by the President's rule; the other two were Bank of Bombay in 1840 and Bank of Madras in 1843. In 1921, three banks were merged to form the Imperial Bank of India, which was India's independence. , Became the State

Bank of India in 1955. For many years, Presidential banks worked as semi-central banks, as their successor did, until the Reserve Bank of India was established under the Reserve Bank of India Act, 1935. , 1934

The digital revolution, also known as the Third Industrial Revolution, is a change in digital electronics with mechanical and analog electronic technology, which began anywhere from the late 1950s to the end of the 1970s, and digital computers and digital records Continuing with the spread of adoption, the present day. Clearly, this term refers to the broad changes brought by digital computing and communication technology during the second half of the 20th century (and later). In accordance with the Agricultural Revolution and the Industrial Revolution, the Digital Revolution marked the beginning of the Information Age. The center of this revolution is the widespread production and widespread use of digital logic circuits, and its derived technologies, including computers, digital cellular phones and the Internet. These technical innovations have changed traditional production and business techniques. In 1988, Reserve Bank of India set up a Committee on computerization in banks headed by Dr. C. Rangarajan.

Digital banking digital banking has circulated merged services on the net, which aims to serve both banks and consumers as a means of providing convenient, fast and better experience compared to old form banking. Changes from traditional and digital banking are gradually and it should be defined in the degree of service digitization through a classification in Yes and No. It includes high level process automation and web-based services and can provide APIs for institutional service structure to carry out banking products and transactions. With the help of this digital banking user can access financial data through desktop, mobile device and ATM machine etc. In India, banks are taking traditional banking toward traditional banking. Everyone is eyewitness for it. Today it gets very serious. For this, our Indian government also performs many remarkable works for this facility banking practice. Currently, it is moving towards digital banking services. Everything in the Indian banking sector is going to happen, based on digital banking. Although it was felt for the computerization of the Indian banking service sector in the 1980s with the aim of developing customer service in a convenient and comfortable way, the Reserve Bank of India, under the chairmanship of Dr. C. Rangarajan, for the computerization of banks formed. Banks are not only part of our lives, but also play an important role in our daily lives. For many people, one day will not end without at least one financial transaction. Thus, banks always try to adopt the latest technologies to increase customer experience. Digitization is not an option for the banking industry, but it is indispensable because every industry is being digitized and the banking sector is no exception. Mobile banking is growing faster than online banking.

Conclusion

. To sum up above points, it cannot be wrong to say that due to the adoption of this digitization, there are obstacles in addition to some important changes in banking sector of India. As we are in the digital age, it is not possible to avoid development and services or digital banking. Everyone uses smart mobile devices, which are called smart phones, which are used at any time and at any time to access digital banking services. Thus, digital banking is in place of todays inevitable. As people want convenient banking services, they are very happy to use this digital banking system in

comparison to the traditional banking system, where the customer has to go to the branch of the bank. On the other hand, there are cyber threats in technology that should be properly covered by such high security system. Then, digital banking will be the gift of people of this digital age

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KNOWLEDGE ECONOMY FOR GLOBAL DEVELOPMENT

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INTRODUCTION:- Today knowledge is the primary input in the economic activities of a country. India's achievement in science, technology, astronomy and other allied areas reinforce the fact that the country has tremendous potential as well as a developed vision. India's initiatives have largely developed around three functional pillars of the knowledge economy are:- Education, Innovation and ICTs. The government of India is supporting state governments to establish knowledge based industries by promoting software technology parks, biotechnology parks, export processing zones and so on. ICT has been used as a tool for empowering certain social groups such as farmers and artisans as well as common citizens and it is being adopted at the gross root level through various initiatives and pilot projects. Private/ Public partnerships have been established across India and many corporate organizations are collaborating with non-governmental organizations, local self-help groups for various social development and social welfare programmes. There are two reasons for the development of knowledge based societies:- First, The explosive growth in economy(especially in science and technology) sector. Access to new technologies and services for information provision and the transfer of knowledge is a priority in developing countries like India. Second. Innovative ideas and enterprising minds combined with ICT can go a long way in empowering and enriching the vast majority of the unprivileged rural poor. Various studies have indicated that initiatives for the digital economy in India centered around six "C's :- Computer density, Connectivity, Contents, Cyber Laws, Costs and Common sense. The knowledge economy is defined as the ability of the organization in a society to being together powerful computers and well educated minds to create wealth. Knowledge economy relies primarily on the use of ideas rather than physical abilities and on the application of ICT rather than the transformation of raw materials or exploitation of cheap labour. There are 4 pillars on which Knowledge Economy stands are:- Innovative system, Economic incentive and institutional regime, Information infrastructure and education and training. The India Right to Information Act 2005 came into force from 15th June, 2005 and provides citizens with the right to secure access to information under the control of public authorities. A National Informatics Policy has been formulated by the National Task Force on Information Technology and Software Development which was set up by the Prime Minister on 22nd May 1998. In order to force in 2005 recommended building a peoples movement known as "Marching towards knowledge society" by taking into account the following elements:-

*Social transformation, wealth generation and knowledge protection.

*Stepping up the human resource.

*Capability development by education.

Knowledge Economy is a term popularized by Peter F. Drucker in his book, "The Age of Discontinuity". Knowledge based economy relies primarily on the use of ideas rather than physical abilities and on the application of technology rather than the transformation of raw materials or the exploitation of cheap labour. Knowledge is being developed and applied in new ways. Trade is expanding world-wide, increasing competitive demands on producers. The global knowledge economy is transforming the demands of the labour market throughout the world. It is also placing new demands on citizens, who need more skills and knowledge to be able to function in their day-to-day lives.

OBJECTIVE OF THE STUDY:- In the light of the above statement present research paper aims at highlighting the following points :-

1) Creating a labour force to compete in the global economy.

2) Governing and financing lifelong learning system.

3) Agenda for the future.

4) Financial Literacy.

ANALYSIS OF THE STUDY:- Most of the learning takes place when a worker starts a new job. In the knowledge economy, change is so rapid that workers constantly need to acquire new skills. Now the firms want those workers who are willing and able to update their skills throughout their lifetimes. Countries need to respond to these needs by creating education and training systems that equip people with the appropriate skills. The private education sector is growing rapidly in countries with transition economies as well. At the same time new service providers :- Private sector trainers, virtual universities, international providers, corporate universities, educational publishers, content brokers and media companies have arisen to complement and challenge traditional institutions. This growth of the private sector reflects the rising demand for more and better education as well as dissatisfaction with the traditional education and training system. "Spending on training has increased dramatically". Now corporations are spending more and more on training to become or remain competitive in the global knowledge economy.

To create effective lifelong learning systems, countries need to make a significant change to both the governance and the financing of education and training. In many industrial countries governments that once focused exclusively on public financing and public provision of education and training are now trying to create flexible policy and regulatory frameworks that encompass a wider range of institutional actors. These frameworks include legislation and executive orders, arrangements for ensuring co-ordination across ministries and other institutions involved in education and training activities and mechanisms for certifying the achievements of learners, monitoring institutional and system performance and promoting learning pathways. Within this framework the role of incentives is critical. The private and public sectors need to work together to finance learning equitable options that combine public and private financing. Whatever mechanisms are used financing of learning beyond the basic competencies should include both cost-sharing and subsidy components.

The demands of a lifelong learning system are enormous, and most countries will not be able to implement all elements of the system at once. Countries must therefore develop a strategy for moving forward in a systematic and sequenced fashion. An important step is to identify where a country stands particularly with respect to its international peers. One way in which countries could move

forward would be by establishing national benchmarks for measuring lifelong learning outcomes. Such measures are underdeveloped. Continual reform is needed not only to accelerate the pace of reform but also deepen the extent to which fundamental transformation of learning is carried out. Reform and change must therefore be built into institutions own processes. In addition, policy changes need broad support and dialogue to facilitate ongoing adjustments during implementation. The World Bank can help in this effort by deepening the understanding of implications of the knowledge economy for education and training systems and by disseminating analytical and policy documents on education for the knowledge economy.

According to a survey over 76% Indian adults lack basic financial literacy and they don't understand the most basic and key financial concepts. There is a lack of understanding among Indians about the basic principles of money and household finance. Digitalization has revolutionalized the way we used the banking services and with the technological advancement and interconnectivity of the various services with the services provided by the banking sector there is need to speed up our country's literacy rate, digital literacy rate and financial literacy rates as they all together have an impact on the proper utilization of the digitalization. Financial literacy along with computer literacy is a must to mobilize the savings in the economy and put forth the growth of the economy and puts the society's development on fast track. Many initiatives have started but their reach is narrowed or hampered by various factors. But to keep our pace of digital transition with the world we also need to speed the pace of digital transition. With the world we also need to speed the pace of digitalization along with these basic requirements or basic knowledge or skills which can obstruct the overall transformation or held us back to achieve this goal.

CONCLUSION AND SUGGESTIONS:- The knowledge framework suggests that to be effective knowledge economies in which knowledge is created, disseminated and used well, economies must have four pillars in place. Policy advice would focus attention on which of the pillars is in particular need in terms of appropriate policies, institutions, investments and co-ordination. The World Bank has produced a guide the knowledge assessment methodology, which can be used to assess what a country needs if it is to become a knowledge economy. The knowledge economy presents the most attractive opportunity for lifting Indians out of poverty by enhancing overall productivity and per capita income. Several studies indicate that the Total Factor Productivity (TFP) of a country increases by fostering a strong knowledge economy. It is essential that such an eminent body is supported by leading educational and research institution as well as the private sector. Therefore, the writing is on the wall for us. India has to recognize that she has tremendous stake in the knowledge economy. First, she must concentrate on efforts to create, consume and leverage intellectual property to solve our own challenges to become a globally-competitive knowledge economy. Second, we must undertake rapid upgrade of education facilities-schools, colleges, S&T institutions. Finally, India must create a robust regulatory environment that provides protection and fair reward to create an intellectual property and promotes investment and competition.

It has been suggested that the next evolutionary step after knowledge economy is the network economy, where the relatively localized knowledge is now being shared among and across various networks for the benefit of the network members as a whole, to gain economies of scale in a wider, more open scale. It has been hypothesized that the gradual evolution of network economy would

create a well interconnected economic order, which would then begin to concentrate on the passion of individuals, gradually leading to a passion based economy. The United Nations Commission on Science and Technology for Development report concluded that for developing countries to successfully integrate. ICTs and sustainable development in order to participate in the knowledge economy they need to intervene collectively and strategically.

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DIGITALISATION IN INDIAN BANKING SYSTEM – POST DEMONETISATION SCENARIO

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INTRODUCTION

Banking industry is going through a phase of digitalisation. In today's situation, differentiated and satisfied customer experience has become more important than just providing financial services.

Demonetization refers to Withdrawal of a particular form of currency from circulation. Demonetization is necessary whenever there is a change of national currency. The old unit of currency must be removed and substituted with a new currency unit. The currency was demonetized first time in 1946 and second time in 1978. On Nov. 2016 the currency is demonetized third time by the present Modi government. This is the bold step taken by the govt. for the betterment of the economy and country.

Digital Transformation is far beyond just moving from traditional banking to a digital world. An efficacious Digital Transformation begins with an understanding of digital customer behaviour, preferences, choices, likes, dislikes, stated as well as unstated needs, aspirations etc.. And this transformation leads to the major changes in the organizations, from product-centric to customer-centric view.

Each and every day, new devices / technologies are providing various customer touch points. Every time customers touch a computer or a screen, they are providing an information trail and it's banks' responsibility to understand how they use this trail to move their bottom line upwards. Traditionally, banks spent most of their efforts, time and money on transaction execution, which is nothing but has become a very basic feature of their overall service. While providing expedient, consistent and precise transaction processing ability is still critical, we believe that digitalisation of banking services in India is the lone solution.

REVIEW OF LITERATURE

Chandrawati Nirala, Dr. B. B. Pandey (2017), explained in their article that Government of India encourages people to move towards Cashless Economy. This can be achieved by use of Debit, Credit cards, electronic payment gateway systems such as National electronic funds transfer (NEFT) and Real time gross settlement (RTGS) etc. in India. Also increase in Internet, mobile adoption, new channels like websites, social media and mobile App provides new way for consumers to access financial transactions.

Sriram Devulapalli, Sai Karthik Oruganti (2017), elucidate the effect of demonetization, digital cash has been the hotcake among the citizens of India. Digital cash and online transactions in the

current market scenario have a great effect on e-banking and digital banking. E-banking comprises mainly of electronic funds transfer and usage of online banking services. Electronic banking was offered by the international banks initially since flow of digital cash was not predominant in the Indian market until the advent of demonetization Electronic banking is inferred to be safe and secured, compared to physical banking. E-banking ensures qualitative banking operations compared to traditional banking. However, it has its own limitations and challenges when we talk about security, on the contrary.

Dr. Surajit Ghosh Dastidar, Dr. Rajib Kumar Das (2018), clarified that the Indian banking sector is undergoing a radical change from branch banking to digital banking. Both public and private banks in association with government are presently carrying out intense campaign to bring the users of banking system under digital banking process. However, while over the last few years a large section of the customers have adopted digital banking, many are still reluctant to do so. Therefore, to achieve results, it is imperative to understand the motivations underlying the consumers' adoption of digital banking. In this study, the motivations towards adopting digital banking were identified in case of four branches of HDFC Bank in Kolkata. The findings depict that net banking is primarily used for making various enquiries, online purchases and money transfer. The identified reasons why many customers have not adopted digital banking till today include non-awareness and ignorance regarding the digital banking procedures, scepticism regarding security aspect, reluctance to change long-time habit of manual banking and utilizing branch banking to socialize and pass time in case of retired persons.

Dr. K. Vijaya Venkateswari (2018), makes it clear that technological Innovations have the potential to continue to significantly transform the financial services industry and benefit society. They can replace individual banks' legacy systems, enhance processes, improve efficiencies and strengthen controls. They can also provide opportunities for the creation of new products and services that benefits customers. Ultimately, technological innovations hold great promise for the identification of new customers and the provision of financial services to the unbanked or under banked community in a safe and sound manner.

Mrs. Madhura Ayachit (2017), clears in her paper that digital technologies are evolving at an unprecedented rate all across the globe. India, too is witnessing radical growth in Information and Communication Technology at a very rapid pace. As a result, Indian Banking sector is undergoing huge transformation to offer better and enhanced services to its customers. Continuous innovation in ICT in the banking domain has made Virtual Banking a reality in India. Establishment of Innovation Labs is facilitating the banks to explore various avenues in the banking arena like Biometrics, Artificial Intelligence, Robotics, Data Analytics, Wearable technology etc. Digital wallets have already paved the way for cashless transactions. As the nation welcomes innovations in ICT, banks need to equip themselves with the required infrastructure. As significant proportion of educated urban youth in the nation accepts and adopts virtual banking, banks need to take efforts to reach out to uneducated rural poor too.

Sumit Kamra (2017), in his report as an analyst of 'Happiest Mind' clearly explained the role of technology in Banking Services. He explained that as customers continue to change their channel usage patterns, banks and credit firms need to focus on delivering a seamless customer experience across various touch points. More than just an axiom, Omni-channel banking is a prospect to take

bottom-line on higher note by gaining insights from customers' channels, behaviour and preferences. Today's customers are more sophisticated and tech savvy, and to cater to their specific needs, each customer needs a unique experience from banking. They want the companies to understand their unstated needs as well as their likes.

Manoj, P. K. (2017), examined the implementation of Cheque Truncation System (CTS) in India by the Reserve Bank of India (RBI), the banking regulator of the country, has proven to be a revolutionary step in the history of digital transformation in Indian banking. CTS replaces the traditional paper-based cheque clearing with the most modern digital mode clearing. CTS is faster, efficient and more transparent.

Syamsundar Palanisamy (2017), criticises demonetisation because in a short run it ruins the economy with its side effects on the GDP. It deeply affects the primary agriculture and industrial sectors resulting in the job losses especially unemployment arising out of the complete shutdown of the unorganized and the cash based small scales industry which actually comprises of about 80% of India's GDP. With a clear and efficient way of using the technological advantages India have in terms of the digitization and IT revolution it has gone through over the last two decades. The success and the efficiency of implementing demonetization lies in the preparedness of the entire economy, the government machinery and the awareness amongst the general public and the entire political system being taken into confidence through an effective communication by all means and by the transparent approach of the government implementing Demonetization.

OBJECTIVES OF THE STUDY

The main objective of this paper is to study the impact of demonetisation on digitalisation in Indian banking system.

HYPOTHESIS OF THE STUDY

H-$_{01}$ There is no impact of demonetisation on digitalisation in Indian Banking System.

RESEARCH METHODOLOGY

The purpose of this research is to contribute towards a very important aspect of economic activities known as 'Demonetisation and Digitalisation' with reference to Indian Banking System. The impact of demonetisation over digitalisation in Indian banking system is tested in this paper from October 2015 to September 2018.

The study is based on secondary data collected from the various monthly, quarterly, half-yearly and annual reports of RBI. For the purpose of the study, public enterprise survey reports, other government publications etc. have been used. Journals, conference proceedings and other relevant documents have also been consulted to make the study relevent. The study covers a period of 3 years (i.e. from October 2015 to September 2018). The available data have been analyzed by using various statistical tools like Arithmetic Mean, Standard Deviation, Co-efficient of Variation and Correlation etc. Statistical tests viz. t-test has been applied for the purpose of testing the result in this study.

DATAANALYSIS

DEMONETISATION AND ITS IMPACT ON THE BANKING SECTOR IN INDIA

The RBI has intervened several times for the promotion of digital mode transitions in the place of paper-based ones.

Table No. 1

Monthly Transactions in Digitalisation Mode before Demonetisation

Period	Credit/Debit Card	PPIs	Mobile Wallets	Total Digitalised Payment	Non-Digitalised Payment	Grand Total
Sep-14	2105.65	17.58	82.68	**2205.91**	152083.18	**154289.09**
Oct-14	2215.71	18.17	90.35	**2324.23**	122130.53	**124454.76**
Nov-14	2086.79	18.98	97.71	**2203.48**	123586.63	**125790.11**
Dec-14	2285.17	22.67	113.23	**2421.07**	153106.90	**155527.97**
Jan-15	2212.72	23.65	129.17	**2365.54**	127203.43	**129568.97**
Feb-15	1906.21	24.42	148.88	**2079.51**	111060.56	**113140.07**
Mar-15	2277.09	29.8	168.85	**2475.74**	176778.62	**179254.36**
Apr-15	2797.09	27.57	188.62	**3013.28**	144396.60	**147409.88**
May-15	2404.97	28.2	199.18	**2632.35**	136455.99	**139088.34**
Jun-15	2365.23	32.31	221.17	**2618.71**	163543.20	**166161.91**
Jul-15	2416.40	37.92	235.71	**2690.03**	152523.09	**155213.12**
Aug-15	2411.55	38.74	217.93	**2668.22**	143599.71	**146267.93**
Sep-15	2330.71	40.81	269.6	**2641.12**	148561.53	**151202.65**
Oct-15	2547.76	38.07	305.68	**2891.51**	145579.70	**148471.21**
Nov-15	2509.56	43.4	334.71	**2887.67**	121108.14	**123995.81**
Dec-15	2565.13	44.34	490.29	**3099.76**	153363.35	**156463.11**
Jan-16	2516.85	49.09	465.21	**3031.15**	145846.62	**148877.77**
Feb-16	2468.78	46.19	464.73	**2979.70**	152262.59	**155242.29**
Mar-16	2610.20	57.16	572.8	**3240.16**	193337.51	**196577.67**
Apr-16	2629.00	46.72	519.17	**3194.89**	156204.85	**159399.74**
May-16	2715.38	49.95	608.45	**3373.78**	172716.46	**176090.24**
Jun-16	2595.31	53.47	662.72	**3311.50**	186432.78	**189744.28**
Jul-16	2608.91	53.4	668.04	**3330.35**	179374.46	**182704.81**
Aug-16	2640.81	56.46	1038.97	**3736.24**	187164.17	**190900.41**
Sep-16	2623.94	56.28	1042.46	**3722.68**	199938.64	**203661.32**
Oct-16	2934.78	60.22	1134.93	**4129.93**	174767.90	**178897.83**
Mean	**2453.14**	**39.06**	**402.74**	**2894.94**	**154735.66**	**157630.60**
SD	**233.93**	**13.52**	**308.11**	**518.79**	**23753.17**	**24132.52**
Skewness	-0.32	-0.13	1.13	0.50	0.12	0.13
Range	1028.57	42.64	1052.25	2050.42	88878.08	90521.25
Minimum	1906.21	17.58	82.68	2079.51	111060.56	113140.07
Maximum	2934.78	60.22	1134.93	4129.93	199938.64	203661.32
N	**26**	**26**	**26**	**26**	**26**	**26**

Source: Monthly Bulletins of RBI

For instance, with effect from 01 April 2008, the RBI mandated the use of electronic payment modes for payment of Rs. 10 Million on more. This limit was later reduced to 1 Million with effect from 01 August 2008. Incentives offered in the form of lower service charges promoted this digital shift in multiple modes, like, Real Time Gross Settlement (RTGS), Electronic Clearing System (ECS), and National Electronic Funds Transfer (NEFT). In fact, CTS denotes the latest technology implemented in the field of cheque banking systems in banks. In this study, we have studied impact of Demonetisation and initiatives in the direction of cash-less economy are aggressively being promoted by the Government of India, since it announced demonetisation on 08th Nov. 2016. CTS and other digital modes have gained extreme significance in Indian banking system. In the following Tables and Figures, growth pattern in different types of financial transactions in terms of number (volume) terms and in value terms. (RBI, 2017)

Table No. 2

Monthly Transactions in Digitalisation Mode before Demonetisation

Period	Credit/Debit Card	PPIs	Mobile Wallets	Total Digitalised Payment	Non-Digitalised Payment	Grand Total
Nov-16	1833.46	50.1	1374.43	**3257.99**	189923.16	**193181.15**
Dec-16	1742.03	97.7	1498.18	**3337.91**	198446.10	**201784.01**
Jan-17	2335.10	110.01	1383.01	**3828.12**	183852.75	**187680.87**
Feb-17	2573.13	96.28	1279.93	**3949.34**	166685.02	**170634.36**
Mar-17	2952.64	106.77	1730.88	**4790.29**	242485.36	**247275.65**
Apr-17	2877.17	103.71	1612.65	**4593.53**	188830.19	**193423.72**
May-17	2899.56	106.89	2134.2	**5140.65**	195107.21	**200247.86**
Jun-17	2953.60	85.07	1807.65	**4846.32**	202706.57	**207552.89**
Jul-17	2956.25	98.56	801.36	**3856.17**	193055.72	**196911.89**
Aug-17	3073.12	102.88	795.37	**3971.37**	196258.70	**200230.07**
Sep-17	3163.59	109.77	848.47	**4121.83**	216317.71	**220439.54**
Oct-17	3361.88	116.98	971.13	**4449.99**	200036.07	**204486.06**
Nov-17	3254.08	133.21	1054.24	**4441.53**	221128.91	**225570.44**
Dec-17	3469.97	143.34	1108.4	**4721.71**	212079.24	**216800.95**
Jan-18	3379.02	141.71	1121.37	**4642.10**	232014.35	**236656.45**
Feb-18	3225.95	149.59	1146.07	**4521.61**	198863.12	**203384.73**
Mar-18	3528.84	118.82	1415.03	**5062.69**	244645.91	**249708.60**
Apr-18	3554.28	133.8	1334.39	**5022.47**	206690.53	**211713.00**
May-18	3589.60	155.21	1774.47	**5519.28**	224591.30	**230110.58**
Jun-18	3622.56	163.46	1894.66	**5680.68**	233382.68	**239063.36**
Jul-18	3648.13	175.19	2091.86	**5915.18**	231597.66	**237512.84**
Aug-18	3733.16	189.81	2069.27	**5992.24**	226388.11	**232380.35**
Sep-18	3613.73	177.49	2074.95	**5866.17**	222029.32	**227895.49**
Oct-18	4042.86	221.28	2470.97	**6735.11**	253464.83	**260199.94**
Nov-18	3839.04	185.19	2458.59	**6482.82**	217850.48	**224333.30**
Mean	**3168.91**	**130.91**	**1534.06**	**4833.88**	**211933.24**	**216767.12**
SD	**576.52**	**39.20**	**507.39**	**929.29**	**21342.95**	**21985.04**
Skewness	-1.06	0.39	0.30	0.31	0.03	0.04
Range	2300.83	171.18	1675.60	3477.12	86779.81	89565.58
Minimum	1742.03	50.10	795.37	3257.99	166685.02	170634.36
Maximum	4042.86	221.28	2470.97	6735.11	253464.83	260199.94
Count	**25**	**25**	**25**	**25**	**25**	**25**

Source: Monthly Bulletins of RBI

Table No. 3

Monthly Transactions in Digital and Non-Digital Mode during Study Period

Period	Credit/Debit Card	PPIs	Mobile Wallets	Total Digitalised Payment	Non-Digitalised Payment	Grand Total
Pre-Demonetisation	2453.14	39.06	402.74	2894.94	154735.7	157630.6
Post-Demonetisation	3168.91	130.91	1534.06	4833.88	211933.2	216767.1
Growth in %	**29.18**	**235.15**	**280.91**	**66.98**	**36.96**	**37.52**

Source: Monthly Bulletins of RBI

From Table 1 and Table 2, it may be inferred that the growth in digital transactions have been paced rapidly during the post demonetisation era, as the mean value of payment through Credit/ Debit Cards, Prepaid Payment Instruments, Mobile and Other Wallets were Rs. 2453.14, 39.06 and 402.74 billion respectively in pre demonetisation period where as mean value has increased to Rs. 3168.91, 130.91 and 1534.06 billion.

Table No. 3 showed that the overall growth in payment in India during the study period is 37.52% whereas Non-Digitalised Payment increases 36.96%, which is marginally less than overall growth. On the other hand, growth in digital payment modes especially payment through Mobile Wallets and Prepaid Payment Instruments has increased manifolds. Debit/Credit Cards have not received such momentum in post-demonetisation era. It may be on account of increase in other digital mode of payment such as PPIs and Mobile Wallets.

Table No. 4

Period	Quarter	Credit/ Debit Card	PPIs	Mobile Wallets	Total Digitalised Payment	Non-Digitalised Payment	Grand Total
Pre-Demonetisation	2014 Sep - Oct	2160.68	17.88	86.51	2265.07	137106.90	139371.97
	2014-15 Nov - Jan	2194.89	21.77	113.37	2330.03	134632.32	136962.35
	2015 Feb – Apr	2326.80	27.26	168.78	2522.84	144078.59	146601.44
	2015 May -Jul	2395.53	32.81	218.69	2647.03	150840.76	153487.79
	2015 Aug - Oct	2430.01	39.21	264.40	2733.62	145913.65	148647.26
	2015-16 Nov - Jan	2530.51	45.61	430.07	3006.19	140106.04	143112.23
	2016 Feb – Apr	2569.33	50.02	518.90	3138.25	167268.32	170406.57
	2016 May -Jul	2639.87	52.27	646.40	3338.54	179507.90	182846.44
	2016 Aug - Oct	2733.18	57.65	1072.12	3862.95	187290.24	191153.19
Post- Demonetisation	2016-17 Nov - Jan	1970.20	85.94	1418.54	3474.67	190740.67	194215.34
	2017 Feb – Apr	2800.98	102.25	1541.15	4444.39	199333.52	203777.91
	2017 May -Jul	2936.47	96.84	1581.07	4614.38	196956.50	201570.88
	2017 Aug - Oct	3199.53	109.88	871.66	4181.06	204204.16	208385.22
	2017-18 Nov - Jan	3367.69	139.42	1094.67	4601.78	221740.83	226342.61
	2018 Feb – Apr	3436.36	134.07	1298.50	4868.92	216733.19	221602.11
	2018 May -Jul	3620.10	164.62	1920.33	5705.05	229857.21	235562.26
	2018 Aug - Oct	3796.58	196.19	2205.06	6197.84	233960.75	240158.59
	2018 Nov - Nov	3839.04	185.19	2458.59	6482.82	217850.48	224333.30

Source: Monthly Bulletins of RBI

Table No. 4 inferred that the payment in India in digital mode has increased to Rs. 6485.82 billion in Nov. 2018 from Rs. 2265.07 billion, it is exactly 2.86 times during the period of study. On the other hand Total Non Digital Payment is increased by 1.59 times during the same period. Therefore the overall payment available with the RBI is increased by 1.61 times during the period of study. Use of Mobile Wallets and Prepaid Payment Instruments have been gained momentum during the period of study as these payment modes have increased by 28.42 and 10.36 times in the same period, whereas payment with the help of Credit/Debit Cards have been increased insignificantly.

Table No. 5

Correlation Matrix

	Credit/Debit Cards	PPIs	Mobile Wallets	Total Digitalised Payment	Non-Digitalised Payment	Grand Total
Credit/Debit Cards	1					
PPIs	0.919084	1				
Mobile Wallets	0.785361	0.923213	1			
Total Digitalised Payment	0.930454	0.976498	0.957483	1		
Non-Digitalised Payment	0.856582	0.939459	0.891944	0.928339	1	
Grand Total	0.861493	0.943222	0.896638	0.933352	0.999906	1

Table no. 5 is based on Table No. 4 data. With the help of SPSS 23 Correlation Matrix is prepared. It showed that there is a high degree of correlation among the various mode of payment in India as India is a fast growing economy and size of Indian Economy is ever increasing. One thing to be noticed that Non Digital Mode of payment is still hold the top priority of Indian citizens as more than 97% transaction is still in cash or through cheques in India not by digital mode as shown in Table No. 6.

Table No. 6

Percentage of Transactions in Digital and Non-Digital Mode to Total Payment During Study Period on the basis of Quarterly Average

Period	Quarter	% of Total Digitalised Payment to Total Payment	% of Non-Digitalised Payment to Total Payment
Pre-Demonetisation	2014 Sep - Oct	1.63	98.37
	2014-15 Nov - Jan	1.70	98.30
	2015 Feb – Apr	1.72	98.28
	2015 May -Jul	1.72	98.28
	2015 Aug - Oct	1.84	98.16
	2015-16 Nov - Jan	2.10	97.90
	2016 Feb – Apr	1.84	98.16
	2016 May -Jul	1.83	98.17
	2016 Aug - Oct	2.02	97.98
Post- Demonetisation	2016-17 Nov - Jan	1.79	98.21
	2017 Feb – Apr	2.18	97.82
	2017 May -Jul	2.29	97.71
	2017 Aug - Oct	2.01	97.99
	2017-18 Nov - Jan	2.03	97.97
	2018 Feb – Apr	2.20	97.80
	2018 May -Jul	2.42	97.58
	2018 Aug - Oct	2.58	97.42
	2018 Nov - Nov	2.89	97.11

Source: Monthly Bulletins of RBI

Table No. 7
Correlation Matrix

	% of Total Digitalised Payment to Total Payment	% of Non-Digitalised Payment to Total Payment
% of Total Digitalised Payment to Total Payment	1	
% of Non-Digitalised Payment to Total Payment	-1	1

Again with the help of SPSS 23 we find that there is a perfectly negative correlation between **'Percentage of Digital Payment to Total Payment and Percentage of Non-Digital Payment to Total Payment'.** So the Null Hypothesis **'There is no impact of Demonetisation on digitalisation in Indian Banking System'** is rejected.

CONCLUSION

It has been witnessed that Indian GDP has grown 7.41%, 8.16% and 7.11% in 2013-14, 2014-15 and 2015-16 respectively, but after demonetisation growth rate of GDP has come down to 6.68% in 2016-17. It than increased to 7.32% in 2017-18 to wipe off the losses occurred due to demonetisation. It is further cleared that digital transactions have been increased after demonetisation, but the growth of digital transactions is not as fast as it was pre determined. At last it is concluded that demonetisation has clearly marked on the Indian Banking System as percentage of digital payment in total payment has been doubled with in a period of two years. It is a fairly good sign for Indian Economy. It will lead India to a world power economically.

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KNOWLEDGE ECONOMY AND DISPARITIES IN THE AGRICULTURAL DEVELOPMENT OF RUDRAPRAYAG DISTRICT OF UTTARAKHAND

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Introduction

The prosperity of the region depends directly upon the development of agriculture and industry. Agricultural production however requires power, credit, transport facility etc. industrial production requires not only machinery and equipments but also skilled manpower, management, energy, banking and insurance facilities marketing and transport services. All these facilities and services constitute collectively the infrastructure of an economy and the development and expansion of these facilities are an essential precondition for increasing agricultural and industrial production. Unfortunately, the overwhelming emphasis of the government has been on the provision of infrastructural facilities mainly for the urban areas, the rural areas lagging behind this respect.

STATEMENT OF THE PROBLEM

In India, regional imbalance has been one of the major concerns before policy makers and planners. There had been a huge gap between active and vibrant regions and hinterland during pre-independence period in terms of availability of facilities and this has resulted in the form of unequal levels of development both in terms of economic and human. After independence, reduction in inter-state disparities has been emphasized during successive Five Year Plans, but the menace continued unabated.

For instance, the World Bank (2006) in its reported entitled, "India-Inclusive Growth and Service Delivery: Building of India's Success" has observed sharp differentiation across states since the early 1990s reflects acceleration of growth in some states but declaration in others.

In India disparities in the development of rural areas have been widely observed. They are also the causes of ill-conceived results of the efforts made by regional planners as a matter of fact; there has been no judicious consideration of emphasis to be laid on various developmental activities. Therefore, there are widespread signs of mal-development and is showing no sign of improvement. The problem of regional development in a national context did not get adequate attention of the policy makers.

In India, regional disparity started widening because of ill-conceived investment programmes affected under the colonial rule and also due to the lack of attention paid to the micro-level planning. Since the nature and causes of backwardness are not the same in all the regions, a single micro-level approach will not be an ideal solution. The strategy that is required is one of promoting that sector which is backward and which backwardness is hindering the overall progress of the region.

The development of backward regions and reduction in regional disparities, thus, depends upon the micro-level plans formulated on the basis of the assessment of the local needs, potential priorities and realized level of development. The micro-level plans can be effectively implemented and can be made to realize the desired objectives only when the constituent regions are systematically identified

according to their level of development, the extent of disparities among the regions are assessed and the various regional characteristics like topography, climate, socio-economic dimensions, demographic features and so on are distinctly understood.

Since 1951, when concerted efforts at planned development were intensified in India, the problem of regional disparities in development attracted the attention of the policy makers. However, in spite of the increasing awareness of these aspects, very little has been done in this direction. A systematic attempt at the identification of the backward regions has not been done on a scale that could be of some operational significance.

The analysis of classification of regions done till now, leads one to conclude that the causes of backwardness are the same for the entire district. This leads to formulation of policies with blanket approach which is common to all the blocks in the district. But an analysis of the causes of backwardness at the block-level reveals that all the blocks are not the same. Hence, a general policy like the construction of roads does not lead to optimization of the benefits as the expenditure for the provisions of particular service might be superfluous for some blocks.

If the expenditure on priorities is decided with specific reference to lagging sectors in each block, will lead to optimum utilization of resources and accelerate development and at the same time help to reduce intra-block disparities. This requires identification of lagging sectors in each block or block-level planning. The present study is n attempt in this direction.

The present study attempts to investigate into the patterns of regional disparity in the Haridwar district of Grahwal region, $z = \frac{x - \mu}{\sigma}$ keeping the above postulations in the center of the analysis.

OBJECTIVES OF THE ANALYSIS

- To find out the extent of regional disparities in the levels of Agricultural development of Rudraprayag district
- To suggest for a blue print in order to plan for balanced regional development of Rudraprayag District.

METHODOLOGY

Standard score (z-score) technique will be used for the analysis as pal (1975) and Singh (1978) and many others applied this technique.

The standard score involves standardizing sets of observations in a way which makes two important properties of their distributions, the same for all variables the mean and standard deviation. The mean are set at zero and the standard deviation at unity (smith 1975). The standard score is found out thus-

Where:

Z = Z-Score for ith Block

X = X variable in the ith Block

μ = Mean of variable X

σ = Standard deviation

SELECTION OF INDICATORS

Indicators should encompass the maximum possible domain of the factors that are relevant to the study. In this study Six (6) indicators of Agriculture have been undertaken to witness their availability in the area under study. Agricultural development will be found out through the following indicators:

(1)Percentage of total sown area to net sown area

(2) Area sown more than once

(3) Percentage of net irrigated area to net sown area

(4) Total irrigated area

(5) Use of fertilizers

(6) Total no. of animals

SOURCE OF DATA

Present study is based on secondary data collected from the statistical handbook of Rudraprayag district form district planning office.

About the study Area:

Rudraprayag District was established on 16th September1997. The district was carved out from the following areas of three adjoining districts.

1- Whole of Augustmuni & Ukhimath block and part of Pokhri & Karnprayag block from Chamoli District.

2- Part of Jakholi and Kirtinagar block from Tehri District.

3- Part of Khirsu block from Pauri District.

Internationally Known Shri Kedarnath Temple is at North, Madmaheshwar at east, Nagrasu at southern east and Shrinagar at extreme south. The holy Mandakini originated from Kedarnath is the main river of the district. The total geographical area of Rudraprayg is 2328 Sq. Kms.

According to the 2011 census Rudraprayag district has a population of 236, 857, this gives it a ranking of 585th in India (out of a total of 640).The district has a population density of 119 inhabitants per square kilometre (310 /sq mi). Its population growth rate over the decade 2001-2011 was 4.14 %. Rudraprayag has a sex ratio of 1120 females for every 1000 males, and a literacy rate of 82.09 %. Rudraprayag District population constituted 2.34 percent of total Uttarakhand population. In 2001 census, this figure for Rudraprayag District was at 2.34 percent of Uttarakhand population.

Reference: hhttp://www.census2011.co.in/census/district/576-rudraprayag.htmlttp://en.wikipedia.org/wiki/Rudraprayag_district

REVIEW OF LITERATURE:

A review of studies on regional disparities in India suggests two fold facts-first, such studies are traceable since early 1960's and secondly most of the studies are undertaken at national level. Micro and macro level studies have taken their expression in the form of articles published in magazines or in articles, edited and bounded in the form of books.

Ganguly and Gupta (1976) attempted the identification of the levels of development in India on the basis of primary and secondary components of the standard of living. Rao (19770 attempted a study of Indian states based on principal component analysis. She had selected 24 indicators from four specific sectors for analysis. Four indicators related to agriculture, eight to industry, six to banking and five to education.

Moonis Raza (1978) used 109 indicators related to agriculture, rural economic base, of urban centers, economic infrastructure and social amenities for 58 National Sample Survey regions of India to expose the levels of regional development. He used standard score, ranking and composite score techniques in his study.

Regional disparities within individual states have attracted the attention of only a few social scientists. Alam (1974) studied spatial patterns of regional development of Andhra Pradesh with the help of 30 indicators, while Gosal and Krishan (1984) made an intensive study of the Punjab to trace regional disparities. Dubey(1981) measured regional disparities in the level of socio- economic development of Uttar Pradesh he selected tehsil as the basic unit of investigation and 89 indicators belonging to four dimensions of development: agricultural, industrial, social, and demographical.

Chand and Puri (1983) in their study explores the redistribution of resources after independence. Their study held that India's regional development patterns were significantly fashioned by the development of major port town of Bombay, Calcutta and madras as they stimulated growth in their hinter lands.

A Paper presented at IARIW 31st General Conference, St-Gallen, Switzerland, in August 22-28, 2010. By Dr. Achal Kumar Gaur says that inter-state disparity in total as well as per capita SDP for 20 major Indian states for the period 1980-2002 has been examined with the help of inequality index that are based on properties of Lorenz Curve, Atkinson's social welfare function. Herfindahl's Concentration indices etc. Inter-state inequality trend has also been examined through 'convergence-hypothesis' as β-convergence and ó-convergence. Empirical results revealed disparity among states in terms of total/ per capita SDP has risen sharply as inequality index like Gini, Theil's index, RMD, Kakwani's as well as Atkinson's indices have shown surge, especially after the economic reforms of 1991. This is indeed an alarming situation and a potential threat for stability of a federation like India. Redressel of horizontal economic disparity happens to be an important objective in any scheme of federal devolution of funds among federating states. In India, this task is done by the Planning Commission and Finance Commission. The Thirteenth Finance Commission, Government of India (2010-15) should assign due weight age to this factor in its scheme of devolution of taxes/grants for states such that inter-state economic disparities may be rectified effectively.

Analysis:

Agricultural indicator				
Distt. Rudraprayag				
(1) Percentage of total sown area to net sown area				
S. No.	Z-scores	Level of development	No. Of blocks	Name of blocks
1	0.37 - 0.71	Very high	2	Agastmuni, jakholi
2	0 - 0.36	High	0	_
3	0 - -0.71	Low	0	_
4	0.82 - -1.41	Very low	1	Ukhimath
(2) Area sown more than once				
S. No.	Z-scores	Level of development	No. Of blocks	Name of blocks
1	0.72 - 1.41	Very high	1	Agastmuni
2	0 - 0.71	High	0	_
3	0 - -0.42	Low	0	_
4	0.43 - -0.82	Very low	2	Ukhimath, jakholi
(3) Percentage of net irrigated area to net sown area				
S. No.	Z-scores	Level of development	No. Of blocks	Name of blocks
1	0.37 - 0.71	Very high	2	Agastmuni, jakholi
2	0 - 0.36	High	0	_
3	0 - -0.71	Low	0	_
4	0.72 - -1.41	Very low	1	Ukhimath
(4) Total irrigated area				
S. No.	Z-scores	Level of development	No. Of blocks	Name of blocks
1	0.72 - 1.41	Very high	1	Agastmuni
2	0 - 0.71	High	0	_
3	0 - -0.42	Low	0	_
4	0.43 - -0.83	Very low	2	Ukhimath, jakholi
(5) Use of fertilizers				
S. No.	Z-scores	Level of development	No. Of blocks	Name of blocks
1	0.67 - 1.32	Very high	1	Ukhimath
2	0 - 0.66	High	0	_
3	0 - -0.55	Low	1	Jakholi
4	0.56 - -1.09	Very low	1	Agastmuni
(6) Total no. Of animals				
S. No.	Z-scores	Level of development	No. Of blocks	Name of blocks
1	0.72 - 1.41	Very high	1	Agastmuni
2	0 - 0.71	High	0	_
3	0 - -0.40	Low	0	_
4	0.41 - -0.81	Very low	2	Ukhimath, jakholi

Explanation of above table:

· On the basis of the agricultural indicator, Percentage of total sown area to net sown area Agastmuni and Jakholi are very highly developed though Ukhimath is very low developed in this regard.

- If we see the area sown more than once, Agastmuni is very highly developed though the development of Ukhimath and jakholi is very low.
- Third indicator is % of net irrigated area to net sown area, Agastmuni and jakholi are very highly developed here but Ukhimath is very low in development for this.
- Total irrigated area, is the fourth indicator, for this Agastmuni is very highly developed though Ukhimath and jakholi are very low in development.
- Use of fertilizers is very high in Ukhimath, low in Jakholi and very low in Agastmuni.
- Total no. Of animals are very high in Agastmuni though very low in Ukhimath and jakholi.

Analysis:

The analysis showed that the **Agastmuni block** in Rudraparayag district is **very highly developed** among three blocks **in five indicators out of six** and **very low developed in one indicatoir** i.e. **use of fertilizers**. **Jakholi is good** in percentage of net irrigated area to net sown area but **lagged behind in one indicators** but **worse in three indicators** though the position of **Ukhimath** is **worst among the three blocks,** as it is lag behind in five indicators of Agricultural development.

Suggestions:

Growth is dependent on the quantity, quality, and accessibility of the information available, rather than the means of production. **Knowledge Economy** can be use to resolve the problem in Agriculture sector by policy makers.

The present study relates the found issue in the research with the knowledge economy as a challenge which can be resolved with the use of knowledge in the area of agriculture. As the **knowledge economy** is the creation of value using human intelligence in different fields, Therefore, by Creating new products, services, environments and experiences, Use of analysis and improvement of business processes, use of Marketing including promotion, product development, distribution and sales, use of intensive processes of discovering new knowledge or developing new value and use of media, and by educating workforce.

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CYBER RISKS AND BANKS

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Introduction

Cyber risk is a key challenge before the organizations to keep their data safe from the cyber-attacks. Cyber issues are global issues now. Cyber-attacks cannot be boundary restricted. There is no way to avoid cyber-risk and the most targeted organizations are financial institutions because of money, information and public are the most connected to them. Many times banks have to suffer loss due to the cyber-attacks. But institutions can fight by working very actively to reduce cyber-risk for that organizations need to be updated with latest tools and tactics which are used by hacker to gain any illegal advantage. In addition to the above, white hat hackers report the organizations from cyber-attack. The admirable number and sophistication of cyber-attacks is making the country's important computer network increasingly vulnerable.

TYPES OF CYBER-ATTACKS WITH REGARD TO BANKS

Malware

Malware is software which is installed in a system with no permission of user to compromise the integrity, privacy, or availability of data. Malware is secretly done and can affect data, operating system or applications. It is also called as malicious software or malicious code. It can link itself to legitimate codes and publicity; it can hide in useful applications or repeat itself on the internet. Malware are generally Stealth Viruses, Stealth Viruses, System Trojans, Polymorphic Viruses and Worms.

Ransomware

Ransomware is a mode of malware which blocks the access to victim's data and ask the user to pay ransom money to use online method of payment to gain access to the system or data. Methods of online payment are usually included in virtual currencies like Bitcoins, LiteCoin and Ripple. Ransomware is a method widely used for cyber-crime attack. To hold data hostage Cyber attackers use encryption as a tool. Ransomware is difficult to detect and development of Ransomware technology continues. Because of this, institutions are required to focus on prevention efforts. The efforts of prevention include training for employees and strong information security controls.

Spam & Phishing

Spam is unwanted, undesirable or unsolicited, messages and emails and Phishing is a kind of social engineering, and includes attempts to get some sensitive information. Phishing attempts will be seen by a trusted person or business.

Cyber attackers claim to be an official representative and send an email or message with a warning related to the account information. The message will often ask for a response by following a link to some fake websites or an email address providing confidential information. The format of the message will usually look valid by using appropriate logos and names. Any information entered into that fake link goes to the cyber attackers.

Corporate Account Takeover (CATO)

CATO has become a crescent and serious challenge for schools, businesses, and municipalities of all sizes. It is a sophisticated electronic fraud in which cyber-attackers are capable of controlling the company's computers and confidential banking information to infiltrating bank accounts and transferring money into the accounts controlled by the cyber attackers. Many businesses are susceptible to a CATO attack. Institutions with weak or no computer safeguards and having minimal controls over the online banking systems are very easy targets of cyber attackers. Because of this cyber-crime organizations have to face large losses.

Automated Teller Machine (ATM) Cash Out

At ATM Cash Out, with the help of malware the attacker usually compromises the bank and Payment Card Processor, disables fraud control and withdraws large amounts with the cloned bank card. Cash-out includes large cash withdrawal at the same ATM or multiple ATMs in many areas simultaneously.

Usually medium and small size financial institutions are affected by the ATM Cash Out. ATM Cash-Out Attacks include changing the settings on ATM web-based control panels. Cyber attackers change dispenses function control of an ATM to "Unlimited Operations. This allows withdrawal of funds over the account balance of customer or beyond the cash limit of ATM. Stolen debit card or the ATM information is often used by the attackers to withdraw the funds

ATM skimming

A theft of identity of debit cards is an ATM skimming. The skimming process involves theft of debit card information at the time of the card is swiped during a valid transaction with the bank. Hackers install Skimmers, which is an electronic device over the ordinary card reading slot of ATM machines. Skimming takes two different components for working. First of all, skimmers record the data from the black magnetic strip that is on the back of debit card and steal personal information saved on debit card. However, to get complete access to the bank account, thieves need PIN number. To get ATM Pin, hackers place spy cameras that have been put at a positioned to get a clear view of keypad and record all the PIN related actions.

MAJOR CYBER ATTACKS IN BANKS

In recent years, the types of cyber-attackers have expanded and their dexterity and sophistication have increased significantly. These offenders may be related to hacking groups or criminal gangs, but they may also be sponsored by state as part of a broader and more powerful effort to destabilize other jurisdictions, for example, their networks (i.e. electricity) To interrupt or infiltrate their systems (i.e. communication system, financial system, etc.)

Most cyber-attacks are not aimed at destabilizing the financial system, financial gain and attacks inspired by cyber-espionage can still have dangerous and harmful effects on the economy, as recent vonuplicated ransomware attacks are certified.

ATM System Hacked in Kolkata

In July 2018 Cyber hacked into Canara Bank ATM servers and wiped out nearly Rs. 20 lakhs from various bank accounts. There were over 50 victims and it was believed that cyber -attackers were holding the details of accounts of above 300 ATM users across India. Hackers used the skimming device at ATM to steal the information of debit card holders and created a minimum Rs.10,000 transactions and a maximum Rs.40,000 per account.

India's Cosmos Bank

In august 2018 Cyber criminals hacked India's Cosmos Cooperative Bank's systems and cut off about 94 crore rupees through a withdrawal across 28 countries within a week. According to the complaint unidentified hackers stole bank's Rupay and VISA card customers' information through malware on the ATMs server and siphoned 80 crore rupees and 13.94 crore rupees were transferred to the bank account based in country Hong-Kong by starting swift transaction system of Cosmos Bank.

SIM Swap Fraud

The SIM swap fraud has become a common instance in India. Attackers often use creative means to deceive some innocent victims in giving details related to their SIM card, which is linked to their bank account. From an empty SIM card, the cyber-attackers manage to access the details of bank account, OTP and the other security passwords. Within few minutes, the bank account is wiped clean.

In July 2018, a Delhi-based person lost a sum Rs.13 lakh to the group of gangs who betrayed them using SIM Swap Fraud and now, A new report shows that a Pune based person has lost a huge amount of Rs. 93.5 lakhs in such fraud case.

SUGGESTIONS

- For Internet Banking transactions Security controls like image authentication, multi factor authentication, adaptive authentication, creation of a strong password, etc. are required.
- For the Mobile Banking transaction user needs to make sure that mobile applications are updated and certified. Latest strict standards can be implemented.
- For E-Wallet Transactions awareness material should be included on the Malware attacks, Phishing, vishing and social engineering, Password security etc.
- Banks should present biometrics such as eye-retina, fingerprints scan voice scan for the ATM transactions.
- Banks need to think through their security strategies, administration model and predictive controls to build a secure a safe UPI environment which ensures an intuitive user experience, as well as balance security risk.

CONCLUSION

It can be educed that in the form of financial institutions, banks have higher cyber risk than other institutions. Failures and resistive cyber actions have profound a dominant impact on banks

performance. Cyber-attacks risk and impact on the financial sector is increasing, and financial sector officials are increasingly addressing cyber risk and cyber security. Due to the cyber-risk the banks have to suffer losses although financial institutions are doing regular testing and simulations of incident response capabilities but still they are not completely getting success in it.

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EFFECTS OF DIGITAL INDIA ON INDIAN ECONOMY

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INTRODUCTION

Digital India programme is one of the foundation programmes of Indian Government, and was launched by the Government of India on July 1st, 2015. This campaign focuses on digital development of the country by providing the citizens with such facilities and services so that they are all connected to each other virtually and electronically. The aim is to provide the citizens with such digitally and electronically advanced means so that the rural areas are connected to the urban areas through network devices and services. The programme is designed to ensure that the government services are accessible even to the poor and downtrodden people, through electronic means, thereby, fastening the rendering of services and improving the quality of life of even the lowest stratum of society. To accomplish the vision, steps are being taken to improve the digital infrastructure in the country and to increase the access to network devices through increased band width and advanced digital technologies. Initiatives are also being taken to increase the digital literacy of the population so that the majority of citizens become capable of operating digital gadgets and equipment. This will boost the generation and growth of employment opportunities in the country. To connect the whole country virtually, major innovations and advancements need to be done in the technological field so that the country moves towards being a digitally empowered economy. The Indian economy takes 7th place among the largest economies when measured through nominal GDP and 3rd place when measured on the basis of PPP (Purchasing Power Parity). Due to the growing industrialization in the country, it is considered one among the major G-20 economies. The average growth rate of the economy has been around 7% for the last two decades[1].

In The Indian economy has piqued the interest of the world because of the increased rate of development due to industrialization & automation, increasing customer base due to population explosion and increase in ease of trade due to a reduction in regulation & entry barriers. The Digital India programme is designed in a three components structure[2]. These are:

- Creation of digital infrastructure
- Digital delivery of government services.
- Increasing Digital literacy

The Digital India Programme aims at overall and all-inclusive growth of the Indian Economy, be it agriculture industry (manufacturing) or services. This programme will help in creating employment opportunities in the country so that the GDP and per capita income increases, and the lifestyle of people can be improved. It circulates around three key areas. These are- Developing digital

infrastructure, e-governance and digitally empowering the citizens. Some of the facilities provided under this programme are, digital locker, e-mandi, e-education, e-hospitals, e-banking, e-government, e-sign, etc.

Major Projects Under the Initiative

Digital India comprises of various initiatives under the single programme each targeted to prepare India for becoming a knowledge economy and for bringing good governance to citizens through synchronized and coordinated engagement of the entire Government. Nine projects have been undertaken. These are as follows:

1. **Highways to have broadband services:** Government aims to lay national optical fiber network in all 2.5 lakh panchayats. Broadband for the rural will be laid and broadband for all urban will mandate communication infrastructure in new urban development and buildings.
2. **Easy access to mobile connectivity**: The government is taking steps to ensure that all villages are covered through mobile connectivity. The aim is to increase network penetration and cover gaps in all 44,000 villages.
3. **IT Training for Jobs:** This initiative seeks to train 10 million people in towns and villages for IT sector jobs in five years. It also aims to train 0.3 million agents to run viable businesses delivering IT services. Additionally, the project involves training of 0.5 million rural IT workforce in five years and setting up of BPOs in each North-eastern state.
4. **Manufacturing of electronics:** The government is focusing on zero imports of electronics. In order to achieve this, the government aims to put up smart energy meters, micro ATMs, mobile, consumer and medical electronics.
5. **Provide public access to the internet:** The government aims to provide internet services to 2.5 lakh villages which comprises of one in every panchayat and 1.5 lakh post offices in the next two years. These post offices will become Multi-Service centers for the people.
6. **E-Governance:** The government aims to improve processes and delivery of services through e-Governance with UIDAI, payment gateway, EDI and mobile platforms. School certificates, voter ID cards will be provided online. This aims for a faster examination of data
7. **E-Kranti:** This service aims to deliver electronic services to people which deals with health, education, farmers, justice, security and financial inclusion.
8. **Global Information:** Hosting data online and engaging social media platforms for governance is the aim of the government. Information is also easily available for the citizens.
9. **MyGov.in** is a website launched by the government for a 2-way communication between citizens and the government. People can send in their suggestions and comment on various issues raised by the government, like net neutrality.
10. **Early harvest programs:** Government plans to set up Wi-Fi facilities in all universities across the country. An Email will be made the primary mode of communication. Aadhar Enabled Biometric Attendance System will be deployed in all central government offices where the recording of attendance will be made online

Is India Digitally Ready

There is no doubt in it. India is ready for this. Immediately with the introduction of this campaign, many organizations came forward to lend their hands to achieving India a digitally equipped country. Organizations like BSNL, Reliance Ltd. are coming forward to spread digitalization among rural areas. The Internet Saathi initiative aims to cover 4,500 villages over the next 18 months, starting with Gujarat, Rajasthan and Jharkhand. India is aiming to achieve universal digital literacy across the country. The prime importance is to make sure every individual can be able to leverage the potential of Digital India. The focus is at least one person in a household should transform into an e-literate. This can be achieved by BBNL which is planning to connect 2, 50,000 panchayats under the scheme. This will ensure the digitization and connectivity of local institutions like panchayats offices, schools, other government offices and libraries etc. India is reforming its government through technology in the name of E-Governance with the advancement of technology and digitalization. Under the e-governance programme, out of 252 schemes planned, 222 services have been provided in short span of time. The nine pillars of Digital India programme clearly confirms that India as a nation is at its nascent stage. One can easily assure that India will be digitally ready in the next three years[3].

How Digitalization Paves the Way for Overall Growth of Indian Economy

India is chalking out its own growth strategy driven by digitalization, connectivity, cash -less/ paper-less economy, and start-up innovation ecosystem. Indian economic growth will be driven by the rising tech adoption[2].

Smartphones penetration is rising in the country with 700 million users expected by 2020; we will have 331 million internet users by 2020. With Aadhaar UID, 1 billion users can authenticate 100 transactions per day in real time. India Stack is a complete set of APIs for developers which include Aadhaar for authentication, e-KYC, and e-sign amongst others. All these will propel technological disruption, digital connectivity, the growth of tech start-ups in order to achieve the said vision of Digital India

Technology will allow businesses to transact easily and efficiently, and thus contribute faster to economic growth. The launch of new devices that feature iris scanner that is Aadhaar and STQC certified, will enable cashless and paperless services for banking, passport, taxation, etc. All these, along with Immediate Payment Service, Unified Payments Interface, micro ATMs, m-POS and financial inclusion programs by the Government (such as Pradhan Mantri Jan-Dhan Yojana), will aggressively pave the way for digital payments in India.

After demonetization on November 8, we have seen an adoption of payment solutions like e-wallets, cash cards, bit coins, online platforms and POS (point-of- sale) services. Coming back to India Stack, and how it will revolutionize the space for business, fuel innovation, India stack comprises of four key layers- presence-less, paperless, cashless and consent. This means for tech start-ups and app developers is that they can readily create novel business apps using the infrastructure provided by the stack.

To conclude we cannot emulate other economics. Technology and digitalization will propel growth in India. Digital Bharat is the goal, which will create opportunities for stakeholders and industries alike. The cashless and paperless economy is catapulting small and medium businesses, making it

easier to transact. So much data and transactions are creating huge demands for cyber-security, storage, web performance and faster computing.

A digitally-advanced India will create more job opportunities. Homes, businesses and industries will become smart, cities will be run on the click of a button, transactions will be done without cash hassles and the overall economy will become stronger[4].

Highlights of the Progress in Digital India

- More than 12,000 rural post office branches have been linked digitally and soon payment banking would also become a reality for them.
- The government also plans to make 'digital village' across the country, by linking all schemes with technology. The 'digital village' would be powered by LED lighting, solar energy, skill development centers and e-services like e-education and e-health.
- According to government website electronic transaction aggregation and analysis layer (eTaal), 3.53 billion transactions took place in 2014, which almost doubled in 2015 to 6.95 billion [5]. In a year that will be remembered for "Note Bandi"– a colloquial term for the withdrawal of 86 percent of the value of India's currency in circulation on 8 November – cashless payments in October 2016 increased 22 percent, when compared to October 2015, indicating that Indians have been steadily more accepting of various digital payments modes since last year[5].
- The progressive policies and aggressive focus on 'Make in India' have played a significant role in the resurgence of the electronics manufacturing sector.

Proposed Impact of Digital India

The estimated impact of Digital India by 2019 would be cross cutting, ranging from broadband connectivity in all Panchayats, Wi-Fi in schools and universities and Public Wi-Fi, hot spots. The programme will generate a huge number of IT, Telecom and Electronics jobs, both directly and indirectly. The success of this programme will make India Digitally empowered and the leader in usage of IT in the delivery of services related to various domains such as health, education, agriculture, banking, etc. Digital empowerment of citizens will pay emphasis on universal digital literacy and availability of digital resources/services in Indian languages. The programme will be implemented in phases from 2014 till 2018. The source of funding for most of the e-Governance projects at present is through budgetary provisions of respective ministries/departments in the central or state governments. Requirements of funds for the individual project(s) for Digital India will be worked out by respective nodal ministries/departments but according to government estimate it will cost Rs. 113,000 crore. To implement this government is planning to strengthen National Informatics Center (NIC) by restructuring it to support all central government departments and state governments[6].

A. Economic impact

According to analysts, the Digital India plan could boost GDP up to $1 trillion by 2025. It can play a key role in macro economic factors such as GDP growth, employment generation, labor productivity, growth in a number of businesses and revenue leakages for the Government.

As per the World Bank report, a 10% increase in mobile and broadband penetration increases the per capita GDP by 0.81% and 1.38% respectively in the developing countries. India is the 2nd largest telecom market in the world with 915 million wireless subscribers and world's 3rd largest Internet

market with almost 259 million broadband users. There is still a huge economic opportunity in India as the teledensity in rural India is only 45% where more than 65% of the population lives. Future growth of telecommunication industry in terms of a number of subscribers is expected to come from rural areas as urban areas are saturated with a tele-density of more than 160%.

B. Social impact

Social sectors such as education, healthcare, and banking are unable to reach out to the citizens due to obstructions and limitations such as middleman, illiteracy, ignorance, poverty, lack of funds, information and investments. These challenges have led to an imbalanced growth in the rural and urban areas with marked differences in the economic and social status of the people in these areas.

Modern ICT makes it easier for people to obtain access to services and resources. The penetration of mobile devices may be highly useful as a complementary channel to public service delivery apart from the creation of entirely new services which may have an enormous impact on the quality of life of the users and lead to social modernization.

The poor literacy rate in India is due to unavailability of physical infrastructure in rural and remote areas. This is where m-Education services can play an important role by reaching remote masses. According to estimates, the digital literacy in India is just 6.5% and the internet penetration is 20.83 out of 100 populations. The Digital India project will be helpful in providing real-time education and partly address the challenge of lack of teachers in the education system through smart and virtual classrooms. Education to farmers, fisher men can be provided through mobile devices. The high speed network can provide the adequate infrastructure for online education platforms like massive open online courses (MOOCs).

Mobile and internet banking can improve the financial inclusion in the country and can create a win-win situation for all parties in the value-chain by creating an interoperable ecosystem and revenue sharing business models. Telecom operators get additional revenue streams while the banks can reach new customer groups incurring lowest possible costs.

Factors such as a burgeoning population, poor doctor-patient ratio (1:870), high infant mortality rate, increasing life expectancy, fewer quality physicians and a majority of the population living in remote villages, support and justify the need for tele-medicine in the country. M-health can promote innovation and enhance the reach of healthcare services.

Digital platforms can help farmers in know-how (crop choice, seed variety), context (weather, plant protection, cultivation best practices) and market information (market prices, market demand, logistics)[7].

C. Environmental impact:

The major changes in the technology space will not only brought changes to the economic system but will also contribute to the environmental changes.

The next generation technologies will help in lowering the carbon footprint by reducing fuel consumption, waste management, greener workplaces and thus leading to a greener ecosystem. The ICT sector helps in efficient management and usage of scarce and non-renewable resources[8].

Cloud computing technology minimizes carbon emissions by improving mobility and flexibility. The energy consumption can be decreased from 201.8 terawatt hour (TWh) in 2010 to 139.8 TWh in

2020 by higher adoption of cloud data centers causing a 28% reduction in carbon footprint from 2010 levels.

Challenges For Digital India Few of the challenges faced in the successful implementation of Digital India Programme are[9].

1. **Lack of education–** Majority of population in the country is still not qualified enough to use digital devices and technology. Most of people are not capable of using a simple mobile phone.
2. **Lack of infrastructure and required technology–** The Digital India campaign needs high quality infrastructure to be implemented efficiently. India still lacks the basic infrastructure required to move digitally ahead. The technological infrastructure and technology required for the campaign is still not available that easily in the country. The conditions are even more inadequate in the rural areas. Further, the servers are overloaded due to pressure work.
3. **Financial and technical issues–** India is still a developing country. For a plan like this, huge financial resources are required and the country somehow lacks in that area. It requires financial assistance from other sources. Technical issues like appropriate bandwidth, firewalls, filters, anti-virus software's, protection from hackers, buffering are some of the technical issues the country has to face.
4. **Attitude of citizens as well as government personnel–** For successful implementation of the programme, a wholesome effort is required of both the citizens and the government personnel. But the devil may care attitude is the hindrance in the path. Moreover, the older generation is set in their ways and find the traditional methods of doing things easy and convenient. Indian political power structure and lack of inter-departmental coordination add to the problem.
5. **Cyber-crimes and Lack of confidence–** Cyber safety is still not given as much importance as it should be given. People find it risky to make transactions online due to safety issues. Cyber laws are not paid that much heed too. Also, most of people still have lack of confidence on machines and prefer hand done things. Inept cyber services are also one of the reasons for this.
6. **High costs–** The electronic devices and internet services are still by and large very costly for an average Indian citizen. When a lot of people don't have enough money for the basic life's necessities, spending on electronic devices get out of the picture.
7. **Training needs–** The personnel who are working on this campaign, to transform various government departments from man managed to machine managed, require proper training to do that effectively and efficiently. It's a tedious task to train so many people of different calibers and interest into one common discipline. Most of the population lack the basic technical qualification required for the job.

CONCLUSION

A digitally connected India can help in improving social and economic condition of people through development of non-agricultural economic activities apart from providing access to education, health and financial services. However, it is important to note that ICT alone cannot directly lead to overall development of the nation. The overall growth and development can be realized through supporting and enhancing elements such as literacy, basic infrastructure, overall business environment, regulatory environment, etc.

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INDIAN LITERATURE AND DIGITALIZATION

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Meaning of literature - Whatever enlighten our inner-feelings or conscience that is called literature. From the beginning of civilization human being is expressing his view through different medium. They may be graphic, writing, painting, photography, singing or acting, all these are examples of expression. They may be known as audio-visual literature.

Famous English poet Thomas Arnold defines literature as - "Criticism of Life".

While William Wordsworth says - "Poetry is the spontaneous overflow of powerful feelings, but recollected in tranquility".

Categories of literature - As it has already been said that there are different ways of expressing the views. Materials like- collection of songs, movies, photographs and paintings are known as literature. So far as Indian literature is concerned, it is very abundant. Now it has been the trend to transform any literature into digital form. But this process has pros and cons. Pros are that they become immortal. And cons are that copyright infringement and piracy may possible.

Meaning of Digitization - Traditionally, communications, media were separate. The print media, broadcasting, voice telephony and on-line computer services were completely distinct.

1. Each of these operated on different networks and used different platforms-
2. Each of these was/are regulated by different laws and different regulators, usually at national level.

However, times have changed, we live in a digital age in which it is possible to have a much higher capacity of traditional and new services transported over the same networks and to use integrated consumer devices for purposes such as news, telephony, television or personnel computing. All this has been made possible by one technological leap - convergence.

Although it is difficult to precisely define what "convergence" means. It is most commonly expressed as - "The ability of different network platforms to carry essentially similar kinds of services".[1]

It is a fact that the internet has had and will have a very big role to play in this transformation and development of technologies .By its very nature it promotes convergence. The Net fosters a multimedia environment with sound, image and text transmission and at relatively low costs. The Internet could therefore through digitization achieve things that traditional media even all combined, struggled to do.

Digitization is technology that permits the conversion of text, sound, images, video and other content into common digital form. On digitization, there can be transmitted electronically with little difficulty or cost.

Copyright and digitization - Copyright is the set of rights granted to the first author of an original work that allows the author to exclusively exploit his work for commercial gain. It is pertinent to note

[1] Green paper on the convergence - European commission, Brussels 1997 com (97) 623.

that the protection of a copyright has been stated to extend to only certain specified classes of work. There are-

1. Original literary, dramatic, musical and artistic works.
2. Cinematography films.
3. Sound recordings.[2]

With the amendment of the Indian Copyright Act 1957 in 1994, the definition of a computer program was introduced - "Computer programme means a set of instructions expressed in words, codes schemes or in any other form, including a machine readable medium, capable of causing a computer to perform a particular task or achieve a particular result".

Multimedia works - A multimedia product would include information in the form of text, sound, graphic and even motion picture clips. These works are therefore a combination of several separate copyrightable works brought together by the inventiveness of software. Thus, while the author of the text the composer of the music etc, all entitled to the copyright in their compositions, the software developer who has utilized his own time, effort and expertise to integrate these various components into a seamless products, is also entitled to protection.

Anything viewed on the internet must necessarily be copied in order to be so viewed. When accessing a page on the world wide web, the user usually downloaded a copy of that webpage onto his own computer in order to view it. Under any definition, this act of viewing the images and other digital information would amount to copying of the data and where such data is protected under the law of copyright, the infringement of copyright. To take this one step further, most web browsers provide the user, various options for saving downloaded digital data to disk.[3]

Conclusion - strictly speaking, therefore, the author of the work published on the Internet would be entitled to prosecute the users of the Internet for unauthorisedly copying his work in clear violation of his rights as the owner of the copyright over the work. In fact, while they may not take serious action against fair use of the work for the purpose of general information or research, most authors would not think that posting a work gives consent to any commercial use of it, without permission. This is one further reason for demanding that fresh legislation be passed to address the peculiar position of intellectual property laws on the internet.

In USA, the discussion as to the culpability of an Internet service provider relates to whether such service provider falls within the definition of a contributory infringement or not.

In Sony Corp. v/s Universal City studios Inc,[4] the Supreme Court stated that contributory infringer was one also was in a position to control the use of copyrighted works by others and had authorized the use without permission from the copyright owner.

In conclusion, it may be said that digitization is a new trend in literary works, so it is very pertinent to discuss its side effects,that is related to copyright infringement.

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[2] The Indian copyright Act -1957.

[3] Standing committee in Canadian Heritage, regarding amendments to Canadian copyright law.

[4] 464 US 417 (1984)

EFFECTS OF DIGITAL INDIA ON INDIAN ECONOMY

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INTRODUCTION:-

Digital India is an initiative of government of India to integrate the government departments and the people of India. It aims at ensuring that the government services are made available to citizens electronically by reducing paperwork. The initiative also includes plan to connect rural areas with high-speed internet networks along with making people educate on how to use technology and its services. The new platforms and evolving structures not only just signify the new move towards a whole new world, but also to a educated and well disciplined society. Digital India has three components which include the creation of digital infrastructure, delivering services digitally and digital literacy. The project is slated for completion by 2019. A two-way platform will be created where both the service providers and the consumers stand to benefit. The Digital India group which is chaired by the Ministry of Communications and IT monitor and control this scheme. It is an inter-ministerial initiative where all ministries and departments shall offer their own services to the public healthcare, education, judicial services etc. which leads to ultimately boosting the nation's economy. In order to transform the public services through the use of information technology, the government of India had launched this programme with the vision to transform India into a digitally empowered society and knowledge economy. Digital India initiative has a vision to provide high speed internet services to its citizens in all gram panchayats. Cyber security and safety were provided to the people in the country. As for increasing transparency government services were provided online where citizens are ensured easy access to. Transactions are made easy through electronic medium.

Objectives:-

Here is what the government of India aims to achieve through Digital India initiative:-

1. Development of secure and stable Digital infrastructure
2. To provide government services digitally
3. Digital empowerment of citizens

Its main focus area or we can say pillars of Digital India are broadband highway, universal access to mobile connectivity, public internet programme access, E- governance reforming government through technology, E-Kranti electronic delivery of services, information for all, electronics manufacturing, IT for jobs, early harvest programmes.

Analysis of the study-

In providing high speed internet as a core utility, National Optical Fibre Network (NOFN) was subsumed under this scheme. NOFN proposes seven lakh kms of optical fiber to be laid to connect 250 gram panchayats in 3 years. According to analysts, the Digital India plan could boost up to $1 trillion by 2025.As per the World bank report, a 10% increase in mobile and broadband penetration increases

the per capita GDP by 0.81% and 1.38% respectively in the developing countries. India is the 2nd largest telecom market in the world with 915 million wireless subscribers and world's 3rd largest internet market with almost 259 million broadband users. There is a still a huge economic opportunity in India as the tele-density in rural India is only 45% where more than 65% of the population lives. Future growth of telecommunication industry in terms of number of subscribers is expected to come from rural areas as urban areas are saturated with a tele-density of more than 160%. As per report of "Financial express" Oct, 2018, "India's overall ranking on the government adoption of e-payments has moved up to 28th in 2018, from 36th in 2011, but it needs to do more on digital infrastructure access and socio-economic factors. India holds the top ranking on Business to government(B2G) and Government to Business(G2B) and comes third on Commerce to government(C2G) jointly with Argentina. Most business houses are shifting their operation to the online world. Right from buying apparels to computers to booking tickets and renting out apartments, everything can be done through the internet now. It is a win-win formula for both the customers and the business houses. India was placed in lowly 145th rank out of 150 in Ease of doing business when PM Narendra Modi took over in 2014. Today we are placed 77 and only China with 46 rank is placed better than us. We are on cusp of achieving greatness in the digital economy. 'United Nations e- Governance Index' by 22 positions in 2018 in the same list as compared to 2014. Today, India stands at 96th position in 2018 in the same list as compared to 2014 where India was ranked at 118. Digital India aims to boost E-business and the E-commerce industry with the vision that it would in turn boost the economy as a whole.

The three major government programmes comprises of Jan Dhan Yojana (for rapid growth in financial inclusion) AADHAR (a universal identification system) rising smart phone riddling coupled with the move in July 2017 towards to a fully online Goods and Services tax(GST) system bringing about rising financial access and rapid formalisation of the Indian economy. As per report of Economic Times, "India offers significant new FDI opportunities in the financial, discretionary consumption and infrastructure spaces. It should receive gross FDI inflows amounting to $120 billion by 2027. The projected growth in the economy and the rise in per capita income will upgrade the standard of people of country and will make most of the families of upper middle class in the coming decade and might these changes could result in a multi-trillion-dollar investment opportunity. Digital technologies are being harnessed to empower people, create employment opportunities and bring about transparency. Digital India bridge channelises initiatives like Aadhaar, eSign, digital lockers, Aadhar Pay and BHIM(Bharat Interface for Money) to offer citizen-centric services at marginal costs-or zero cost. The trinity of Jan Dhan, Aadhaar and mobile (JAM) uses more than 116 crore Aadhaar cards, 120 crore mobile phones, including 40 crores smart phones, 110 crore bank accounts, to bring about inclusive development. The use of Aadhaar enables nearly 3 crore e-authentications everyday at no cost. Citizens can get new mobile connections, open bank accounts or avail government services based on Aadhaar-based e-KYC (Know your customer) in a paperless manner. Digital India has been a driver of good governance, epitomising the government's credo of "Minimum Government, Maximum Governance". In order to increase digital literacy Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDISHA) was started with the goal of making 6 crore persons digitally literate. More than 1 crore people have

already been trained under this scheme as of 2018. Former PM Rajiv Gandhi had famously said that of the Rs 100 released by the Centre, only Rs 15 reaches the beneficiary. Welfare schemes had to pass through layers of bureaucracy at the Centre and states, as well as at the district, block and panchayat levels. Their implementation would get delayed by months and involved administrative overheads. Direct transfers of cooking gas subsidies (PAHAL), ration subsidies-through the public distribution system, MGNREGA(Mahatma Gandhi National Rural Employment Act) wages, scholarships and many other entitlements have ensured transparency. Government eMarketplace(GeM) for government procurements is another example of this regime's commitment to removing corruption and ensuring good governance. The World Bank is studying India's innovation in public procurement. India had a very high cash to GDP ratio. Unaccounted cash was one of the main reasons for corruption, black economy, funding of terrorism and Naxalism, electoral malpractices and market distortions. The move gave a huge boost to digital payments. Soil health cards and e-NAM(e National Agricultural Mandi) are programmes to empower farmers. More than eight crore soil health cards have been issued, helping farmers save across on their inputs. The e-NAM brings together disparate mandis into a single marketplace. Thus, working in every area Digital India transforming India into a develop and knowledge economy.

Conclusion of the study:-

Digital India is one of the biggest government programs in the world to bring about sustainable and inclusive societal transformation using digital technologies. The process of making India into a trillion-dollar economy has begun and Digital India is making this dream a reality. Along with providing services to education, health and financial services, a digitally connected India can help in improving social and economic conditioned of people through development of non-agricultural economic activities. Though, it has been only three years to the program, the government needs to pull up their socks and speed up the process of digitizing the entire nation. However, there is still need of massive awareness campaigns, specially in rural areas. Though laptops etc. are being given to meritorious students as prizes, average students as well as adults should also be provided access to the same. People in rural still don't know what actually smart phone means. For them mobile is still a mode of communication only. Lack of digital infrastructure like internet facilities and without it a country cannot think of becoming digital. There are still many rural and urban areas where you find difficulty in having access to 2G network, let alone 3G, 4G. Lack of trust due security risks in digital transaction is not secure and recent hacking incident of ATMs further solidify their fear. Government should bring stringent provision for ensuring digital transaction security. For all these problems government should make thrust on increasing the number of Common Service Centers (CSCs) which provide services related to insurance and banking, digital services, digital literacy and many more fronts should be operated on a large scale of number. Many street vendors, shopkeepers, don't know how to use Swipe machines. There is also very high charges of internet. Most of our industrial and agricultural sector is hugely dependent on cash transaction. By starting use of Digital India resources such as digi-locker and spread awareness about them in society, one can promote the safe and secure systems of cash transactions by using the app like BHIM. The changing demographics of Indian population has made the flagship programmes

a necessity of the hour. We need to change according to the changing times. These are the impediments that will take some time to overcome but certainly not impossible to overcome. Involvement of all stakeholders is required like civil society, volunteers, government. Lot of benefits can be given and hopefully India's gen next is beneficiary.

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AN ANALYSIS OF DIGITAL INDIA PROGRAMMES

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Introduction

Digital India is a campaign launched by the Government of India to ensure that Government services are made available to citizens electronically by improving online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology.

It was launched on 1 July 2015 by P.M. The initiative includes plans to connect rural areas with high speed internet networks. Digital India consists of three core components. These include:

- The creation of digital infrastructure
- Delivery of services digitally
- Digital Literacy

Digital literacy is the knowledge, skills, and behaviours used in a broad range of digital devices such as smart phones, tablets, laptops and desktop PCs of which are seen as a network rather than computing devices. Digital literacy initially focused on digital skills and stand-alone computers, but the focus has shifted from stand-alone to network devices. Digital literacy is distinct from computer literacy and digital skills. Computer literacy preceded digital literacy. Computer literacy refers to knowledge and skills in using traditional computers, such as desktop PCs and laptops. Computer literacy focuses on practical skills in using software application packages. Digital skills is a more contemporary term and are limited to practical abilities in using digital devices, such as laptops and smart phones. Digital literacy is the marrying of the two terms digital and literacy. However, it is much more than a combination of the two terms. Digital information is a symbolic representation of data, and literacy refers to the ability to read for knowledge, write coherently, and think critically about the written word. A digitally literate individual will possess a range of digital skills, knowledge of the basic principles of computing devices, and skills in using computer networks. The individual has the ability to engage in online communities and social networks while adhering to behavioural protocols. The individual is able to find, capture, and evaluate information. Digital literacy requires the individual to understand the societal issues raised by digital technologies and possess critical thinking skills. These skills can be possessed through digital experiences that push individuals to think in a variety of ways through a multitude of media platforms. The evolution of digital media has quickly integrated

into literacy. Digital literacy does not replace traditional forms of literacy. It builds upon the foundation of traditional forms of literacy. Digital literacy allows individuals to communicate and learn in through a plethora of ways. Different kinds of skills ranging from social to critical thinking enable individuals to interpret the meanings of digital devices. In addition to critical skills, digital literacy involves ethical norms and standards of behaviour in online environments. Every online community has its individual sets of norms and rules in regard to creating and circulating information. Behavioural protocols are required in the digital age where there is no longer a clear distinction between online consumers and producers. The unclear distinction between online consumers and producers is referred as prod usage. Digital literacy is one of the nine core elements of digital citizenship. A digital citizen has the ability to be active citizens in online environments and possesses the technical literacy skills necessary to effectively engage with the web. The internet is accessible in their homes and individuals use the internet daily. Other terms, such as 'Information and data literacy', are also used to encompass the same competences as in digital literacy. This term is used in the Digital Competence Framework for Citizens, a tool created by the European Commission to improve citizen's digital competence for work and employability, learning, leisure, consumption and participation in society. Version 2.0 of the framework was created in 2016 which updates the descriptors and terms used (Vuorikari et al., 2016).Digital literacy researchers explore a wide variety of topics, including how people find, use, summarize, evaluate, create, and communicate information while using digital technologies. Research also encompasses a variety of hardware platforms, such as computer hardware, cell phones, mobiles device and software or mobile applications, including web search or internet applications, more broadly. Research of digital literacy is concerned with much more than how people learn to use computers.

Machine learning and artificial intelligence are the biggest trend in marketing right now. Machine learning techniques apply across many of the techniques including Big Data, Marketing Automation, Organic Search and Social media marketing, etc.

List of Digital Marketing Techniques

Here is the full listing of digital marketing techniques:

- **Big Data** (including market and customer insight and predictive analytics)
- **Content marketing Communities** (Branded niche or vertical communities)
- **Conversion rate optimisation (CRO) /** improving website experiences
- **Display** (Banners on publishers, ad networks social media including retargeting and programmatic)
- **Internet of Things** (IoT) marketing applications
- **Marketing Automation** (incl CRM, behavioural Email marketing and web personalisation)
- **Mobile marketing** (Mobile advertising, site development and apps)
- **Paid search marketing**, e.g. Google AdWords Pay Per Click
- **Online PR** (including influencer outreach)
- **Partnerships** including affiliate and co-marketing
- **Search Engine Optimisation** (SEO or organic search)

- **Social media marketing** including Social CRM and Social Customer Care
- **Wearables** (e.g. Apple Watch, activity trackers, augmented reality)

Key Tactics and Marketing Technologies

1. Content Marketing Trends

Content marketing has been in the top 3 for the last 3 years so more focus is there on how to create an integrated content marketing strategy through advice in content marketing toolkit.

Research with HubSpot, illustrated in the Competing on Content info graphic, shows that more businesses are now using a strategic approach (40%), so this is a trend expected to see continuing in 2017. There will be more focus on Measuring Content Marketing ROI as the cost and competition within content marketing increases.

At a practical level, Martech Guru Scott Brinker has talked about the 4th Wave of Content Marketing and more examples of interactive marketing apps - like capability graders and also personalisation tools recommending content.

2. Mobile Marketing (Mobile advertising, site development and apps)

Mobile was in the top 3 three years ago, but as more companies have adopted mobile responsive web design and email templates they have seen less need to focus on it, or at least there are fewer opportunities for growth.

However, research shows that retail conversion rates are significantly lower on smartphone, so there is work to be done for many businesses to optimise conversion on mobile, although they will likely always stay lower than desktop.

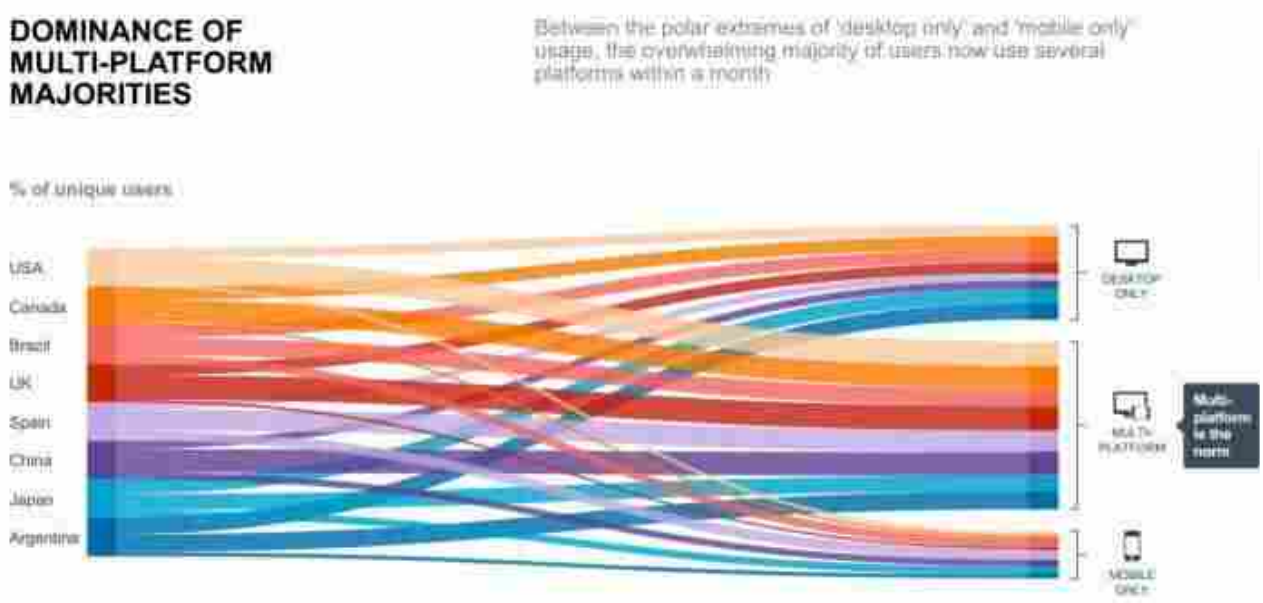
Mobile also has a large impact on search marketing as Google vigorously follows its mobile first mantra. It's a somewhat misleading mantra, since the reality is that many web users are still using desktop, laptop and tablet devices and there is a danger with mobile responsive designs that conversion on higher resolution screens may fall if mobile optimised. Instead, leading companies are looking at adaptive mobile design approaches which have the benefit of serving more relevant, contextual content and CTAs for users and reducing load times.

'Mobile first' is also misleading if we look at the overall customer journey since often different devices may be involved at different points. So a better vision for mobile strategy is treating it as part of a multiplatform or multichannel strategy. As this data from comScore highlighted in our mobile marketing statistics research shows, the multiplatform ribbons for all countries are much broader than users who are mobile only or desktop only.

3. Social media marketing including Social CRM and Social Customer Care

There is still huge interest in social media. Thanks to its reach and options to engage audiences and encourage advocacy or 'social media amplification' to give it the full treatment.

Our social media research statistics summary shows continued growth in social media usage overall, but with reduced popularity of some social networks in some countries. For example Twitter and Facebook are in decline or plateauing in many western markets while Snapchat, Instagram and Pinterest are still growing in usage.



Trends in social media marketing are often controlled by the efforts of the social networks to monetise and this has seen Facebook and Instagram, in particular make changes such that businesses now need to 'pay to play' to get the reach needed to have an impact. They have continued to innovate in their targeting and remarketing options. Jason DeMeyers has these interesting views on social media trends for 2017.

Highlights:

- 68% of brands leverage digital marketing to promote their products and services
- 42% of brands continue to use social media marketing as their primary form of digital marketing
- 33% of brands allocate over 40% of their marketing budget for digital
- 40% of brands say lead generation is their primary objective behind digital marketing

Social Beat, one of India's leading digital marketing solutions company, released its Digital Marketing Industry Report 2018 after the first edition, Digital Marketing Industry Report 2016. The second edition of this annual report provides a comprehensive look into how companies today are using digital marketing to promote their brands. 212 CMOs, CXOs and Brand Custodians across a variety of industries in India participated in this survey over a period of one month. The various industries that were covered in this survey included Startups/Apps (16%), Real Estate (14%), Education (12%), Media/ Entertainment (12%), E-Commerce (9%), Retail/FMCG (7%), Healthcare (6%) and Travel (2%). The remaining 22% comprised of industries falling beyond these 8 sectors. With such a diverse sample, this report provides a complete picture of digital marketing in India.

The survey revealed the growing influence of digital marketing, with 68% of brands currently using digital marketing in their promotional strategies, while less than 9% use print ads, radio and television. Commenting on the findings of the report, Vikas Chawla, Co-Founder of Social Beat said, "One of the most significant insights gained from this report is that brands across all industries are beginning to use more of digital strategies in their overall marketing efforts, as compared to traditional media. This is very encouraging because it means that the use of digital marketing is going to become increasingly important for brands."

Along with the increased use of digital marketing, brands are also beginning to allocate larger portions of their overall marketing budgets for digital. While 57% of brands surveyed spend less than Rs. 50,000 per month on digital marketing, as many as 21% spend between Rs. 50,000-2 lakhs per month. Additionally, 33% of brands allocate more than 40% of their total marketing budget for digital marketing alone. This increase in digital spends is crucial for brands if they want to reach out to India's Next Billion Internet Users in Tier 2 And Tier 3 Cities And Towns.

The report also reveals what results brands are looking to achieve through their digital marketing efforts. 51% of brands use social engagement as the primary parameter to measure the efficacy of a digital marketing campaign. Speaking about this, Suneil Chawla, Co-Founder of Social Beat said, "This shows that brands are hoping to establish a personal connect with their consumers by keeping them engaged on social media. Maintaining a strong digital presence can encourage brand awareness and loyalty among audiences."

Facebook continues to dominate with 49% of brands saying that it gives them the best results. Following closely is Google Plus with 32%, while LinkedIn and Instagram have 13% and 7% respectively. The 2018 report also shows a diversification in the platforms used for digital marketing. While previously, 89.25% of brands used Facebook according to the 2016 report, they are now trying out a larger variety of digital marketing channels. 50% of brands now use Google and Instagram, while 40% use Facebook, LinkedIn and YouTube. This also clearly points to the immense popularity Instagram has gained over the last year among digital marketers.

One of the most interesting findings from this survey was the shifting marketing objectives of brands. In the 2016 Digital Marketing Industry Report, 72% brands reported brand awareness was their primary goal. In the 2018 report, however, a majority of brands said lead generation and sales were their biggest goal from digital marketing. David Appasamy, Head of Brand and Strategy at Social Beat said, "These numbers mean that brands are realising the potential of digital marketing and seeking measurable results from it. Digital marketing in India is showing a clear evolution in terms of quality and execution."

Leads have clearly become one of the biggest priorities for brands, with 42% saying that Generating High-Quality Leads was an area they would like to improve upon in the future. Effective strategies like Personalised Home Pages For Lead Conversion are likely to become more important.

For most brands, social media marketing continues to be the biggest form of digital marketing used. While 42% of brands use social media, brands are also using landing pages (21%) and search engine optimization (7-8%) for their digital marketing efforts. Content marketing, Influencer Marketing, display advertising and mobile apps are also growing in popularity.

The Digital Marketing Industry Report 2018 clearly shows the growing importance of digital marketing in every industry. Digital marketers in India should seize this opportunity to deliver quantifiable, significant results for brands through a variety of innovative strategies.

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EFFECT OF DIGITALIZATION ON INDIAN ECONOMY AND ITS RELEVANCE TO FINANCIAL LITERACY

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Introduction:

The Indian economy has seen a lot of changes from being self-reliant to opening its door for global trading by allowing LPG(Liberalization, Privatization and Globalization) in 1991 under the then Finance Minister Mr. Manmohan Singh. And since then there is no seeing back. According to the latest Economic Survey 2015-16, the Indian economy will continue to grow more than 7 per cent in 2016-17. According to Fitch Ratings Agency, India's Gross Domestic Product (GDP) will likely grow by 7.7 per cent in FY 2016-17 and slowly accelerate to 8 per cent by FY 2018-19, driven by the gradual implementation of structural reforms, higher disposable income and improvement in economic activity. The recent steps of the Indian government have shown positive results in the growth of the GDP. According to a Goldman Sachs report released in September 2015, India could grow at a potential 8 per cent on average during from fiscal 2016 to 2020 powered by greater access to banking, technology adoption, urbanisation and other structural reforms. The 1990s also saw the entrance of technology in India and people were introduced with the use of personal computers and gradually the automation took every sector by storm and now we can see the virtual world that exists and anything can happen in it from uniting the world to initiate a war if not handled properly. But in a developing country like India the process of digital soundness has been slow and got a huge push to go digital when the demonetization shook everyone. Although there have been various initiatives taken by our Honourable Prime Minister Mr Narendra Modi such as Make In India, Swatch Bharat Abhiyan, Digital India etc. But it was during this money crunch when people started recognising the benefits of being digitally sound and how useful it is. Our government has emphasised ongoing cashless as it will make transactions smoother and transparent and eliminates the existence of parallel economy which poses threat to the peace in our country and also helped in their financial inclusion plan and has seen that demonetization has made the accounts opened under PradhanMantri Jan Dhan Yojana operational. As rightly said by Rajat Gandhi on financial inclusion "No matter how many banks may open and how many boots you have on the ground, if the person does not know about the financial options that are open to him, policies, schemes and financial instruments will mean little. It is important for a person to know what to look for and only then think of the benefits that he can obtain from it. " Thus this makes the financial literacy all the more important. Financial inclusion is a quantitative term and financial literacy is more about the quality. Financial literacy focuses on the understanding one should have to how to use and manage the money efficiently and reduce the risk and save their money from environmental changes such as changes in the economy, inflation etc. With the demonetization people have also realised how important it has become for them to know about their money and what affects it the most and how they can protect. During this phase digital awareness has also gained importance and people are also

willing to learn the new modes available for them to manage their money in the cashless way. During this time the online payment options have helped people to survive the cash crunch they faced and have also become the driving force for digital literacy and financial literacy.

Objective:

1. To understand the obstacles in the path of digitalization and the economic growth.
2. To understand how every step taken towards financial literacy is affected by various factors and how they are interrelated and interdependent.
3. To understand the requirement of financial literacy.
4. The findings of the study will identify the role of financial literacy and how these policies can be executed in the Indian economy.

Methodology: The study is exploratory and quantitative in nature. The secondary information is used for the analysis of the problem. Sources for the secondary data are originated from the various sources like special investigation team report, newspaper and Reserve bank of India (RBI) websites. Digital World and Digital India: In the Global Information Technology report 2016 published by World Economic Forum India Ranked at 91stposition in Network Readiness Index among 139 countries slip down by 2 positions in the overall ranking. The change is marginal but this drop is an indicator of our slower pace than other countries. In the overview given the World Economic Forum, the lack of infrastructure (based on which it is ranked 114th) and low levels of skills among the population (101st) remain the key bottlenecks to widespread ICT adoption, especially in terms of individual usage (120th). A third of the Indian population is still illiterate (95th) and a similar share of youth is not enrolled in secondary education (103rd). India's performance in terms of providing online services and allowing e-participation has so far been in line with that of peer countries, but not the global best. Only 15 out of 100 households have access to the Internet and mobile broadband remains a privilege of the few, with only 5.5 subscriptions for every 100 people. This is in spite of the fact that affordability has long been one of the strengths of the Indian ICT ecosystem, with the country ranking 8th this year in this area. There is a deep divide that persists between well-connected metropolitan hubs and remote rural areas, where even the basic infrastructure is insufficient.

The Digital India initiative started by our honourable Prime Minister Mr.Narendra Modi is one of the necessary steps needed for our economy to compete with the digitalization transition going on around the world and aims to close the gap by fostering investment in digital infrastructure, improving digital literacy, and increasingly providing online services to citizens. Digitalization and GDP Growth: Impact of digitalization on a country can be assessed on the basis of its impact on the government, on the economy and the society. We have seen a major change in every sector with the emergence of digitalization. The digitalization has created new job opportunities, have led to innovation in very sector and also led to the growth of the economy i.e. have helped in the GDP growth of the country. The government has emphasized on the digitalization as it brings transparency, better control, better job opportunities, it also provides an ease of access to the people and an upward movement in their quality of life. The study conducted by Strategy&(formerly known as Booz and Company)Shows that the Impact of Digitalization on the Indian Economy and Requirement of Financial Literacy Proceedings of International Conference on Recent Innovations in Engineering and Technology, Jaipur, India, 18th

- 19th Feb'2017, ISBN: 978-93-86291-63-9 102 increase and effective utilization of digitalization can increase their GDP. They analysed that constrained economies realize a 0.5% increase in GDP per capita for every 10% increase in digitalization, while advanced digital economies show a 0.62% increase in GDP per capita for every 10% digitalization increase.

India is known as the powerhouse of the software industry and is in a leading position in global sourcing market but there is still a great deal of work to done for its Digital India campaign. Digitalization will be helpful if it can reach the maximum people and for that each and every citizen of the country should be able to easily access the facilities for which they not only need to be connected to internet but also have digital literacy to be able to use facilities provided to them. The divide between well-connected metropolitan hubs and remote rural areas is one of the main aims of Digital India Program. For this the Central government is hopeful of achieving the complete rollout of broadband network across 2.5 lakh village panchayats in the country by 2018 as per Bharat Net programme, which aims to provide broadband connectivity to all panchayats in the country, the panchayats will have an ecosystem that will further boost the connectivity and bridge the digital divide in the country. India has also started collaborating with various countries and business organizations (like Google, Cisco etc.) for speeding up its digitalization process by infrastructural development, increasing access to internet and also started the transformation of cities to smart city. This Campaign also got some propellant in the form of free/cheapest 4G mobile data and cheapest Wi-Fi broadband for the customers. Company Reliance Jio Infocomm Limited (RJIL) a subsidiary of Reliance Industries gave push to internet usage by introducing ground smashing data pack rates, at initiation of the project by Reliance the SIM was issued free of cost with 4GB 4G data just by submitting the photocopy of Aadhaar card and IMEI no of your 4G or LTE or VOLTE enabled handsets and after the end of March 2017 at a price lowest of all other service providers.

Digitalization and Demonetization: Digitalization transition through Digital India Programme aims to provide the much needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology, eKranti - Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes. Every pillar has its own importance, complexities in implementation and is a propellant for the overall growth of the country.

1. **Broadband Highways:** It covers three components broadband for all rural, broadband for all urban and National information infrastructures.
2. **Universal Access to Mobile Connectivity:** It focuses on network penetration and filling the gaps in connectivity in the country.
3. **Public Internet Access Programme:** To provide Common Services Centres (CSCs) and Post Offices as multi-service centres.
4. **e-Governance:** Reforming Government through Technology: Government Process Reengineering using IT to simplify and make the government processes more efficient is critical for transformation to make the delivery of government services more effective across various government domains and therefore needs to be implemented by all Ministries/ Departments.

5. **e-Kranti:** Electronic Delivery of Services: The Government approved the National eGovernance Plan (NeGP), comprising of 31 Mission Mode Projects (MMPs) and 8 components. e-Kranti is an essential pillar of the Digital India initiative and there are 44 Mission Mode Projects under e-Kranti, which are at various stages of implementation.(includes Banking, Post office, Income tax, Land records, Agriculture, Gram Panchayats etc.)
6. **Information for All:** Online hosting of information & documents to facilitate open and easy access to information for citizens.
7. **Electronics Manufacturing:** It focuses on promoting electronics manufacturing in the country with the target of NET ZERO Imports by 2020 as a striking demonstration of intent.
8. **IT for Jobs:** It focuses on providing training to the youth in the skills required for availing employment opportunities in the IT/ITES sector.
9. **Early Harvest Programmes:** It consists of those projects which are to be implemented within short timeline.

Digitalization is a boon and needs to be utilised properly with the recent case of demonetization we can assess that it has helped people during the demonetization from Nov. 8 2016 to Dec. 31 2016 when the country faced cash crunch, when Rs. 500 and Rs. 1000 notes were scraped and new currency was circulated in replacement of old notes. This step not only shook the tax evaders but also pushed India to become more digitally sound country and has also highlighted the benefits and need to go cashless (or have a less cash based economy).Demonetization has also increased the transactions from mobile wallet and digital payment channels. Paytm said it hit a record of 5-million transactions a day, processing Rs.24,000crore worth of payments, less than a week into the Indian government's decision to demonetise Rs.500 and Rs.1,000 notes making it the largest digital payments company in the country It may be seen as a temporary phase but the ease of access and availability has made more of a good alternative than the paper or plastic money. With the adaptation of technology in the banking sector more and more transparency came in the flow of money in the economy.

PradhanMantri Jan DhanYojana gave push to financial inclusion that everyone whether from urban area or from rural area should have a account so that everyone is connected in the economy and demonetization led to the operationalization of Jan Dhan accounts which were opened under the scheme. It also had multiple benefits like people who did not had the identity proofs registered themselves for Aadhar card and other identity proofs and will also help in direct transfer of benefits to the concerned person. Digitalization in this situation helped to have a virtual access to the money and with the concept of e-kranti in the banking sector it will become easier for the people to avail the financial services provided by them. Having a bank account is not the only matter of concern but also having the knowledge that how their money gets affected by economic situation of the country and various other factors for having a control over their finances is also important. When people are financially literate, they are more likely to explore the products and services offered by banks and use them for their benefits. This accelerates the pace of financial inclusion, where everyone can access the basic banking facilities rather than relying on the orthodox systems of money market such as borrowing money from money lenders on illogical interest rates. Financial inclusion and financial literacy are two essential ingredients of an efficient economy. Thus financial literacy is what also needs the attention of

the masses and with all the latest advances happening around, it is becoming a matter of prime concern. Financial education is "the process by which financial consumers/investors improve their understanding of financial products and concepts and, through information, instruction and/or objective advice, develop the skills and confidence to become more aware of financial risks and opportunities, to make informed choices, to know where to go for help, and to take other effective actions to improve their financial well-being."

The financial literacy level majorly depends upon the education and income of the individuals; the social factors such like family size, family background, age, regions nature of employment have a little impact on this. With the digitalization there is an ease of access to the money as the banking system has evolved with the time and provides the customer with different facilities like online payment of their monthly expenses such as electricity bills, payment of premiums etc. With all this growth and development people need to aware about the problems associated with digitalization of finances.

Financial Literacy: According to a survey conducted by Standard & Poor's, over 76% Indian adults lack basic financial literacy and they don't understand the most basic and key financial concepts. Another survey of "Financial Literacy among Students, Young Employees and the Retired in India" conducted by IIM-A supported by CITI Foundation reveals that high financial literacy is not widespread among Indians where only less than a quarter population have adequate knowledge on financial matters. There is lack of understanding among Indians about the basic principles of money and household finance, such as compound interest, impact of inflation on rates of return and prices, and the role of diversification in investments."In some studies it is revealed that financial literacy affects the financial behaviour of the people and thus through proper education they will be motivated to take the right financial decisions, get to know about the financial products and services available to them and also inculcates a habit of saving and protecting their money. Digitalization has revolutionized the way we used the banking services and with the technological advancement and interconnectivity of the various services with the services provided by the banking sector there is need to speed up our country's literacy rate, digital literacy rate and financial literacy rates as they all together have an impact on the proper utilisation of the Digitalization.

Financial literacy along with computer literacy is a must to mobilise the savings in the economy and put forth the growth of the economy and puts the society's development on fast track. Many initiatives have started but their reach is narrowed or hampered by various factors. But to keep our pace of Digital transition with the world we also need to speed the pace of digitalization along with these basic requirements or basic knowledge or skills which can obstruct the overall transformation or held us back to achieve this goal.

Conclusion: The digitalization brings innovation, ease of working, new job opportunities and growth in the economy. It helps to bring transparency in the system and more transparent are the flow of funds in the economy less is the problem of tax evasion, parallel economy etc. But with all these benefits available it also makes it necessary for the people to have basic financial knowledge and a push towards the importance of the financial literacy. With the help of which they can protect their money in situations like inflation, depression, and know about different financial products and services to save it for their better future. Digitalisation can also play an important role in achievement this goal

as it can have a greater reach to the people. By this we can reach on a conclusion that the new technology needs to harnessed well and for this it is not only the availability but also the knowledge to use it and get benefits from it.

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IMPACT AND EFFECTIVENESS OF CELEBRITY ENDORSEMENT ON SOCIAL MEDIA TOWARDS MOBILE PURCHASE BEHAVIOR AMONG GENERATION Y

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I. Introduction

Initially, the social media sites were generated with the intention of connecting people, but recent years have witnessed their explosive growth as they played an important role in changing the way people communicate. People tend to post updates about their daily activities and maintain the interpersonal relationships with their friends and relatives. A micro blog posted by celebrities can be reposted or commented thousands of times in a few hours. Therefore, social networking sites (SNS) are now serving as an emerging type of tools for celebrities to build reputation and interact with fans. It will be of great benefit to analyze social influence via social platforms in many cases. For instance, analyzing the influence of celebrities is desirable for ad agencies to choose better advertisement strategies; finding the most influential users can help celebrities to promote themselves more efficiently.

With social media, the marketers have been able to develop trust and target customer through messaging, which has created an eye-popping impact. In doing so, they have shown that social media creates content more credible and produces reaction unlike other mass media tools we are accustomed to. Thus it is helping the marketers to emulate the success.

According to the researches, it is witnessed that users spend more than 20% of their time online on social media sites. Facebook alone has a worldwide market penetration rate above 12%. Mobile use of Facebook is growing even faster, at a 67% annual clip. The amount of information seen during a single day gives a more startling indication of social media's enormous influence.

These are not only uses of social media. YouTube's analysis of its videos indicates 100 million people take some sort of "social action" every week (by liking, disliking, commenting, etc.). These actions doubled in the span of two years. Facebook now integrates social actions in its online ads, for instance by allowing users to see if their friends have liked or voted on products being advertised. Similarly, hash tags on Twitter (and now other social media platforms) have given users another quick and easy way to express their likes, dislikes, interests, and concerns, and these present further opportunities (or challenges) to businesses that want to stay abreast of these sentiments.

This paper basically tries to analyze the effects of the growth of social media and its implications on the youth buying behavior. This paper also tries to find out the impact of celebrity endorsement as a tool of communication.

II. Review of Literature

1. Celebrity endorsement

Celebrities are people who enjoy communal appreciation by a large share of a certain group of people possessing attributes like attractiveness, extraordinary lifestyle are just examples, and specific common characteristics cannot be observed, though it can be said that within a corresponding social group celebrities generally differ from the social norm and enjoy a high degree of public awareness (Schlecht, 2003). Roll (2006) provided a definition of endorsement by stating that: "Endorsement is a channel of brand communication in which a celebrity acts as the brand's spokesperson and certifies the brand's claim and position by extending his/her personality, popularity, stature in the society or expertise in the field to the brand.

On reviewing the literature on the effects of celebrity endorsement, Agrawal and Kamakura (1995) suggest that celebrities enhance message recall, make advertisements believable, improve brand recognition and facilitate a positive attitude towards the brand. Purchase intentions and attitude towards advertisement are considered in this study, for looking into the effect of celebrity endorsement on customer behavior.

Researchers have proposed several theories attempting to explain how celebrity endorsement in advertising works. McCracken (1989) has proposed a three-stage meaning transfer model. It proposes that an endorser's credibility and expertise first transfer meaning to his or her public image; the endorser then transfers the meaning to the brand being endorsed. Finally, the meaning is transferred to consumers. Celebrities who are credible can influence consumers to comprise trust on the brand if they have relevant knowledge, skills or experience and are perceived to be unbiased (Ohanian, 1990). In addition to it, knowledgeable and skillful celebrities who are expertise in a particular area can make consumers more willing to purchase the advertised brand (Ohanian, 1991). The trustworthiness of the celebrity is supportive element underlying source credibility, but research has shown that it is not a factor in increasing consumers' intention to try a brand (Hakimi et al., 2011; Ohanian, 1991). Research has shown that consumers expect congruity between a celebrity endorser's image and the brand being endorsed (O'Mahony and Meenaghan, 1997).

Relationship between celebrity endorsements and brands was examined by Mukherjee (2009), as well as the impact of celebrity endorsement on consumer's buying behavior. In his opinion, celebrity endorsement is always a two-edged sword and it has a number of positives—if properly matched it can do miracle for the company, and if not it may produce a very negative consequences for the brand and company at all.

Patra and K. Datta (2010) from their study concluded that selection of right and appropriate celebrity for brand endorsement is a challenging proposition. The advertisers and the agencies should consider various dimensions while celebrity selection. Marketers often choose celebrity endorsers who are attractive, credible, or who have expertise while at the same time matching up with the desired brand image (Hakimi et al., 2011). Physically attractive celebrity endorsers can improve a brand's image and encourage consumers to purchase that brand (Hakimi et al., 2011). Sonwalkar, Kapse and Pathak (2011) concluded that celebrities act as major opinion leaders and plays a vital role in brand recall. They are helpful in initiating a desired state of need among people but do not bring credibility to

any advertising message. Arora (2011) in her study stated that a celebrity can enhance the image of a product in many ways. It is the role of marketer to ensure the appropriate fit between the product and the celebrity. She further stated that Celebrity Endorsements, on one hand give support to the brand but in no way guarantees that the disadvantages associated with the same could be avoided. Celebrity endorsers who are credible improve brand credibility, and greater credibility increases consumer-based brand equity. The positive correlation between the endorser's credibility and consumer-based brand equity is mediated by the brand credibility (Spry et al., 2011).

According to Choi & Rifon, 2012, the effect of message senders has a positive impact on the success of the message; in this celebrity endorsement has been revealed as a popular advertising strategy. Consumers' perception towards the attractiveness, expertise, and trustworthiness of the celebrity enhances their attitude toward the product, and also increases their purchase intention (Choi & Rifon, 2012; Eisend & Langner, 2010). Agrawal and Dubey(2012) stated in their findings that the celebrity endorsement is an effective tool to affect positively the consumer's decision towards a product; Bollywood stars are the rulers of the advertisement domain in India and the male endorsers are more popular and effective than their female counterparts.

Shukre and Dugarthe (2013) suggested the right use of celebrity can escalate the Unique Selling Proposition of a brand to new heights; but a cursory orientation of a celebrity with a brand may prove to be claustrophobic for the brand. Marketers should take care of the gender of the celebrities endorsing the product as it matters to the consumers. Important factors namely Pleasant, Proficient, Elegant, Gender biased, Multiple endorsers, Charismatic, Execution, Acceptable should be taken care of while endorsing a celebrity. Although previous findings provide insight into the advertising effectiveness of celebrity endorsement, it is not suitable in all cases, and other endorsement strategies and types of communication may be more effective (Wei & Lu, 2013).

Pradhan, Duraipandian & Sethi (2014) investigated the relative impact of three pairs of personality congruence: celebrity–brand, brand–user, and celebrity–user, on brand attitude and BPI, thereby supporting the applicability of McCracken's Meaning Transfer Model. The results indicate that while user–brand and brand–celebrity personality congruence have a significant impact on brand attitude and purchase intention, celebrity–user congruence does not. Further, brand attitude is found to be a partial mediator on the relationship between the pair-wise personality congruence on BPI. The findings have major implications for marketers in understanding the significance of personality congruence among celebrity–brand–user in the formation of brand attitude and purchase intention that can be used in positioning and in increasing the advertising effectiveness of brands using celebrity endorsement.

Celebrity endorsements devised by marketers are not always credible to consumers and, therefore, the use of ordinary (non-celebrity) individuals as endorsers has gained popularity (Munnukka, Uusitalo, & Toivonen, 2016).

2. Generation Y and Celebrity Endorsement

Erikson (1968) has argued that adolescents form primary attachments to family and friends and secondary attachments to famous persons including media celebrities. For Generation Y, celebrity figures are an important factor in self-concept development (Adams-Price and Greene, 1990). They

perceive a celebrity as their ideal self-image and strive to develop personality traits, attitudes, values, and physical appearance similar to those of their idols (Boon and Lomore, 2001; Caughey, 1994).

Vicarious role models including favorite entertainers and athletes have conclusively been shown to influence Generation Y consumption intentions and behavior (Martin and Bush, 2000). Sports celebrities have also been shown to generate positive word-of-mouth recommendations for brands, leading to purchase intention and follow-through among ''Generation Y'' consumers (Buksa and Mitsis, 2011; Dix et al., 2010). Most of the empirical studies of celebrity endorsement are quantitative in nature. In the celebrity endorsement literature, existing studies show lack of consensus in empirical findings and partial support of the existing main theoretical framework (Tantiseneepong et al., 2012).

III. Research Objectives

In order to target students (youth) consumers successfully, advertisers on social media need to understand how students respond on social media using celebrity endorsement. The current study has the following research objectives:

- To analyze the perception of Generation Y consumers towards celebrity endorsement on social media.
- To examine the impact of celebrity endorsement on Generation Y mobile buying behavior on social media.

IV. Research Methodology

By considering the objectives and purpose, this study can be categorized in exploratory research, where the research is executed to explore the likelihoods of undertaking a larger research study.

4.1. Data Collection:

An extensive primary survey has been conducted through a well-structured questionnaire. The focus of the questionnaire is on the views of the respondents about their purchase information, awareness of brands, influence of celebrities on the purchase decision and views about the marketing of brands on the social networking websites Facebook, Instagram and Twitter.

Likert scale statements were used to capture the behavior of students on social media advertising. A 5-point Likert scales, ranging from "1" (strongly disagree) to "5" (strongly agree) is used here. A pilot survey of 25 respondents testing has been done in Dehradun. To check the reliability of the questionnaire, Cronbach's alpha was also calculated. Secondary data sources such as, published reports, research journals, reference books and online databases have been referred for the study.

4.2. Size and Design of Sample

The survey is conducted among 150 students in the age group of 18 to 25 years who are regularly purchasing online. The data was collected from different institutes of Dehradun region.

4.3. Research Question and Hypotheses

The research questions considered for this study are:

1. Does celebrity endorsement on social media have any effect on online buying behavior of Generation Y in India?
2. Does there is a relationship between celebrity endorsement on social media and Generation Y mobile buying behavior?

Based on the above mentioned research questions, the following hypotheses are constructed for the study:

Hypothesis 1:

Ho: There is no impact of celebrity endorsement on Generation Y consumer's mobile buying behavior.

Ha: There is an impact of celebrity endorsement on Generation Y consumer's mobile buying behavior.

Hypothesis 2:

Ho: There is no relationship between celebrity endorsement and Generation Y consumer's mobile buying behavior.

Ha: There is a relationship between celebrity endorsement and Generation Y consumer's mobile buying behavior.

To access the reliability of the sample, Cronbach's Alpha measure has been used. The reliability coefficient is 0.882. To determine the adequacy of the data, Kasier-Meyer-Olkin (KMO) measure is determining the adequacy of sample data and Bartlett test provides support for validity of data for factor analysis. The KMO value between 0.5 and 1.0 indicate that factor analysis is suitable or appropriate. The overall significance of correlation matrices is tested with Bartlett's test of sphericity. KMO is computed as 0.88 that indicates adequacy of sample to evaluate the perception of the students toward celebrity endorsed product. The questionnaire used has been verified with the help of content validity.

V. Analysis and Interpretation

In order to understand the student psyche and measure the perception of the Generation Y consumers towards celebrity endorsed product. An exploratory factor analysis has been used as shown in Table-1 to test the construct validity to evaluate the Generation Y buying behavior on celebrity endorsed products. The result shows that students prefer celebrity endorsed product due to certain factors as discussed below:

Factor 1- Value for money: This factor explains 24.48 percent of the total variance. This factor, includes the variables i.e. quality of product, quality satisfaction, price of the product, endorsed product over priced, equivalent value to price, endorsement amount builds price are loaded heavily on factor 1. It suggests that the purchase intention is induced by the value a customer derives from the product, by equating quality & benefits derived to the cost they are sacrificing for the product.

Factor 2- Brand Attractiveness: This factor explains 16.44 percent of the total variance. This factor includes the variables i.e. preferred product, prefer branded products, celebrity builds brands and brand affect celebrity image are loaded highly on factor 2 ; which explains the importance of a established brand in formulating the perception for the product.

Factor 3- Celebrity's influence: This factor explains 15.26 of the total variance. This factor included the variables i.e. celebrity confirms quality of product, increased visibility, effective communication, enhance value of product, brand value rises with celebrity launch, necessary for effective promotion are highly loaded on factor 3; which determines that celebrities associated influence on the overall brand image in a way which transfers meaning of the product, giving a assurance for the product.

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After running the factor analysis, the next step has been to find out Eigen values for each dimension and factor loadings indicated that it's quite appropriate to examine the relationship between the Generation Y consumer buying behavior and celebrity endorsed products (Table 1). To determine the adequacy of the data, KMO measure of sampling adequacy is used. KMO is 0.880 which explains the data used is sufficient with factor analysis.

Table 1: Factor Analysis
Total Variance Explained

Component	Initial Eigen Values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.957	39.713	39.713	5.957	39.713	39.713	3.672	24.480	24.480
2	1.434	9.563	49.276	1.434	9.563	49.276	2.467	16.446	40.926
3	1.037	6.916	56.192	1.037	6.916	56.192	2.290	15.266	56.192
4	.920	6.133	62.325						
5	.863	5.754	68.080						
6	.734	4.891	72.971						
7	.688	4.586	77.557						
8	.595	3.966	81.523						
9	.566	3.771	85.293						
10	.463	3.090	88.383						
11	.435	2.898	91.281						
12	.400	2.669	93.949						
13	.385	2.568	96.518						
14	.280	1.864	98.381						
15	.243	1.619	100.000						

Extraction Method: Principal Component Analysis.

Conclusion

This research paper investigated the current state of Generation Y consumer's perception about celebrity endorsements. Empirically identified and tested the celebrity attributes specific to influence purchase intention and finally examined the impact of celebrity endorsements on purchase intention of consumers. Results reveal that Generation Y consumer's find celebrity endorsements more attractive as well as more influential as endorsers. Results reveal that using a celebrity in an advertisement increases the recognition and recall rate of the endorsed product. Overall the Generation Y consumers believe that celebrity endorsements are more attractive, and effective at influencing their purchase decision.

As per the analysis the three important aspects associated with celebrity endorsements are celebrity attractiveness, credibility and association between the brand and the celebrity endorser. Therefore, celebrity's role is prominent in personifying the product to his/her image and helps it reach the customers. Likewise this study also states Value for money, Celebrity influence and celebrity name are some of the leading factors which influence the Generation Y buying behaviour.

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TRANSFORMING INDIA - DIGITALIZATION

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Introduction

The Digital India program has been started with the aim of transforming the country into a digitally empowered society and knowledge economy. Digital India will ensure that government services are available electronically to the citizens. It will also bring public responsibility through the compulsory delivery of government services; A unique ID and e-Governance based on authentic and standard-based interoperability and integrated government applications and data base.

Digitization is a process of changing the diverse forms of information, such as text, sound, image or voice into digital format. Digitization has made a proven impact on reducing unemployment on the economy and society, improving the quality of life and increasing access to knowledge and other public services.

Digital India is a startup by the Indian government to ensure that government services can be made electronically to the citizens by improving online infrastructure and increasing Internet connectivity. It was launched by Hon'ble Prime Minister Narendra Modi on July 1, 2015.

This initiative includes a plan to connect rural areas with high speed internet network. Digital India has three main components. Contains:

- Creation of digital infrastructure
- Serving digitally
- Digital literacy

Objectives of the study

- To understand the concept of Digital India.
- To analyze key projects of **Digital India programme**
- To highlight the proposed impact of Digital India

Research Methodology

The research methodology is descriptive in nature.

Data Collection Method

This present study is entirely based on secondary data source which has been collected from government official websites, journals, newspapers and related studies.

Building Digital Infrastructure

Digital Infrastructure is defined by focusing on enabling the user experience running business agility and customer experience and loyalty.

- High speed Internet
- Unique digital identity
- Mobile phone and bank account
- Access to a general service center
- Private place on the cloud
- Secure Cyber Space

Digital Services and Governance on Demand

One of the key goals of DEF's vision and mission statement flowing out of the mission is to ensure that digital interventions strengthen democracy at the grassroots, improve governance, bring efficiency in the delivery of government services and give voice to the people.

- Integrated services
- Availability of services through online and mobile platforms
- Portable citizen entitled on cloud
- ease of doing business
- Financial transactions electronic and cashless
- Geospatial Information System (GIS) as a decision support system

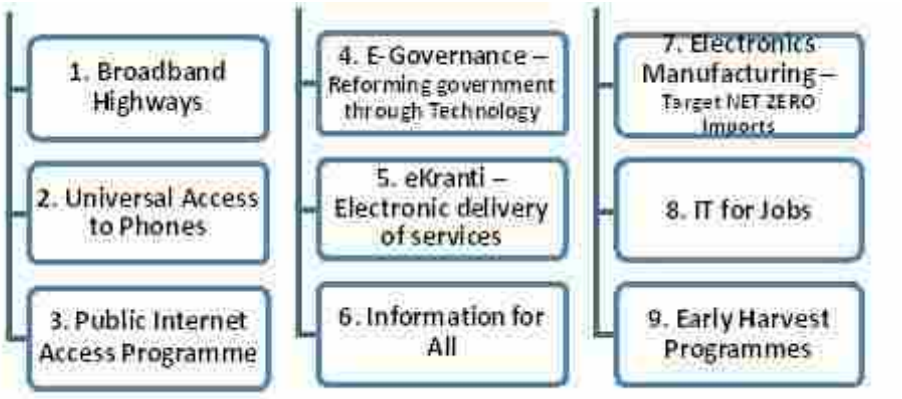
Digital Empowerment of Citizens

Digital Empowerment (DigEm) is a modern way of digital empowerment project that uses a creative method to teach basic ICT skills and provides an effective entry path for learners who are dissatisfied with the learning process, Are unconfirmed.

- Digital literacy
- Universal assess ability digital resources
- Available options of digital resources / services in Indian languages
- Collaborative Digital Platform
- No physical presentation of documents

NINE PILLARS OF DIGITAL INDIA

- 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
- Early Harvest Programmes.



1. Broadband highway: Resting of nationwide optical fiber network (NOFN) in all 2.5 lakh gram panchayats in the nation will occur in a phased way. The NOFN will be finished in FY 2016-17 with a complete approximated price of Rs 20,100 crore. NOFN facilities connection is organized to be be formulated by govt customer system (GUN) as an overlay on NOFN. The approximated price of the venture is Rs 4900 crore as capex and Rs 2,500 crore as opex for a interval of 10 decades.

2. Universal access: Guaranteeing mobile phone access in around 44,000 discovered towns in the nation and government is taking action to ensure that all towns are covered through mobile phone connection by 2018. The government has also made the decision to set up 1,836 mobile towers to connect the unconnected areas in the states suffering from Left Wing Extremism (LWE) at a venture cost of Rs 3,567.58 crore to be met from USOF.

3. Public Internet access: To develop the protection of typical solutions middle (CSC) from 1.35 lakhs to 1.5 lakhs, i.e. one in every panchayat. Even 1.5 lakh post offices to be transformed to be transformed to a multi-service centers in 2 decades.

4. E-Governance: Business procedure re-engineering will be performed to enhance procedures and service distribution. Solutions will be incorporated with UIDAI, transaction access and mobile platform. Even general public complaint redressal will be computerized end to end.

5. E-Kranti: E-Kranti concentrates on electronic delivery of services whether it is education, health, farming, rights and financial addition. In education, the focus is on digital knowledge program and MOOC (massive online open courses) and installing free Wi-Fi in 250,000 educational institutions. In

healthcare, the government is worrying on on the internet assessment, medical records, medicine supply and pan India exchange for individual details, pilots by 2015 and full dental coverage plans in 3 years. Farm owners will get real-time price details, Online cash loan and relief payment with mobile banking.

6. Information for all: The focus will be on online internet website hosting service of data and realistic participation through social media and web based systems like MyGov.

7. Electronics manufacturing: Concentrate is on set to be containers, VSAT, mobile, consumer electronics, technology, medical electronic devices, intelligent energy metres, Smart cards and micro ATMs. For this the government is co-ordinating on many front be it taxes, rewards, financial systems of range and offering cost benefits to local producers.

8. IT for Jobs: The government is planning to teaching one crore learners from small towns and village for IT industry. Plans are also to exercise 300,000 assistance distribution providers in 2 years to run practical companies offering IT services and telecoms companies to train 500,000 rural workers in 5 years.

9. Initial Harvest programs are basically projects that have to be implemented within short time. The projects under the Early Harvest Program are as follows:

- IT platform for messages
- Government greetings to e-greetings
- Biometric Attendance
- Wi-Fi in all Universities
- Standardize government email design
- Public Wi-Fi hotspot
- School books to be e-books
- SMS based weather information, disaster alert
- National portal for lost and found children
- Secure Email within Government

Key Projects of Digital India programme:

1. The objective of the Digital Locker System is to reduce the use of physical documents and to share the e-documents in the agencies. The e-documents will be split through registered repositories, so that the authenticity of documents will be ensured online.

2. MyGov.in has been implemented as a forum for citizen participation in governance through "discussion", "do" and "bad propaganda" approach. Mobile Apps for MyGov will bring users these features to a mobile phone.

3. Swachh Bharat Mission (SBM) mobile app will be used by people and government organizations to achieve the goals of Clean India Mission.

4. The e-assign framework will allow citizens to digitally sign online on a document using base authentication.

5. Online registration system (ORS) has been started under the eHospital application. This application provides important services like online registration, payment of fees and appointment, online clinical reports, online blood inquiry etc.

6. The National Scholarship Portal is the one stop solution for the end of the scholarship process by the right of the student's application, verification, approval and disbursement to eliminate the beneficiary for all scholarships provided by the Government of India.

7. For digitization of large scale records in the country, an initiative called Digitize India Platform (DIP) has been made, which will facilitate efficient delivery of services to the citizens.

9. BSNL introduced its Next Generation Network (NGN) to replace old exchanges, which is to manage all types of services such as voice, data, multimedia / video and other types of packet switched communication services. Is a best example of IP based technology.

10. BSNL has deployed large-scale Wi-Fi hotspots all over the country. Users can hook the BSNL Wi-Fi network through their mobile sets.

11. It is mandatory to have universal contact in order to distribute citizen services electronically and to improve the way citizens and officials interact with one another. The government also feels this need that. Broadband highways' have been included as one of the pillars of Digital India.

Scope of Digital India:

The overall scope of this programme is:

- To get ready India for a knowledge future.
- On organism transformative that is to realize IT (Indian Talent) + IT (Information Technology) = IT (India Tomorrow)
- Building technology central to enabling change.
- On organism an Umbrella Programme – covering many departments.
- The program simultaneously wears a large number of ideas and ideas in broader ideas, so that each of them is seen as part of a larger goal. Each individual element is on its own, but it is also part of the big picture.
- Together weave missions into totality.
- The Digital India Programme will pull together many prevailing schemes which would be restructured and re-focused and implemented in a harmonized manner.

Advantages of digital India are as follow

- Creation of Digital communications and Electronic Manufacturing in Native India.
- Digital Empowerment of Native Indian citizens.
- Delivery of all Government Services electronically (E-Governance).
- A Digital recognition which will verify the end user.
- A Mobile for universal access to all services.
- A Bank account for Instant Benefit Transfers of subsidies and payments.

- The program also aims to eliminate all electronics imports by 2020 and make India a electronics manufacturing super power.
  - It will help in declining crime if applied on whole.
  - It will aid in getting things done easily.
  - It will help in minimizing documentation.
  - Few services which will be provided through this desire effort are Digital Locker, e-education, e-health, e-sign and nationwide scholarship portal.
  - It will apparently create a lot of jobs.
  - It will be an enhance to industry; both large and small enterprises.

Highlights of the progress in Digital India

- More than 12,000 rural post office branches have been digitally added and soon payment banking will become a reality for them.
- Government has planned to connect all the schemes with technology and make 'village digital village' across the country. Digital Village 'will be powered by services such as LED lighting, solar energy, skill development centers and e-education and e-health.
- Due to the Digital India program, electronic transactions related to e-governance projects in the country have almost doubled in 2015. According to the official website Electronic Transaction Aggregation and Analysis Layer (eTaal), there were 3.53 billion transactions in 2014, which almost doubled to 6.95 billion in 2015.
- Progressive policies and aggressive focus on 'Make in India' have played an important role in the revival of the electronics manufacturing sector.

Proposed Impact of Digital India

A. Economic impact:

As per analysts, the Digital India plan could boost GDP up to $1 trillion by 2025. It can play a key role in macro-economic factors such as GDP growth, employment generation, labor productivity, growth in number of businesses and revenue leakages for the Government.

According to the World Bank report, a 10% increase in mobile and broadband penetration increases per capita GDP by 0.81% and 1.38%, respectively. India is the second largest telecommunication market in the world, of which 915 million are wireless customers and the world's third largest Internet market, which has approximately 259 million broadband users.

There is still a huge economic opportunity in India as the tele-density in rural India is only 45% where more than 65% of the population lives. Future growth of telecommunication industry in terms of number of subscribers is expected to come from rural areas as urban areas are saturated with a tele-density of more than 160%.

B. Social impact:

Due to constraints and limitations like intermediaries, illiteracy, ignorance, poverty, lack of funds, information and investment, social sector like education, health care and banking is not reaching citizens. These challenges have led to unbalanced growth in rural and urban areas and there has been a significant difference in the economic and social status of the people in these areas.

Modern ICT makes it easy for people to access services and resources. Entry of mobile devices can be highly useful in the form of a supplementary channel for public service delivery, apart from the creation of new services, which can have a major impact on users' quality of life and lead to social modernization.

The poor literacy rate in India is due to the absence of physical infrastructure in rural and remote areas. This is where m-education services can play an important role by reaching distance education. According to estimates, digital literacy in India is only 6.5% and internet access is 20.83 out of 100.

The Digital India project will help in real-time education and partially overcome the challenge of lack of teachers in the education system through smart and virtual classes. Education to farmers, fishermen can be provided through mobile devices. High speed networks can provide adequate infrastructure for online learning platforms like mass-open online courses (MOOCs).

Mobile and Internet banking can improve financial inclusion in the country and by creating an inter-ecosystem and revenue sharing business model, the value-chain can create a win-win situation for all parties. Telecommunication operators get additional revenue streams, while banks can reach the minimum possible costs to new customer groups.

A growing population, poor physician supports patient ratio (1: 870), high infant mortality rate, rising life expectancy, low-quality doctors and most populations living in remote villages, justify the need for tele-medicine. M-Health can promote innovation and increase access to health services.

Digital platforms can help crop farmers (crop choices, variety of seeds), references (weather, plant protection, best practices) and market information (market prices, market demand, logistics).

C. Environmental impact:

Major changes in technology will not only bring about changes in the economic system but also contribute to environmental changes.

The next generation techniques will help reduce carbon footprint by reducing fuel consumption, waste management, green workplaces and thus lead a green ecosystem. The ICT field helps in efficient management and the use of rare and non-renewable resources.

Cloud computing technology reduces carbon emissions by improving mobility and flexibility. Due to a reduction of 28% in carbon footprint from 2010 levels, consumption of energy in 2010 may decrease from 201.8 terawatt hour (TWh) to 139.8 TWh in 2020.

Conclusion

In addition to providing access to digital-based India education, health and financial services, through the development of non-agricultural economic activities, it can help in improving the social and economic condition of the people. It is important to note, however, that ICT alone can't lead the overall development of the nation. The overall development can be felt through support and enhancing elements like literacy, basic infrastructure, overall business environment, regulatory environment, etc.

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DIGITISATION : IOT FOR SMART HEALTHCARE

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INTRODUCTION

With advancement and development of technology, humankind deserve access to quality healthcare facilities that are equipped with essential tools to provide better, healthier and quality life everywhere and every time. Primary healthcare institutes, of urban as well rural areas, should be well connected to specialised facilities to ensure on-time, un-delayed solutions. While decentralisation of healthcare can be achieved through administrative measures, other aspects need technological solutions, here Information and Communication Technology (ICT) plays an important role. In-hospital and In-house treatment, with the help of ICT tools, Artificial Intelligence (AI), Internet of Things (IOT) etc, assist in better facilitation of healthcare services to vulnerable patient population such as elderly patients, special need child and disabled patient etc[1].

Here we discuss the use of Internet of Things (IOT) for smart health care system. IOT is a smart and effective ICT tool that provides solution to number of challenges of existing health care system. Simple assistance like real time access of the world class medical facilities to a patient who is at a remote location or anytime monitoring and care to a patient at home or in hospital.

INTERNET OF THINGS

The Internet of Things (IOT) is the communication between various electronic devices through the Internet, like communication between home appliances through software, applications, sensors, actuators, etc which allows interaction and exchange of information and data. Such devices can be remotely monitored and controlled. Installation of computerised devices for automatic real time data capturing without any human intervention produces more accurate and instant results[2].

INTERNET OF THINGS IN HEALTH CARE SYSTEM

'Smart Healthcare' is application of IOT for medical and health related purposes which include data collection, analysis for research and monitoring. This 'Smart Healthcare' provides a digitised healthcare system, connecting available medical resources and healthcare services. The IOT, in which devices connect directly to data capturing and to each other, is crucial for following reasons[3]-

i. It allows devices to collect record and analyze in real time and the same can be used to enable preventive care, prompt diagnosis of acute complications and enhance the understanding of best required therapy.

ii. The intelligent ability of devices to gather data on their own removes the limitations of human-entered data, accessing the data and provide to the doctor at the time and in the way they need it. This automation reduces the risk of human error and thus can enhance the efficiency.

iii. It provides personalised healthcare based on the patient's biological, behavioural, mental and cultural characteristics with the aim of suitable care for the right person at the right time leading to more desirable results and improvement.

iv. It also provides cost-effective healthcare to the patient that deal with prevention, early pathology detection and home care instead of the costly clinical care.

v. It also ensures the personalisation of healthcare services by maintaining digital identity for each patient.

In India, IOT system can be effectively used to enable monitoring of health remotely, emergency alert, post-operative care etc. The devices used in IOT system, includes monitoring of blood pressure, heart rate, glucose level, ECG, working of pacemakers, smart beds, mobile devices, smart sensors, wearable devices such as Fitbit electronic wristband, smart hearing aids etc[4].

Smart beds for in-hospital patients can detect the health condition of the patient and alert the doctors, care givers and attendants of the patient. The use of mobile devices to support medical follow-up led to the creation of 'm-health', used "to analyze, capture, transmit and store health statistics from multiple resources, including sensors and other biomedical acquisition systems"[5]. Internet based smart sensors equipped in the home can effectively monitor the health and general condition of old age citizens, duly ensuring that proper treatment is being administered and assisting people regain lost mobility via therapy as well. These smart sensors can easily collect, process, transfer and analyse the data and useful information in real time and send to the hospital based system and to the concerned doctor. Wearable devices can also play an important role in the well being of senior citizens, special need persons, patients suffering with chronic disease etc.

IOT equipped healthcare system maintain the doctors, patients and other stakeholders (like attendants of the patients, care givers, families, etc.) of the patient where patient records are saved in a database, allowing doctors and medical staff to have access to the patient's information. IOT based medical systems are patient oriented and are flexible to the patient's medical conditions. IOT in the insurance industry includes biosensors, wearable devices, connected health devices and mobile apps to track customer behaviour, life style, use of medication etc. This can lead to more accurate underwriting and new pricing models[6].

ADVANTAGES OF IOT IN HEALTHCARE[7]

IOT in hospital settings

Rapid population growth levied heavy burden of illness, old age and other health related issues on hospitals. IOT is helping the way hospitals attend to the patients. Typically, IOT not only help in providing better healthcare but also reduce the cost of medical treatment to a great low.

Reporting and monitoring in real time

Emergency situations like heart failure, hyper diabetes, asthma attack, cardiac arrest etc. are prevented to great extend by enabling doctors to monitor the real-time conditions of a patient. IOT also enables doctors to attend multiple patients in short span of time. The medical record, past history and related details of patient like blood sugar levels, electo cardiogram reports, X-ray reports, etc. are stored in the cloud and can be accessed with a mobile device whenever needed. Wearable devices like

Fitbit connected with IOT can track various parameters of a patient like heart rate, sugar levels, blood pressure etc and then store the information in the mobile device. Such information subsequently can be sent to the doctors/hospitals for record, analysis and prescription. For example *Mswasthya*[8] is a useful app for this purpose.

Improved connectivity, affordability and real time monitoring

IOT in smart healthcare applications allows better connection among the devices and use of the latest medical and non-medical technology. It enables fast and immediate data and information exchange. Use of advanced technologies like smart sensors, wearable devices, bluetooth, Wi-Fi, Li-fi etc. enables accurate diagnosis of disease and continuous tracking of vital parameters. Overall time lapse and cost of treatment will also be significantly reduced and the patient can get the treatment within initial crucial hour. Even, the patient based in remote location can get the treatment in real time. Super speciality hospital and specialized doctors can get alert and provide assistance to the needy at his location itself. Even medical staff of road/air ambulance can get alert and on the basis of feedback of the doctor/hospital, lift the patient and admit in the hospital for surgery or specialized treatment.

All the rooms either in emergency, ICU or in general ward can be tracked by the help of IOT and provide immediate assistance when the patient need. With the help of IOT hospitals can track all the medical machines and inform the hospital administration whenever any device is out of order/expire and needs replacement or repairing. This technology can also track and monitor the hospital staff and patients. With the help of mobile devices and speech sensors, patients can easily contact the doctors and care givers of the hospitals for immediate assistance. Latest IOT devices enable the doctors to identify any ailments on the go and save travelling cost and time. If a patient is connected to smart beds and machines then with the help of a tap on the device or by voice command, doctor can instruct the machines to dispense the drug to the patient.

Analysis of data and survey

Humanly analyzing of huge data is impossible but smart devices can do it in an easy manner. Smart healthcare connected with IOT, can track & store huge data related to the medical history of a patients at the cloud and can send the data to other connected devices and then analyse the data without any human error.

Management of Medicines and Drugs

IOT devices can effectively and efficiently monitor the dosages of the medicines taken by a patient and its effectiveness on the patient. For example, whether a patient is taking insulin dose (IOT enabled insulin pen) in time or not can be tracked by IOT and also monitor the sugar level of the patient. Patients can also be reminded if they fail or forget to take pills at the prescribed time and in the right proportion.

Some Case Studies[9]

i. Credihealth - It is a medical support startup that gives guidance to the patient, from the first consultation to each stage of the treatment process. It also helps patients to find the right

doctor, book appointments, request cost estimates for procedures, and helps to manage the admissions and discharge process

ii. Pathshodh - Pathshodh originated from IISC Bangalore. It has developed a novel miniaturized bio sensor device that monitors diabetes and kidneys. This app helps in early detection of chronic kidney diseases.

iii. Viome Biosciences- It is one of the few companies in the bio sciences space that has raised rounds of venture capital funding. Vyome Biosciences is an innovation-driven, clinical stage speciality pharmaceutical company, which has novel platform technologies and a robust pipeline of novel drugs for antibiotic-resistant acne and other opportunistic skin pathogens.

iv. A3 RMT – A3 Remote Monitoring Technologies Pvt. Ltd. (A3 RMT) is a startup that has assisted in effective treatment of more than 56,000 patients in 450 locations in India and saved more than 2,000 lives through emergency intervention. It is an IIT Bombay State-of-Art technology company which has been formed by recognizing a confluence of two powerful global trends:

- Demographic trend - A global rise in population of patients with critical, chronic and emergency conditions.
- Pharmaco-Economic trend – A huge increase in healthcare costs.

In response to this scenario, A3 ("Anywhere Anytime Access") with its current operations in India (where the company is head quartered) has created a global opportunity to radically alter the delivery of critical life saving health care monitoring during emergency and preventive diagnostic capabilities at much lower price-performance points by innovative synthesis of digital signal processing, image processing, biomedical components, algorithms, wireless and communication technologies. The first sets of solutions are in the realm of wireless remote patient monitoring. A3RMT is manufacturing light-weight equipment for measuring ECG, blood pressure, heart rate, auscultation, oxygen saturation and the temperature of a patient.

It then transmits data wirelessly to doctors anywhere in the world. These machines perform quick diagnostics with little medical training and rely heavily on their patented technology to work in low-bandwidth locations in far flung corners of the country.

v. Neurosynaptic Communications- Neurosynaptic Communications an ISO13485 and ISO9001 Company offers high quality ReMeDi Remote Healthcare Delivery Solutions. The indigenous technology, developed jointly with the Indian Institute of Technology, Madras, facilitates remote diagnosis of the patient by capturing various basic physiological parameters, thereby providing an extremely affordable method for remote healthcare delivery. The technology has been clinically validated at reputed medical institutions for accuracy and quality of medical data.

CHALLENGES AND PROBABLE SOLUTIONS

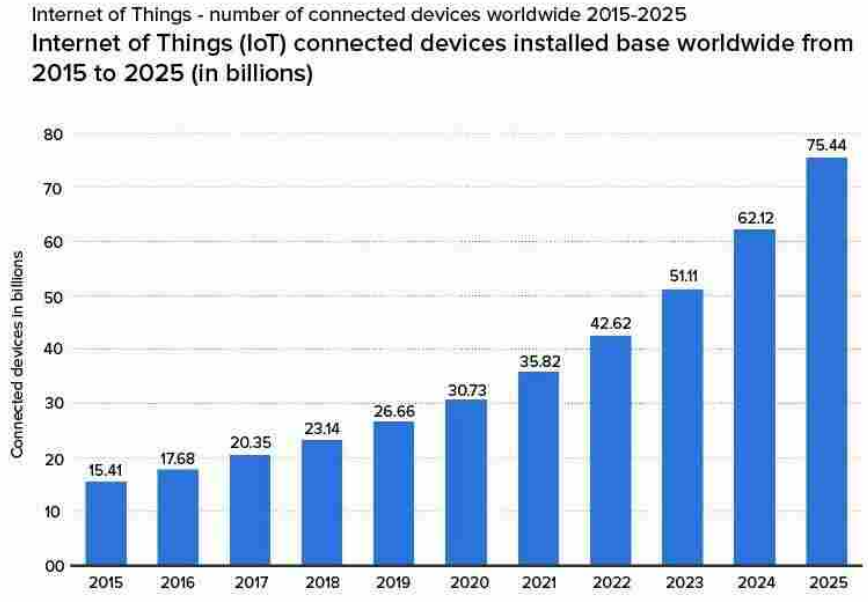
Privacy and security

Use of IOT in healthcare has certain limitations and challenges. It is required to minimize limitations for effective use of IOT. The major concern is to keep privacy of the data and information related to the patients and to maintain security of IOT healthcare solutions. The Big data generated, transferred and stored can be hacked and misused against the patient, doctor and the hospital. Medico-legal issues

will also increase in the event of breach of privacy and security and the same need a regulator to tackle such issues. Proper policy intervention and government measures are essential.

Effective management of massive data with accuracy

As estimati … by 2025. Thus very heavy data wil … ected for preventive and post ailme … oled wi-fi and more devices will b… …e of treatment and medication.



Source : https://www.statista.com/statistics/471264/IOT-number-of-connected-devices-worldwide/

Integration among the devices

Integration of the medical equipments, mobile devices and ICT tools will be a challenge. Further differentiation among the generation of devices and their connectivity with IOT will also be a challenge for all the stakeholders.

Budget for the technology and devices

For establishment of proper infrastructure large budget is required. In this field Govt, under public-private partnership (PPP) model can establish infrastructure.

CONCLUSION

Despite challenges in usage of IOT in healthcare, it is important tool to improve healthcare facilities in the country. Not only IOT can help and boom the health care sector tremendously it may also help to reduce the burden arisen due to increasing population around the globe. Globally, each patient and each doctor may be connected and the network may benefit entire world.

Future of the healthcare industry necessitates the use of ICT and IOT tools and technology as it will provide treatment to the patients in less time and at low cost. This smart healthcare system enables

remote diagnosis of the patient, accurate data recording and analysis, effective preventive and post ailment treatment, real time monitoring with the help of bio sensor devices, tracking of dosages of the medicines, and better hospital management. Reduction in treatment cost makes affordable health care facilities available to deprived population as well. Health index of particular population may be evaluated and customised healthcare solutions may be provided for better outcomes.

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ROLE OF DIGITALIZATION AND PAYMENT MODE IN INDIAN ECONOMY

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Digitalization is use of digital technology to change a business model. It is a process in which business is done through internet. When business is done via internet then it is need to pay or receive the payment. We are doing not only business but all payments are done in electronic mode. First of all we have to understand digital payment then we can understand digital payment mode. Digital payment is a way of payment which is made in electronic form. In digital payment both payer and payee used digital mode to send or receive the money anywhere in the world. It is also known as electronic payment because no hard cash is involved. All the transactions are done online. This is the way in which payments are done online. In this payments are made instantly and conveniently. In digital payment, the money transfers from one account to another account immediately. It is a process in which both parties will not go to bank, but with the help of mobile or computer they make payments. Since it is done electronically hence no need to withdraw cash from bank. It also lots of time and a little bit money as well.

Introduction:

The Government of India has been taking several measures to promote and encourage digital payment in the country. As part of the digital India campaigns, the government aims to make economy cashless, faceless and paperless. For this it is necessary to start payment in electronic form. There are various types and modes of digital payment. It means government is encouraging to boost payment modes in digital form. The digital payment occurs when goods or services are purchased through the use of electronic mode. In this system neither cash nor cheque are used. In this system physical use of money for purchases of goods and services is done by various electronic modes.

Modes of Digital Payment:

A large number of digital payments methods are available in India.

1. UPI: UPI means Unified Payment Interface. It is type of interoperable payment system through which any customer holdiong any bank account can send and receive money. In this user can link more than one bank account on UPI app. In this Smartphone is required and user can do work seamlessly initiate fund transfers and receive funds on a 24/7 basis and 365 days in a year. In this user can transfer funds without IFSC code. If someone is willing to use this one then he should have a valid bank account with registered mobile number with that bank account. There are no transaction charges for using this.
2. BHIM App: BHIP full form is Bharat Interface for Money. This allows user to make payment using UPI application in mobile. It needs a Virtual Payment Address. This also works with UPI. One can link his/ her bank account with this App. User can link more than one bank accounts. This

can be used by anyone who has a valid mobile number, valid bank account and debit card. Money can be transferred between bank accounts. There is need to link Aadhaar Number also.

3. Mobile Wallet: It is also known as E-Wallet in which digital version of physical wallet functions. We can keep money in an E-Wallet and use it when needed. It is used generally to recharge mobile phone, Pay bills, to make payment at various shops and merchant premises and to even our friends. But for this Smartphone and a stable internet connection is required. These mobile wallets give cash back offers. Some of them allowed the user to transfer funds from bank to wallet and vice versa e.g. Pay tm.

   The main feature of such wallet is they never ask any PIN when you perform the transaction. Hence it is necessary to lock the phone otherwise someone can use your wallet. Actually it is virtual wallet in which user has to download the specific app. It contains various important information about pan card, aadhaar number, debit or credit card number. In India there are so many private players like Paytm, Mobikwik, Freecharge etc. All of them are providing various services to users such as sending and receiving money, making payments to merchants, to fill other services and online buying. Some of them are charging fee for the services given by them.
4. Bank Cards: Banks generally issued debit and credit cards to their customers. These cards are useful not only to withdraw cash but also help to transfer funds and to pay at merchant establishments. These are most widely used payment methods and come with various types of features and benefits. These are secure and convenient to the customer. It is a easy way of digital payment. In India well known card payment systems are Visa, Master Card, Maestro, Rupay etc. These cards are used for digital payment on online purchases. These cards are used at Pos machines.
5. Internet Banking: It is a method of banking in which transactions are conducted electronically via the Internet. It is also known as online banking in which an electronic payment system that enables customers of a bank to conduct financial transaction. In this by phone or computer we can do banking transactions such as transferring money, paying a bill, checking your account or setting up a regular payment etc. In other words we can also open a new fixed or recurring deposit, closing an account etc. Customer has to log into his account by using username and password. It can also be accessed 24/7 and 365 days in year.
6. Mobile Banking: It referred to the process of carrying out financial transactions through Smart Phone. Many banks are having own app and with mobile banking a large number of apps are introduced. It is a wide term used for the payments using the UPI application.
7. Point of Sale Terminals: It refers to those that are installed at various stores where a customer is going to purchase goods and services and using debit or credit cards with the help of device installed at shop. Various mobile plate forms and internet browsers are helping. These can be physical pos, or mobile pos or virtual pos. Physical pos are ones that are kept at shops and stores. On the other hand, mobile pos terminales work through a tablet or Smartphone.
8. AEPS : It means Aadhaar Enabled Payment System. It can be used for all banking transactions such as balance enquiry, cash withdrawal, cash deposit, payment transactions, Aadhaar to Aadhaar fund transfers, etc. Banks have established Customer Service Centre where all transactions are carried out through a banking correspondent based on Aadhaar verification. In this system customer

will not visit branch but with the help of aadhaar number and figure impression he can do banking activities. This initiative was taken by NPCI to promote digital payment system in India. Unlike debit cards and USSD this does not have any charges on transactions. At Point of Sale customer can withdraw or deposit cash, send money to another aadhar linked account. It does not need your signature or password. Only fingerprint is required. It is safest mode of payment.

9. USSD: It is mobile banking based digital payment mode. It is also known as *99# banking. In this no need to have smartphone or internet connection to use this service. It can be used only with feature phone. For financial and non financial transactions it can be used such as checking balance, sending money, changing MPIN and MMID. It works as a bridge between telecom operator's server and bank server. It uses registered mobile number which is connected to bank account. In this charges are levied per transaction.
10. Bank and Other Prepaid Card: Banks and other financial institutions have issued prepaid cards to persons who are willing to buy it and he can top up. A prepaid card is a type of payment instrument on to which you load money to make purchases. This type of card may not be linked to any bank account of the customer excluding debit card. Indian prepaid card market is touted to grow at a CAGR of around 40% during 2012-2017, according to RNCOS Research titled 'Indian prepaid card market outlook to 2017' The same study also identified that the market is mainly driven by corporate customers looking for an easy and streamlined way of processing funds. Examples are Travel Card, Payroll Card, Meal Card, Gift Card.

Benefits of Digital Payment Mode:

1. Easy and Convenient way: Digital payments are very easy and convenient to customers. There is no need to carry cash with you for shopping or for payment. For this only smart mobile phone or feature phone or aadhaar number or card or e wallet is required.
2. To Pay or send money from anywhere: in digital mode one can send money from one place to another within second. There no need to worry about cash. There is no need to fill lengthy information and no need to stay in line to withdraw or deposit the money.
3. Economical and less transaction fee: There are many payment apps and mobile wallets that do not charge any kind of service fee for the service provided. The UPI interface is one such example, where services can be utilized by the customer free of cost.
4. Discount and Cash Back: There are many rewards, discount and cash back offered to customers who are using digital payment apps and e wallet. This will attract the customers. Government also announced that discount on fuels filling and insurance premium paid to LIC.
5. Written Record: Sometime we forget about any expense but it has proper record and we can get it printed. This helps to maintain your record, track your expenses and budget. Customer can track even small transaction conducted on digital platform.
6. Less Risk: It is less risky if you will use wisely. Due to PIN and fingerprint it is not used if phone is lost. Money is safe.

Future of Digital Payment :

As per Meity data,in 2015-2016 a total of Rs.4018 billion transacted through mobile banking as compared to Rs.60 billion in 2012-2013. The percentage of the digital payment through other modes is

also increasing in significant speed. The volume of overall payments steadily increased over the period 2011-12 to 2015-16, recording a compound average annual growth rate (CAGR) of over 58.9 per cent. The rate of growth in volume of overall payments further accelerated to 104.4% per cent in 2017-18. The growth in 2017-18 is spectacular and could be attributed to development of innovative digital payments platform such as BHIM-UPI, BHIM Aadhaar and Bharat QR Code. It is noteworthy that the growth in 2017-18 is much higher than the trend growth rate over the last five year 2011-2016 as per Meity data.

As per RBI, The volume of overall payments steadily increased over the period 2011-12 to 2015-16, recording a compound average annual growth rate (CAGR) of over 28.4 per cent (Annexure 1/Graph A). The volume of overall payments accelerated by over 56 per cent in 2016-17. However, rate of growth in volume was of the order of 44.6 per cent in 2017-18. There is a clear surge in 2016-17 (Growth rate of 56%) and subsequent moderation in the growth (Growth rate of 44.6%) in 2017-18. Notwithstanding this it is noteworthy that the growth in 2017-18 is much higher than the trend growth rate over the last five years (2011-2016). The year-on-year (y-o-y) growth of digital payments in 2017-18 was of the order of 44.6% which was nearly double the CAGR growth in volume for the period 2011-2016. Transactions relating to IMPS, PPI and Debit card had exhibited growth rates in triple digits in the year 2016-17. This growth trend however has slowed down in 2017-18 and all these instruments exhibited double digit growth. UPI however has grown multi-fold in the year 2017-18 and touched 915.2 mn transaction in 2017-18. This instrument had minimal presence in year 2016-17. The volume of paper clearing had been persistently showing negative growth throughout the year 2017-18 compared to the positive growth in 2016-17. NEFT volumes had showed an impressive increase in 2016-17. It continued to grow in 2017-18 albeit a slower pace. The total value of payments in 2016-17 Rs. 2258780.5 (Bn). This increased to Rs. 2527539.2 (Bn) by registering a growth of 11.9% in 2017-18. This growth in 2017-18 was less than half of the growth rate achieved in 2016-17 which was 31.1%. The trend growth of value for the years 2011-16 was however 12.7%

Conclusion:

In last we can say the opportunities of digitalization payment, transfer and remittances contributes to the G20 goals of broad based economic growth, financial inclusion. The Digital Payments ecosystem in India are undergoing a transformation with the entry of global tech giants that are acting as aggregators for retail transactions. Within just four months of launch, Google's payments app is now already processing a large number of digital transactions. With Paytm—which has 7 million merchants (>2x the banking system)—now becoming a bank and post the launch of Google Tez and PhonePe, which are also focusing on merchant payments, a steep rise in digital payments could be expected. Measurement of Digital Payments is extremely important to monitor progress. At last I would like to say that demonetization has influenced to adopt digital payment, as an alternative to cash for Indian consumers. Cashless economy will help in curbing black money, counterfeit's fake currency, fighting against terrorism, reduce cash related robbery. It also helps in improving economic growth of our country. India is now facing major challenges that can hinder the implementation of the policy are cyber fraud, high illiteracy rate, attitude of people, lack of transparency & efficiency in digital payment system. It helps in growth and development of economy in India.

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DIGITAL INDIA :-EFFECTS ON INDIAN ECONOMY

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From the recent past, India is one of the fastest growing Economies in the world. The Indian economy is the seventh largest economy in the world measured by GDP and third largest by Purchasing power Parity (PPP) after US & China, There have been vast changes in Indian economy in last few years that has opened its doors for the world for global trading by allowing LPG in 1991 under the leadership of then finance Minister Dr. Manmohan Singh.

In Present time, the strategy for growth of Indian economy is driven by digitalization and by the raising technology adoption. Technology will allow business to transact easily, frequently, efficiently and smoothly and this all together results the faster growth of economy. In our country the "Digital India" programmed was initiated by our honorable Prime Minister Shri Narendra Modi on 1st July 2015. As for as the digitalization in Indian Economy is concerned it includes nine pillars of Indian economy like E-Governance, E-Kranti, Early Harvest Programme, It for jobs , Electronics Manufacturing ,National Rural Internet Mission, Universal Access to Mobile Connectivity, Broadband highways and information for all. Digitalization in India is the need of hour and a campaign launched by our government to ensure the different services are made available to citizens safely and frequently through electronically by improved online infrastructure and by increasing internet connectivity, the basic objective of digital India movement is the spread of digital literacy in all spheres of the country. It is real demand of hour to compete and meet the global challenges of international market.

Digitalization is a must today because the state of the art in business technology is moving from the pioneering efforts of e-business to a more complex theme of services digitalization. Digitalization does not center on technology, but rather on capturing value through improved productivity and performance. Digitalization is the need of the hour which will transcend companies to the future. At the centre of digitalization process is the use of technology to digitize complex services. Firms are systematically creating new services by rewiring and integrating existing business processes. Digital India consists of three core components—-The development of secure and stable digital infrastructure, Delivering Government services digitally & Digital Empowerment of Citizens.

The digital revolution has now touched many areas and fields of relevance to the common man .The best and vast example is mobile revolution, with almost each and every India, a top executive, top bureaucrat, top industrialist or a daily wage labourer, a rickshaw puller, a student or a housewife, all are owning at least a mobile phone. Almost each and every service is now available through digital platform where earlier one had to go physically or stand in long queues. Railway booking, gas booking, bus banking, passport-visa services, online booking services all have been digitalized. Aadhar was the first major initiative of the government to streamline all services through direct benefit transfer and the JAM trinity. Digital payments are now possible through government apps like BHIM and Rupay debit

cards, NPCL, UPI, IMPS, *99# service, BBPS etc. on the other hand the private financial apps like Paytm, Paybuzz, Google Pay, Paypal, Debit Card, Credit card etc. are also working very effectively and efficiently, Different type of wallet, book-my show, Make my trip, Amazon etc. are the live examples of growing digital economy in India.

The impact of Digital India on Indian economic growth is supposed to be long-lasting. Digitalization has played a vital role in flourishing the Indian Economy. The biggest example is the job opportunities created in last few years for our youth. In addition to the above, "Make in India" concept of Government of India drive has given an immense push to our youth to start new start and think and creation of innovative and creative ideas to contribute to digitalization of india. According to an estimate,the Digital India programme could boost GDP upto $ Trillion by 2025. It can play a very important role in macro-economic factors such as GDP growth, employment generation, labour productivity, growth in number of business and revenue leakages for the Government.

The biggest drawback of our Indian economy is corruption like other developing countries. It is said that a parallel economy flourishes side by side to our main economy. This economy is run by those who avoid paying tax to the government. One of the prominent reasons for the parallel economy is the dependency on cash based business. With digitalization process this process will be harassed vastly. The spread of digitalization initiative like transactions, taxation being bought online and steps like Demonetization, the government is trying to weed out corruption form our system to lead to a positive import on Indian Economy.

The digitalization brings innovation, new job opportunities (especially to youths), ease of working, effective and fast work culture and growth of our economy. It helps to bring transparency in the system and more Transparent are the flow of funds in the economy less is the problem of tax evasion & parallel economy etc. But with all those benefits available it also makes it necessary for the people to have basic financial literacy and knowledge. With the help of which they can protect their money in situations like inflation, depression and know about different financial products and services to save it for their better future.

The span of the Indian Digitalization Programme is quite wide. It is trying to touch almost all the constituents of the India society to make Indian society digitally empowered. In the advanced stage of Digitalization, every user will be able to gather enriched information related to its field through high speed internet facilities and wide connectivity of mobile services. Use of various Govt. services online will curtail the time and cost of the user. The solution of the every problem will be available online and easily accessed online through internet. Researches & Innovation and use of ICT tools will be one of the primary constituents of the Indian Economy. All these factors of Advanced Digitalization lead to a sophisticated knowledge economy where every user has full knowledge regarding its field through internet, online and simplified availability of services and solution to queries and problems, use of latest digitalized processes and techniques of production, sufficient opportunities of online learning & training etc.

The time has come for Indian companies to pursue digitalization whereby digitized resources, such as cloud-based software and machines equipped with digital sensors, are transformed into new sources of profitable revenue. In the nearby time, various components of the digital ecosystem in India

including the digitized consumer, generation of digital data volumes, e-commerce and tech-savvy talent pools are expected to mature.

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IMPACT OF BRAIN DRAIN IN INDIAN ECONOMY

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Introduction

Brain drain is good for developed countries, but bad for developing countries like India**.** It has become a major concern of the developing countries, especially, India .If we analyze the trends of the brain drain in India, then we find that there are several reasons for the country failing to keep its talented youth back. Due to the brain drain in developed countries, India has higher education scenario, unemployment, tax system, political system, better opportunities abroad, good salary packages, equal opportunities. Over the years, India has become a major supplier of skilled and talented young people to the Western countries, especially the European Union. In the beginning of the century, major destinations for the Indians in the EU were limited to Britain, Germany, Italy, Austria and Spain. But now, more and more Indians are going to countries like Poland, France, Ireland and Sweden.

A good number of these immigrants arrive as hostile students to the host countries. Due to the brain drain, our economy is weak, which is not growing in its entire swing and we are not becoming world leader in various sectors such as economy, technology research and development and industries. Now there is a high time reason and solution to think about it.

Objective of Research Paper

This paper is able to analyse the problem of Brain drain in India, and also focus on its causes and their impact on Indian economy.

Hypothesis

Null Hypothesis: There is no impact of Brain drain in Indian economy. Ho

Alternative Hypothesis: There is no impact of Brain drain in Indian economy.H1

Research Methodology

The present research is an attempt to study the Brain drain Problem of India during post liberalization period. The study examines policy perspective relating to brain drain in India, This portion deals with sampling design, data collection, data analysis, the statistical tools applied in the analysis of data and limitations of the study.

Sample and Sample Design

Typically, the population is very large, making a census or a complete enumeration of all the values in the population either impractical or impossible. The sample usually represents a subset of manageable size. Samples are collected and statistics are calculated from the samples, so that one can make inferences or extrapolations from the sample to the population. The data sample may be drawn from a population without replacement in which case it is a multi-subset.

Data Collection

Data collection is the process of gathering and measuring information on targeted variables in an established systematic fashion, which then enables one to answer relevant questions and evaluate outcomes. Data collection is a component of research in all fields of study including physical and social sciences, humanities, and business. While methods vary by discipline, the emphasis on ensuring accurate and honest collection remains the same. The goal for all data collection is to capture quality evidence that allows analysis to lead to the formulation of convincing and credible answers to the questions that have been posed..In this research paper I have used secondary data for knowing the basics of brain drain and its contribution in Indian Economy.

Types of Data: There are two types of data in research which are as follows:

Primary Data

Primary data is information that you collect specifically for the purpose of your research project. An advantage of primary data is that it is specifically tailored to your research needs. A disadvantage is that it is expensive to obtain. The source of your primary data is the population sample from which you collect the data. The first step in the process is determining your target population. For example, if you are researching the marketability of a new washing machine, your target population may be newlyweds that have just purchased a home within the last 90 days.

Secondary Data

Secondary data refers to data that was collected by someone other than the user.Common sources of secondary data for social science include censuses, information collected by government departments, organizational records and data that was originally collected for other research purposes.

Data Analysis

Data analysis, also known as analysis of data or data analytics, is a process of inspecting, cleansing, transforming, and modeling data with the goal of discovering useful information, suggesting conclusions, and supporting decision-making. Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names, in different business, science, and social science domains.

Impact of Brain Drain in Indian Economy

The term, which emerged in1960s when the skilled workforce started emigrating from the poor countries to the rich countries in search of better job opportunities and living conditions, has become a hot topic of discussion over the years. When the expatriates are going abroad in search of greener pastures, India has been losing its major skilled workforce that includes doctors, engineers, scientists and technicians. If we analyze the brain drain trends in India, we could find that there are many reasons why the country fails to hold back its talented youth. The reasons of brain drain in developed countries are Higher Education Scenario in India

In recent years, the cut-offs for admissions became close to 100% in the best Indian universities. While the institutes are in the race of getting the best students in the country, the ambitious youth who fail to meet the “irrational” demands had to compromise on their dream of occupying a seat in any of the prestigious Indian universities. This leads them to explore the scope of higher education abroad.

Most of the students who try their luck in higher studies abroad get into good universities as they have an edge over the students from other countries in terms of skills and knowledge.

While this is the case of young students, the academically well qualified people prefer going abroad for higher research because they don't get the best chances, resources and facilities for research in India.

A recent study conducted by Indian Institute of Management- Bangalore (IIM-B) shows that the students going for higher studies abroad has increased by 256% in the last 10 years. When 53,000 Indian students went abroad for higher studies in 2000, the figure shot up to 1.9 lakh in 2010.The US is the most sought after destination for students, followed by the United Kingdom. There are many Indian students exploring study opportunities in countries like Australia, Germany and France as well.

Causes of brain drain from India

The phenomenon of brain drain from India is nothing new. It can be traced to the British colonial era.

Erstwhile British rulers of the Indian sub-continent took by persuasion or force, indigo and sugarcane planters to lands as distant as Guyana in South America to Fiji in Pacific, Mauritius and elsewhere.

Indian craftsmen were relocated in England and other British colonies where their skills could be used in various industries.

In recent times, brain drain from India has several factors:

- Very high salaries paid in foreign countries.
- Lack of adequate employment opportunities in India.
- Non availability of avenues to utilize education and skills.
- Hope of a better and comfortable lifestyle abroad.
- Prestige involved in working in foreign countries.
- To acquire financial well-being and capability to buy assets in India.
- Belief that working abroad improves marriage prospects in India.
- Prospects of continually learning newer technologies and upgrading skills.

The Goa example

The tiny Indian state, Goa, with an estimated population of 1.5 million, accounts for some of the highest brain drain from India.In 2016, an average of 11 residents of Goa per day, gave up their Indian nationality to become citizens of Portugal. Residents of Daman and Diu also traded their Indian citizenship in favor of Portugal.

Goa, Daman and Diu were colonies of Portugal till December 19, 1961, till they were overrun by the Indian Armed Forces. These territories became part of the Indian republic.

However, the Portuguese government, as a special gesture, allows residents of these former colonies to acquire nationality of Portugal, provided they meet certain criterion.

Highly skilled people from Goa opt for citizenship of Portugal since the country is a member state of the European Union. A Portuguese passport allows them visa free entry into the UK and other EU countries.Though the UK formally exited from EU, the demand for Portuguese passports by eligible residents of Goa remains high.

Brain drain destinations

Some of the topmost destinations where Indian brains migrate are

1. USA
2. Saudi Arabia
3. United Arab Emirates
4. European Union
5. Canada
6. Australia
7. New Zealand
8. Kuwait
9. South Africa
10. Qatar
11. Thailand
12. Singapore
13. Malaysia
14. Israel
15. Oman

Brain drain patterns from India

USA

As can be seen, the US remains topmost destination for Indians. Thousands of Indian citizens travel to the US for higher studies. However, upon completion, they prefer to stay and work in the US. Engineers and experts in all fields work in the US. However, in recent years, Information Technology and software experts from India form bulk of migrants to the US.

Arabian Gulf

India's brain drain to member states of the Gulf Cooperation Council (GCC) is usually in the form of highly qualified engineers in petroleum, petrochemical and natural gas sectors.Other sectors include telecom and banking.

Skilled nurses and physicians from India are also in great demand in the six GCC states that include the Kingdom of Bahrain, State of Kuwait, Sultanate of Oman, Kingdom of Saudi Arabia, State of Qatar and United Arab Emirates.

Generally, highly qualified professionals from India working in GCC states apply for immigrant visas to Canada, Australia and New Zealand, after gaining experience in their chosen fields.

Technologies used in these oil rich countries are comparable with those in the US and Europe. Hence, thousands of Indian migrants utilize their stay in Arabian Gulf states to acquire skills required for migrating.

Australia and New Zealand

Over the last decade, Australia and New Zealand have become one of the favorite destinations for Indians to pursue higher studies. Furthermore, Australia and New Zealand also have fairly liberal

immigration policies.Consequently, thousands of Indian students settle and work in Australia after completing their studies. Additionally, Australia as well as New Zealand welcomes skilled migrants from various parts of the world.

Therefore, hundreds of Indians migrate to Australia and New Zealand annually and acquire citizenship of these countries.

Canada

Canada is yet another country favored by Indian immigrants. The country also welcomes highly skilled Indian citizens. With fairly liberal immigration policies, Canada attracts thousands of Indian migrants, adding to India's brain drain.

European Union

Europe is currently facing population imbalance. Meaning, most citizens of various European Union states are above the age of 35 years. These countries have a large population of people aged above 50 years. There is a shortage of younger people required for specific jobs. Consequently, Indian nurses, physicians, care givers as well as IT and software experts are welcomed by various EU member states.

However visa policies of various European states continue to remain stringent. Therefore, Indian brain drain to EU is somewhat limited.

The bright sides

Brain drain from India however has a few bright sides too.

According to a recent report released by the World Bank, India is expected to receive whopping US$65 billion in remittances from the Indian Diaspora abroad by December 2017. This makes India the largest receiver for foreign remittances and adds to the country's foreign exchange reserves.

Secondly, several Indians living abroad are opening businesses here in India.

The Indian government is offering incentives for Non Resident Indians and Overseas Citizens of India to open businesses in various sectors in the country. The government promises easier and faster licensing to such entrepreneurs.

The current scenario

USA

If you are planning to study in the US or migrate there for work, here is a word of caution. Following his victory, President Donald Trump of the US is moving towards tightening the H1B visa for all nationalities. Indians are the largest beneficiaries of the H1B visa, which allows working in the US and eventual naturalization as an American citizen. Stringent rules proposed by President Trump means, fewer Indians will be able to migrate to the US.

Arabian Gulf

All six GCC states are now empowering their citizens for higher studies in the US and UK. Consequently, all top and mid-level positions in the government and private sectors of these countries are by law reserved for highly qualified citizens of these countries. GCC states are also imposing curbs on import of manpower- skilled, semi-skilled and unskilled- from India.

Australia and New Zealand

In recent years, Australia and New Zealand have raised the bar for skilled Indian migrants. Meaning, unless you hold exceptional skills and qualifications, you will not be issued a migrant visa.

European Union

As explained earlier, work visa and residence rules for member states of the European Union continue to remain strict. Some countries issue work visa for limited, one or two year duration only. They also adopt very strict procedures for granting migrant status or citizenship.

Brain Drain – Reason 1 Education Country-wise data on the number of students going abroad for higher studies

Country	Students going abroad (per year)
China	421,000
India	153,300
Republic of Korea	105,300
Germany	77,500
Japan	54,500

Source: UNESCO's Report- Global Education Digest, 2009

A report by Associated Chamber of Commerce and Industry of India (ASSOCHAM) pointed out that when a large number of students flocking to foreign universities, it costs India a whopping Rs. 95,000 crores per year. The report further noted that there is a huge difference in the fees paid by students studying in the premier institutes in India as compared to students who study aboard. While an Indian Institute of Technology (IIT) student has to pay an average fee of $150 per month, the fee paid by an Indian student studying abroad per month is anywhere between $1,500 and $4,000. Still, it is a matter of concern that despite the highly subsidized rate of higher education, especially in engineering and management, India fails miserably in attracting the best brains.

Brain Drain: Reason 2 Better opportunities abroad

Most of the students prefer staying back in the host country due to better work opportunities and fat pay packages. After getting good global exposure and getting introduced to the high quality life and facilities, the students become reluctant to return to the home country.

These days, most of the developed countries act like organizations. When they fail to find good, talented and skilled workers in their country, they attract the highly skilled and qualified people from other countries. It's very obvious that the skilled Indians prefer US Green Cards and EU Blue Cards

over the not-so-attractive pay checks and average living conditions of a developing country like India. Here, India is the loser and developed countries like the US and UK are gainers.

Country	No. of Individuals
United States	3443063
Saudi Arabia	3000000
United Arab Emirates	2200000
Malaysia	2150000
Nepal	2000000
United Kingdom	1451862
South Africa	1286930

Table : Number of Indian Individual residing in some of the foreign countries.

Brain Drain: Reason 3 Time for a reality check?

Over the years, India has become a major supplier of skilled and talented young people to the Western countries, particularly European Union. The major destinations for Indians in the EU in the beginning of the century were limited to the UK, Germany, Italy, Austria and Spain. But now, more and more Indians are immigrating to countries like Poland, France, Ireland and Sweden. A good number of these immigrants reach the host countries as students.

Comparison between first residence permits issued to Indians and total number of issues in EU in 2009 and 2010

Category	Indians		Total EU	
	2009	2010	2009	2010
Highly Skilled Workers	11,784	12,852	39,027	40,786
Researchers	658	724	6,228	7,172
Seasonal Workers	4,163	3,783	56,518	114,311
Other Economic Reasons	47,844	56,488	546,749	645,493
Total Permits	**64,449**	**73,847**	**648,522**	**807,762**

Source: Population Database – Eurostat

While 5,615 permits issued by the UK for Indians were for highly skilled workers, Italy issued 3,479 permits for Indian seasonal workers. These highly skilled migrants and seasonal workers become permanent residents of the host countries as the long term socio-economic benefits lure them.

Brain Drain: Reason 4

Wake up call for India

The increasing trend of brain drain of the skilled workers finally persuaded the government to take action. After witnessing a huge brain drain of doctors (among the 3,000 medical students went abroad

in last three years, none returned), the health ministry has suspended issuing "no obligation to return certificates" to the medical students going abroad for higher studies.

Further, from 2015 onwards, the medical students going to the US for higher studies will have to sign a bond with the government, promising to return to India after completing his / her studies. If the student doesn't fulfill the bond obligation, the ministry can write to the US and the permission for the student to practice in the country will be denied.

While India is putting the best foot forward to curb brain drain, there are signs of reverse brain drain where a few best brains are returning to India. With better economic policies and the human capital to execute them, there is still hope for India.

Conclusion

Admittedly, brain drain from India cannot be curbed fully. However, with modern technologies arriving in India, incentives offered to start own enterprises and start-up companies, highly skilled Indian professionals may find it lucrative to work here rather than migrate.

Here are some indicators that brain drain from India may ebb over the coming years:

- Indian companies now pay salaries comparable with their foreign counterparts.
- Stricter visa regulations by the US, EU and other countries means, skilled Indians will find it difficult to migrate.
- The Make In India initiative has seen scores of foreign companies open business in India. Their pay scales meet international standards. Hence, Indian brains can find well paid jobs without leaving the country.
- Investor friendly policies adopted by the government will most likely see skilled Indians launching their own start-up ventures that can compete with their foreign rivals.
- Policies of America First adopted by President Donald Trump of the US are likely to cause thousands of highly qualified and skilled Indians to return home and launch their own ventures.

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DIGITAL PAYMENTS IN INDIA—WITH SPECIAL REFERENCE TO PREPAID PAYMENT INSTRUMENTS

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India Indian economy is going towards a cashless economy and digitalization of payment system has contributed it to a lot. Digital payment is the transfer of funds which is initiated by transferor by way of instruction, authorization or order to a bank of debiting or crediting an account through electronic means and includes point of sale transfers; automated teller machine transactions, direct deposits or withdrawal of funds, transfers initiated by telephone, internet and card payment etc.

Digitalization provides the customer an easier and speedy process of payment which involves significantly less charges. There is a very little requirement to keep records of digital payments because these transactions are automatically saved in the computerized system. Government and various players in the field of Digitalized Payments have also given various incentives in terms of cash-backs and discounts etc. In India bill payment has now become quite easy. Various types of Applications and Digitalized tools have been developed to facilitate bill payment in India. And most of all these digitalized methods of payments have reduced the problem of black money to a great extent.

Segments of Digital Payment System in India

The digital payment system of can be bifurcated into the following two parts——— could be bifurcated into two main segments.

- **Systemically Important Financial Market Infrastructure (SIFMIs)—**This segment includes the methods of digital payment like Real Time Gross Settlement (RTGS), Collateralized borrowing and lending obligations (CBLOs), Government Securities Clearing and Forex Clearing.
- **Total Retail Payments—** This segment includes the three sub-segments.the first sub-segments is Total Paper Clearing, second sub-segment is Total Retail Electronic Clearing and the third and last sub-segment is Total Card Payments. Further the sub-segment Total Paper Clearing includes Cheque Truncation System (CTS), MICR Clearing and Non-MICR Clearing. Total Retail Electronic Clearing includes Electronic Clearing Service (debit), Electronic Clearing Service (credit), National Electronic Funds Transfer (NEFT) ,Immediate Payment service (IMPS) and National Automated Clearing House(NACH.) Total Card Payments includes Debit Cards, Credit Cards and Prepaid Payment Instruments (PPIs).

In this paper we are going to concentrate only on Prepaid Payment Instruments (PPIs). Though PPIs have a very small share in total digital payment mechanism of India and it is in its childhood stage, this study of PPIs has become quite important keeping the growth of this type of mode of digital payment.

Objectives of the Study

- To have a brief idea about the digital payment segment of India
- To have an idea of the Total Digital Payment in India in terms of Volume and in terms of Value

· To have an idea of the share of prepaid payment instruments in the Total Digital Payment in India both in terms of volume and in terms of value.

· To know the growth rate of the total digital payment of India and PPIs.

Research Methodology

This research is primarily based on the secondary data derived from the Annual Reports of the various Ministries of Indian Government. Besides it, various research paper, newspapers, magazines, books and articles etc. also have been gone through to derive relevant data. Techniques used for interpretation of data and facts are tabulation, diagrammatical representation, correlation and growth analysis based on the geometric mean.

The hypothesis behind this study is—

· There is not any significant correlation between the Total Amount of Digital Payments in India and the Total Amount of PPIs

· The growth of PPIs is slower than the growth of Digital Payments in India. Paper Clearing (5+6+7)

What are PPIs

(PPIs) come with a pre-loaded value and in some cases a pre-defined purpose of payment. PPIs are licensed and regulated by the Reserve Bank of India. Prepaid payment instruments are methods that facilitate purchase of goods and services, financial services, remittance facilities etc. against the value stored on such instruments. The value of such instruments represents the value paid for by the holder, by cash, by debit to a bank account, or by credit card.

The prepaid instruments may be in the form of can be issued as smart cards, magnetic stripe cards, internet accounts, online wallets, mobile accounts, mobile wallets, paper vouchers and any such instruments used to access the prepaid amount. PPIs in the form of paper vouchers are not legal at present.

Types of PPIs in India

(i) Closed System PPIs—- These PPIs are issued by an entity for facilitating the purchase of goods and services only from issuer entity and do not permit cash withdrawal. As these instruments cannot be used for payments or settlement for third party services, so the issuance and operation of such instruments does not require approval / authorisation by the RBI. These are also called closed wallet to be used exclusively for the transactions with issuer company. Examples: Bigbasket Wallet, Cleartrip Wallet etc.

(ii) Semi-closed System PPIs—— These PPIs are issued by banks (approved by RBI) and non-banks entities (authorized by RBI) for purchase of goods and services, financial services, remittance facilities etc., at a group of identified merchant locations / establishments which have a specific contract with the issuer regarding the acceptance of these PPIs as payment instruments. These instruments also do not allow cash withdrawal or redemption. Example: OxigenWallet, Mobikwik Wallet etc.

Semi-closed PPIs can be of two types:

(i) PPIs upto Rs.10000/- where minimum details of the PPI holder are obtained (minimum detail PPI).

(ii) PPIs upto Rs.100000/- where KYC of the PPI holder is obtained (KYC compliant PPI).

(iii) Open System PPIs—— These PPIs are issued only by banks (approved by RBI) and are used at any merchant for purchase of goods and services, including financial services, remittance facilities, etc. Cash withdrawal at ATMs / Points of Sale (PoS) terminals / Business Correspondents (BCs) are also allowed through such PPIsThese payment instruments can be used for purchase of goods and services and also allow cash withdrawal at ATMs, Merchant Local Locations, and automated business correspondents. Examples: Visa, Mastercard, RuPay etc.

Open System PPIs can be issued only by banks with RBI approval to issue such PPIs. In India,there is only one type of open system PPI i.e. PPI upto Rs.100000/- after completing KYC of the PPI holder (KYC compliant PPI).

Open System PPIs are reloadable in nature. The amount outstanding in such a PPI should not exceed [1] 1,00,000/- at any point of time. They can be used for many purposes like purchase of goods and services, funds transfer and cash withdrawal.

Popular PPIs of India

The Payment and Settlement Systems Act, 2007, Board for Regulation and Supervision of Payment and Settlement Systems Regulations, 2008 and the Payment and Settlement Systems Regulations, 2008 have come into force w.e.f.12th August, 2008. The list of PPI operators authorised by the Reserve Bank of India include 47 companies. Following is the names of some popular PPI operator companies——

Amazon Pay (India) Private Limited, Delhi Metro Rail Corporation Limited, Itz Cash Card Ltd, InCashMe Mobile Wallet Services Private Limited, Manappuram Finance Limited, One Mobikwik Systems Private Limited, Oxigen Services (India) Pvt. Ltd., PayU Payments Private Limited, Pay Point India Network Private Limited, Phonepe Private Limited, Smart Payment Solutions Pvt. Ltd., Sodexo SVC India Pvt. Ltd, Pine Labs Private Limited, QwikCilver Solutions Pvt. Ltd., ZipCash Card Services Pvt. Ltd., Vodafone m-pesa Limited, Transcorp International Limited, Spice Digital Ltd etc.

Table 1

Volume of Total Digital Transactions and Total PPI Transactions (In Millions)

&

Share of PPI Transactions in Volume of Total Digital Transactions (In %)

Year	Total Digital Transactions	Total PPI Transactions	Share of PPI Transactions in Volume of Total Digital Transactions (In %)
2013-14	3711.1	133.6	3.6000
2014-15	4717.4	314.5	6.6668
2015-16	7046.6	748	10.6151
2016-17	10991.2	1963.7	17.8661
2017-18	15888.5	3459	21.7705

Source— Annual Reports of RBI-Various issues

Findings & Explanation——The table shows that the Volume of the Total Digital Transactions & Total PPI Transactions has been continuously increasing throughout the period of our study. Besides it the share of PPIs transactions in volume of Total Digital transactions is also continuously rising. All

these show that Indian mass is turning towards digital modes of Payments and use of PPIs is on the rise.

The Coefficient of Correlation between the Volume of Total Digital Transactions & Total PPI Transactions is 0.9961. This very high degree coefficient of correlation shows a very high degree of co-variability between the two factors. The data for the last five years shoe that both the factors i.e. the Volume of Total Digital Transactions & Total PPI Transactions are increasing rapidly in the upward directions.

The volume of Total Digital Transactions; during the period of our study, has become from 3711.1 million in 2013-14 to 15888.5 million in 2017-18. On the other hand the volume of Total PPI Transactions; during the period of our study, has become from 133.6 million in 2013-14 to 3459 million in 2017-18. If we talk about the Compound Annual Growth Rate (CAGR) of the Volume of the Volume Total Digital Transactions, this rate is 33.76% p.a.. & in case of volume of Total PPI Transactions, CAGR is 99.70% p.a.. The growth rate of both the factors is tremendous especially for the PPIs. The growth rate of Volume of PPIs transactions exhibits the increasing popularity of PPIs in India mass.

Also the share of PPI transactions in the volume of the total digital transactions is continuously rising in a rapid way. This share has become from 3.6% in 2013-14 to 21.77% in 2017-18 thus exhibiting the increasing popularity of PPIs in India mass.

Table 2

Value of Total Digital Transactions and Total PPI Transactions (In Billion Rs.)

&

Share of PPI Transactions in value of Total Digital Transactions (In %)

Year	Digital Transactions	PPI Transactions	Share of PPI Transactions in value of Total Digital Transactions(In %)
2013-14	1499570	81	0.0054
2014-15	1660158	213	0.0128
2015-16	1809701	488	0.0270
2016-17	2258780	838	0.0371
2017-18	2527539	1416	0.0560

Source— Annual Reports of RBI-Various issues

Findings & Explanation—-The table shows that the Value of the Total Digital Transactions & Total PPI Transactions has been continuously increasing throughout the period of our study. Besides it the share of PPIs transactions in value of Total Digital transactions is also continuously rising. Still the share is quite negligible. All these show that Indian mass is turning towards digital modes of Payments and use of PPIs is on the rise.

The Coefficient of Correlation between the Value of 'Total Digital Transactions' & 'Total PPI Transactions' is 0.9839. This very high degree coefficient of correlation shows a very high degree of co-variability between the two factors. The data for the last five years show that both the factors i.e. the Value of 'Total Digital Transactions' & 'Total PPI Transactions' are increasing rapidly in the upward directions.

The value of Total Digital Transactions; during the period of our study, has become from 1499570 billion in 2013-14 to 2527539 billion in 2017-18. On the other hand the value of Total PPI Transactions; during the period of our study, has become from 81 billion in 2013-14 to 1416 billion in 2017-18. If we talk about the Compound Annual Growth Rate (CAGR) of the Value of the Total Digital Transactions, this rate is 11.01% p.a. & in case of value of Total PPI Transactions, CAGR is 77.22% p.a.. The growth rate of both the factors is tremendous especially for the PPIs. The growth rate of Volume of PPIs transactions exhibits the increasing popularity of PPIs in India mass.

Also the share of PPI transactions in the value of the total digital transactions is continuously rising in a rapid way. This share has become from 0.0054% in 2013-14 to 0.0560% in 2017-18 thus exhibiting the increasing popularity of PPIs in India mass. Though the share of PPIs in the value of Total Digital Payment is quite negligible but it is mentionable that the share is continuously rising.

Conclusion— Keeping in view the very high degree of correlation between the two factors i.e. 'Total Digital Transactions' and 'Total PPI transactions' whether in terms of volume or in terms of value, it can be said that there is significant correlation between the 'Total amount of Digital Payments' in India and 'Total amount of PPI' in India both in terms of volume and value. Thus first hypothesis of our study stands failed. If we talk about the second hypothesis of the study regarding the Growth of PPI and Digital Payments in India, it also stands failed because growth of PPI is Greater than growth of Digital Payments in India in terms of volume and on the other side also growth of PPI is greater than growth of Digital Payments in India in terms of value. On the basis of the above mentioned findings and explanations, we can say that the movement of Digital payments in India is getting momentum in India and as a minute part of it PPI is showing tremendous growth both in terms of volume and in terms of value. The need of the hour is to promote various types of Prepaid Payment Instrument in India especially the open system PPI. Government/RBI should provide some incentives for the companies to come forward in bringing various types of PPIs in India so as to facilitate the customers as there is a lot of scope in the field of PPIs because its share in Total value of Digital Transaction is quite minute.

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Diagram 1

Volume of Total Digital Transactions and Total PPI Transactions (In Millions)

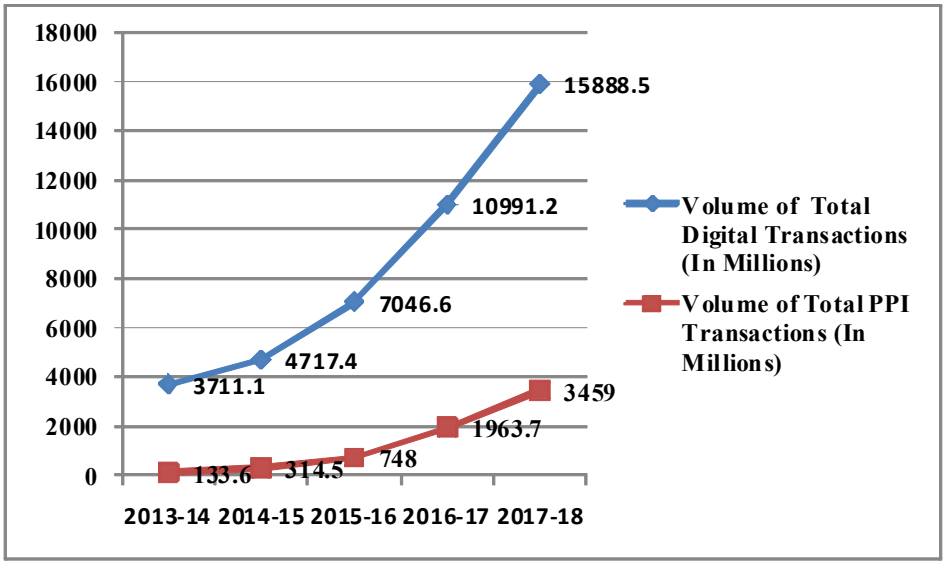


Diagram 2

Value of Total Digital Transactions and Total PPI Transactions (In Billion Rs.)

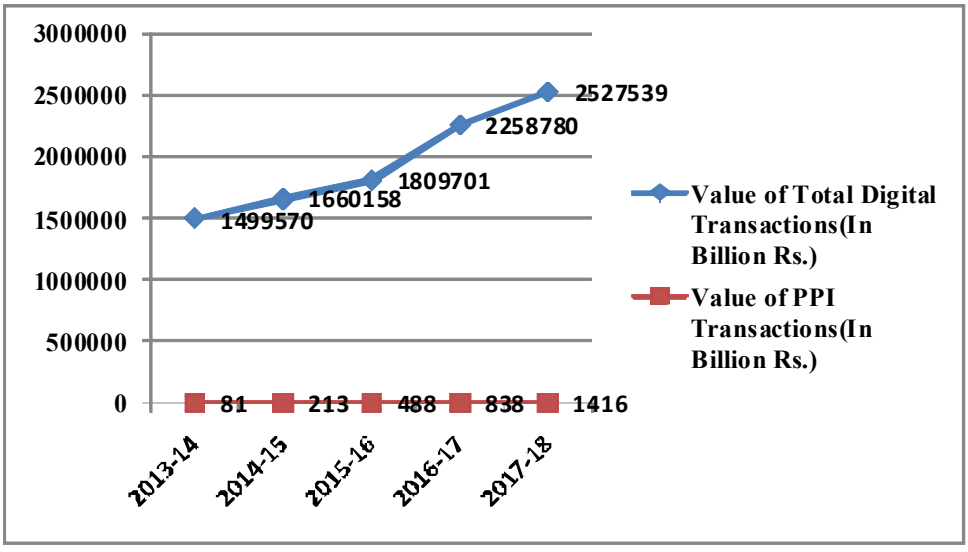
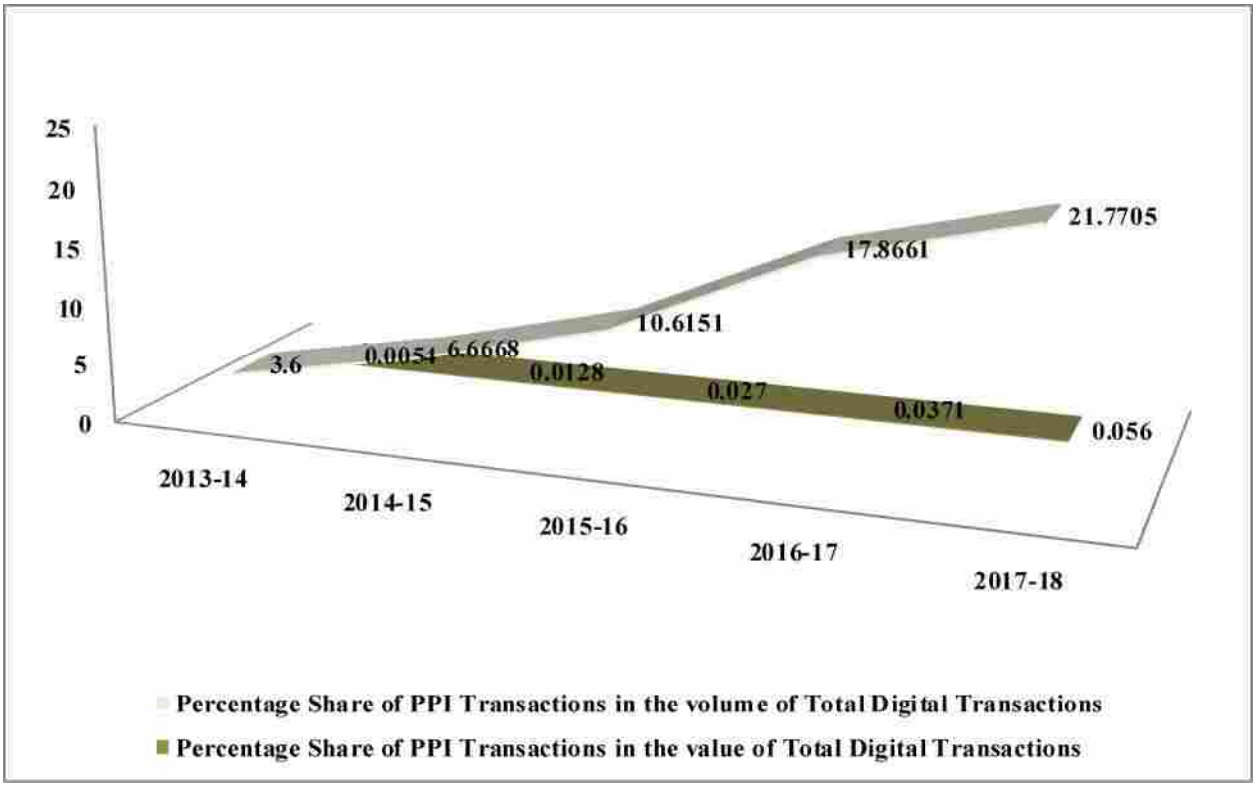


Diagram 3

Percentage Share of PPI Transactions in Volume of Total Digiltal Transactions (In terms of Volume and Value)



EFFECTS OF DIGITAL INDIA ON INDIAN ECONOMY.

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Introduction:

Digital India is a campaign launched by the Government of India. It is launched by Prime Minister Mr.Narendra Modi to provide digital services to the people of India like adhar card link Start-ups, Make in India etc. The initiative includes plans to connect rural areas with high-speed internet networks. Digital India consists of three core components: the development of secure and stable digital infrastructure, delivering government services digitally, and universal digital literacy.

The main vision of digital India Programme is the growth of Indian economy by providing them digital facilities. Now a day's digitalization becomes the backbone of each and every one and whole India relies on it whether it is digital infrastructure or core governance etc. The paper deals with the impact of digital India in order to transform the entire economy and bring self-reliance power among all citizens of India by making it cash less paper less etc.

Objectives of the study:

This paper aims to provide a basis for the conceptual framework of digital India. An attempt is made to highlight the following aspects:

- To develop a framework of digital India on Indian economy
- To study the role and impact of digitalization.

Need for digitalization in Economy:

- In order to transform the entire economy's public services with information technology.
- To make digital infrastructure for citizens of India.
- To provide services on demand basis and make digital empowerment with the help of variety of services.
- To ensure the government services available electronically.
- To lay emphasis on e –governance and transform ease of working.

Benefits of digital India:

- Digitalization's aim is to bridge the gap between government departments and people in general would be minimized by making transactions electronic.
- It makes economy digital and knowledge economy.
- Providing easy access to citizens to common service centers and such sectors on private space on public clouds that can be shared with others.
- Providing Cyber safety, security and accessibility to digital education.
- Encouragement to e-cash, e-payments, paper less cash etc.

Backbone of Digital India for growth:

1. Broadband highways – All the three of Broadband for all – Rural, Broadband for all – Urban and National Information Infrastructure (NII) are covered in this.

2. Universal access to mobile connectivity – Providing access to all through penetration of networks and filling all the gaps existing in connectivity structures.

3. Public internet access programme – Common Service Centers (CSCs) and Post Offices providing multiple services are the two components that are covered under this.

4. E-governance – Government Process Re-engineering and restructuring by using technical and IT tools, so that efficiency and transparency can be improved in governance. It is essential to fasten and simplify the government processes to transform governmental sectors technologically advanced and efficient.

5. E-kranti – Efforts have to be made at all the levels of governance to enhance the efficiency of delivering and ease of accessing of government services by people by providing online access to services. The aim is to move government and citizenry closer and within reach of each other.

6. Information for all – Information must be available for everyone through electronic means or network based resources. Regular interactions of government with citizens are essential through social media sites or web based programs, for good e-governance.

7. Electronics manufacturing – Electronic equipment's are the basic requirement for the programme to be implemented successfully. Manufacturing indigenous technology is important to attract investment in the sector and to reduce imports.

8. IT for jobs – Providing training to youth in IT sector to enhance their employability skills and improving their prospects in securing a good job in today's digitally changing environment.

9. Early harvest programs – These programmes are those which run with a deadline with in which they have to be completed. The timespan for these programs consist of a short time period, i.e., within 3 years. Some of the projects included in it are biometric attendance, Wi-Fi in all universities,

secure e-mail within government, school books to be e-books, National portal for lost and found children, etc.

Impact of Digitalization on Indian Economy:

- Digitalization played a vital role in making economy developed by its various job opportunities like make in India, various start- Ups etc.
- Economy consists of various pillars like :

(a) **Agriculture:** 1. world's largest juice, Pulses producers in recent years, Holds rank in Silk Production this all helps in increasing GDP.

2. Automation in the agricultural sector like fertilizers, availability of information, agricultural research &Development etc. helps in boosting our nation's economy.

(b) Better Employment and Human Power**.**

(c) Higher rate of Returns expected and agricultural literacy programs

(d) Better Irrigational Facilities, increased rate of return and cost reduction.

(e) Increase in Export Services and establishments of BPOs

(f) Establishment Product and service Market and Market research

(g) Improvement in international trade

(h) Improvements in Infrastructural and telecommunication Sector.

Challenges for digital India:

- **Financial, technological and Infrastructural issues**: India is still in the development phase and for this plans like this, huge financial resources and investment in infrastructure and technology are somehow lacking.it requires assistance from other sources too.

Technological issues like appropriate band width, firewalls, filters, anti-virus software's, protection from hackers, buffering are some of the technical issues the country has to face.

- **Lack of education and non-availability of educational programs:** Majority is still fighting with learning digital education and for them understanding tactics of electronic gadgets is quite difficult. As very less educational programs are there for digital learning.
- **Cybercrimes and lack of confidence among people about technology**: Cyber security has not given so much priority so that crimes usually takes place .Cyber laws are also not yet updated.
- **Lack of training programs and awareness**: It's quite difficult and tedious task to train many people of different capacities and interest into one common discipline. Most of the population lack the basic technical qualification required for the job. The personnel's who are managing it must work on machine task.

Conclusion:

Digitalization improves and affects the various sectors which lead to improvement in effectiveness and efficiency of people. They are much aware of the Knowledge concept .E-governance improves quality of work and increases speed. Automation of agricultural sector helps in becoming booming sector, helps in growing GDP, reduces uncertainties in the sector and ensures effective and optimum utilization of resources. Automation of industry leads to better product designs and increased profit margins thereby leading to healthy competition and growth of the sector. Digitalization of services

will lead to enhanced customer satisfaction and improved service quality by timely and wider reach of service delivery. Also, digitalization of the service sector throws open wide scope and arenas for development and growth of the sector. Digitalization also impacts the employment scenario in the country. To shift Indian Economy from developing economies to developed economies, a lot of work need be done. Enhancing and promoting digitalization in the country is one step towards that goal. Various steps need to be taken to remove obstacles and hindrances from the path of digitalization. Proper implementation of digital India programme will lead to better agricultural return per capita, better cost output ratio of industrial produce and better service quality. It enables transparency in all the systems and processes thereby improving quality of life.

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'निराला' और साहित्य का अर्थतंत्र

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कवि शमशेर बहादुर सिंह ने निराला को याद करते हुए लिखा है –

"भूलकर जब राह, जब जब राह, भटका मैं
तुम्हीं झलके, हे महाकवि
सघन तम की आँख बन मेरे लिए."

निराला बीसवीं शताब्दी के विश्व के महत्वपूर्ण कवियों में से एक हैं. नवजागरण और राष्ट्रीय–चेतना के भारतीय समय में उनकी उपस्थिति ने हिंदी कविता और साहित्य को 'नव गति और नव रंग' से भर दिया था।

एक कवि और एक नागरिक के रूप में निराला का जीवन आसान नहीं था, साहित्य के क्षेत्र में जहाँ उन्हें स्वीकृति बाद में मिली, वहीं एक औसत जीवन के लिए जरूरी सहूलियतें भी वे, बमुश्किल जुटा पाते रहे।

उनका संघर्ष जीवन और साहित्य के मोर्चों पर एक साथ लड़ा जाता रहा, जीवन में लगातार हारते हुए वे साहित्य को उम्मीद और आशा से देखते रहे। साहित्य की उनकी आत्महंता साधना ने उन्हें एक कवि के रूप में आज भी प्रासंगिक बनाये रखा है।

निराला की साहित्य–साधना को समझने के लिए गुलाम भारत में सृजित और निर्मित हो रहे हिंदी साहित्य की स्थिति और भूमिका तथा किसी औपनिवेशिक देश में एक लेखक की क्या चुनौतियां होती हैं इसे भी समझना चाहिए।

स्वतंत्र भारत की एक राष्ट्रभाषा हो और वह देवनागरी लिपि में लिखित हिंदी हो यह कामना बीसवीं सदी के प्रारम्भिक हिंदी लेखकों की एक अहम विशेषता है. हिंदी के प्रचार और प्रसार के लिए अधिकांश भाषा–प्रेमी अपना खून–पानी बहाते रहे. मुद्रित हिंदी साहित्य ने धीरे–धीरे एक समुदाय का निर्माण तो कर लिया जो हिंदी पढ़ता–लिखता था पर साहित्य से स्वाभाविक लगाव आज तक नहीं विकसित कर सका जो उस समय मराठी और बांग्ला आदि भाषाओं में विकसित हो गया था. इसका सबसे अधिक नुकसान हिंदी के लेखकों को हुआ. उनका पाठक उन्हें मिला ही नहीं. एक ऐसा पाठक वर्ग जो अपने प्रिय लेखकों की किताबें खरीदता है और पढ़ता है. अगर भाषा के लोग अपने लेखकों की किताबें क्रय नहीं करेंगे तो वह लेखक किस आर्थिक आधार पर अपना लेखन अनवरत रख पायेगा।

यह पीड़ा निराला की कविताओं में जहाँ–तहाँ दिखती है. अपनी पुत्री सरोज के असमय निधन का कारण निराला अपने लेखन–कार्य को समझते थे। पिता के रूप में अपनी निरर्थकता का तीखा बोध उन्हें इसी आर्थिक आधार पर हुआ. उन्हें लगता था कि पुत्री का 'उत्तम पोषण' वे अर्थ उपार्जन की अपनी इसी अक्षमता के कारण नहीं कर सके. 'सरोज स्मृति' नामक अपनी लम्बी शोक कविता में निराला लिखते हैं।

"धन्ये, मैं पिता निरर्थक था
कुछ भी तेरे हित न कर सका
जाना तो अर्थागमोपाय
पर रहा सदा संकुचित–काय
लख कर अनर्थ आर्थिक पथ पर
हारता रहा मैं स्वार्थ–समर"

निराला एक ऐसे समुदाय के लिए लिख रहे थे जो अभी वास्तविकता में उतरा ही नहीं था. उस समय के लगभग सभी हिंदी के लेखकों की आर्थिक स्थिति ऐसी ही थी। निराला के साथ अतिरिक्त यह था कि वे फुलटाइमर साहित्यकार थे. उनकी आजीविका

प्रकाशित कविताओं के मानदेय और पुस्तकों की रायल्टी पर निर्भर थी. कहना न होगा कि आज भी इन सबसे एक औसत क्या गरीबी रेखा के नीचे का जीवन भी संभव नहीं है।

जब उनसे कहा गया कि कविताएँ लोग नहीं पढ़ते आप उपन्यास लिखिए तब इसी प्रकाशकीय दबाव में उन्होंने अप्सरा, अलका, प्रभावती, निरुपमा जैसे उपन्यास और लिली, सुकुल की बीवी, देवी जैसी कहानियाँ भी लिखीं. बांग्ला से हिंदी में खूब अनुवाद किया. पर जो समाज कविता नहीं पढ़ता वह उपन्यास और कहानियां भी कहाँ तक पढ़ता. वस्तुतः हिंदी समाज एक अपठित समाज तब भी था, आज भी है।

निराला खासतौर से किताबों की रायल्टी के दोषपूर्ण व्यवस्था के भी शिकार हुए. प्रकाशक उन्हें एक मुश्त रकम (जो वास्तव में छोटी ही होती थी) देकर उनकी रचनाओं के सर्वाधिकार ले लेते थे। निराला के पास पैसे टिकते नहीं थे, वे अक्सर इनसे जरुरतमंदों की सहायता कर दिया करते थे. प्रकाशक उनकी किताबें बेच कर वर्षों इनसे धन कमाया करते थे. इतिहासकार रामचंद गुहा ने लिखा है–

"हाल ही में, मुझे कुछ ऐसे दस्तावेज़ मिले जो यह प्रमाणित करते हैं कि वास्तव में नेहरू निराला के प्रशंसक तो थे ही, उन्हें निराला से गहरा स्नेह भी था. यह प्रमाण मुझे मिला, डी.एस. राव द्वारा लिखे गए साहित्य अकादेमी के इतिहास, "फ़ाइव डिकेड्स" के परिशिष्ट में. साहित्य अकादेमी का औपचारिक उद्घाटन संसद के केंद्रीय हाल में 12 मार्च, 1954 को हुआ था. अगले ही दिन यानी 13 मार्च को प्रधानमंत्री नेहरू ने साहित्य अकादेमी के नवनियुक्त सचिव कृष्ण कृपलानी को निराला के बारे में एक ख़त लिखा. नेहरू ने लिखा कि "निराला पहले भी काफी सृजनात्मक लेखन कर चुके हैं और आज भी जब अपने रौ में लिखते हैं तो कुछ बेहतर लिखते हैं". निराला की किताबें तब लोकप्रिय थीं और पाठ्य–पुस्तकों के रूप में भी उन्हें पढ़ा जाने लगा था. पर नेहरू के शब्दों में, "निराला ने अपनी किताबों को महज़ 25, 30 या 50 रूपये पाकर प्रकाशकों को दे दिया, लगभग सारी किताबों के कॉपीराइट वे (निराला) प्रकाशकों को दे चुके थे". नतीजा यह कि "प्रकाशक तो निराला की किताबों को बेचकर अच्छा–ख़ासा धन कमा रहे थे, पर निराला मुफ़लिसी में जी रहे हैं।

समाज की इस वास्तविकता ने जब साहित्य से मुठभेड़ किया तब जिस ध्वंस की आशंका थी उसकी अनुगूँज निराला की ही कविताओं में सुनाई पड़ी. इस कर्म को ही प्रश्नांकित करते हुए जैसे वह श्राप दे रहें हो. 'सरोज–स्मृति' में लिखते हैं।

"दुःख ही जीवन की कथा रही
क्या कहूँ आज, जो नहीं कही
हो इसी कर्म पर वज्रपात
यदि धर्म रहे नत सदा माथ
इस पथ पर मेरे कार्य सकल
हों भ्रष्ट शीत के –से शतदल. "

औपनिवेशिक भारत में राष्ट्रीय–चेतना और नवजागरण के बीच हिंदी के लेखक अपनी राष्ट्रीय ज़िम्मेदारी भी समझ रहे थे पर ब्रितानी सत्ता के दबाव के कारण वे खुल कर अपने को व्यक्त भी नहीं कर पा रहे थे. निराला की कविताओं में स्वाधीनता का अंडर करेंट आपको मिलेगा. स्वाधीनता के अरुण को कविओं ने उगते हुए पहले ही देख लिया था. उसके स्वागत में कवि धरती आसमान को नए रंगों से भर रहे थे. निराला लिखते हैं–

रंग गई पग–पग धन्य धरा
हुई जग जगमग मनोहर.

इस वसंत के आगमन की चाह में निराला की कविताएँ खुद पुष्प की तरह खिल गयीं हैं और भौरें की तरह गुनगुन कर रहीं हैं

सखि, वसंत आया
भरा हर्ष वन के मन
नवोत्कर्ष छाया.।

स्वाधीनता का यह कवि अपनी कविताओ में कभी भी आम नागरिक को अपनी नज़रों से ओझल नहीं करता है. उनके दुःख–सुख में वह साथ खड़ा है. निराला तो अपनी कविताओं में पराधीन भारत के नागरिक की वेदना को प्रकट करने के लिए खुद कविता की शैली बदल देते हैं–

मैंने मैं शैली अपनायी
देखा दुखी एक निज भाई
दुःख की छाया पड़ी हृदय में मेरे
कर उमड़ वेदना आयी।

उनके विषय में आचार्य शिवपूजन सहाय ने लिखा है– "निरालाजी क्रन्तिकारी विचार के थे. उन्होंने काव्यशैली में क्रांति उपस्थित कर दी. वे युग–प्रवर्तक थे। साहित्य–क्षेत्र में नवयुग का सुप्रभात दिखाकर उन्होंने अपना नाम सार्थक किया. पर सबसे बढ़कर वे देवोपम मनुष्य थे।"

इस तरह के स्वाधीन लेखक से ब्रितानी सत्ता जहाँ उपेक्षा और अवहेलना का भाव रखती थी वहीँ स्वाधीन भारत में भी वह राज–सत्ता के लिए असुविधाजनक ही बने रहे. अक्सर ऐसे लेखकों को उसका समाज थाम लेता है पर निराला जिस भाषा में लिख रहे थे वहां यह अब भी संभव कहाँ है?

आज़ादी के बाद इस दिशा में थोड़े प्रयास जरुर हुए पर वे भी निराला के सम्बन्ध में देर से हुए और आज भी नाकाफी हैं. रामचंद्र गुहा लिखते हैं–

"नेहरू ने अपने ख़त में लिखा कि "निराला का उदाहरण प्रकाशकों द्वारा एक लेखक के शोषण का ज्वलंत उदाहरण हैं". नेहरू ने अकादमी से आग्रह किया कि वह कॉपीराइट कानून में कुछ ऐसे बदलाव करे, जिससे भविष्य में भारतीय लेखकों का कोई शोषण न हो. आगे नेहरू ने लिखाः "इस दौरान निराला को कुछ आर्थिक मदद जरूर दी जानी चाहिए. यह आर्थिक मदद सीधे तौर पर निराला के हाथ में नहीं दी जानी चाहिए, क्योंकि वे तुरंत ही इसे किसी दूसरे जरूरतमंद को दे देंगे। असल में, वे अपने कपड़े और सारी चीजें ऐसे ही लोगों को दे दिया करते हैं"।

उस समय महादेवी वर्मा और इलाहाबाद के एक साहित्यिक संगठन से जुड़े सदस्य निराला की जरूरतों का खयाल रखते थे और उनकी आर्थिक मदद भी किया करते थे. नेहरू ने अकादेमी को सुझाव दिया कि निराला को सौ रुपए की मासिक वृत्ति दी जाय, और यह रकम निराला के एवज में महादेवी वर्मा को दी जाय. 16 मार्च 1954 को अकादेमी के सचिव ने नेहरू को जवाबी ख़त लिखा. सचिव ने लिखा कि उन्होंने अपने मंत्रालय के प्रमुख मौलाना अबुल कलाम आज़ाद से बात की है और उन्होंने इस बात के लिए अपनी सहमति दे दी है कि "निराला को सौ रूपये की मासिक वृत्ति दी जाए और यह रकम महादेवी वर्मा को सौंपी जाए"।

सरकारी कामों और निर्णय लेने की गति को ध्यान में रखें तो यह सब कुछ मानो प्रकाश की गति से हुआ, तीन दिनों के भीतर निर्णय भी ले लिए गए और उनका क्रियान्वयन भी कर दिया गया! आज के भारत यह सोचना भी असंभव है कि एक कवि की तंगहाली से चिंतित होकर, कोई प्रधानमंत्री उसे आर्थिक मदद देने की बात सुझाते हुए ख़त लिखेगा और यह भी बताएगा कि यह किसके हाथों में या किसके जरिए दी जाय। पर यह उस हिंदुस्तान में बिलकुल संभव था जो नेहरू और आज़ाद का हिंदुस्तान था। और यह प्रवृत्ति सिर्फ़ कांग्रेस पार्टी तक ही नहीं सीमित थी। डी.एस. राव ने साहित्य अकादेमी के अपने इतिहास में, कम्युनिस्ट सांसद हीरेन मुखर्जी और चक्रवर्ती राजगोपालाचारी के खतों का भी हवाला दिया है, जो साहित्य अकादेमी के आरंभिक वर्षों में उसकी गतिविधियों और कार्यों पर की गई टिप्पणियाँ थीं।"

निराला जैसे लेखक का पर अंत नहीं होता. उन्हीं के शब्दों में

"मेरे ही अविकसित राग से
विकसित होगा बन्धु दिगन्त
अभी न होगा मेरा अंत."

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संगीत निर्देशन के क्षेत्र में तकनीकी का उपयोग

डॉ0 दीपक त्रिपाठी
संगीत विभाग
साहू जैन कॉलेज, नजीबाबाद

फिल्म जगत सदैव ही सामाजिक पृष्ठभूमि को सम्प्रेषित करने का सशक्त माध्यम रहा है। हमारे समाज में जो भी वैज्ञानिक विकास होते हैं, उन्हें प्रचारित करने के लिए अनेकानेक संसाधनों का प्रयोग होता है जिनमें से एक फिल्म जगत भी है। अब बात आती है संगीत की तो भारतीय ही नही वरन् अन्तराष्ट्रीय स्तर पर भी यदि देखा जाये तो फिल्म जगत् की रीढ़ उसका संगीत होता है। भारतीय जनजीवन में गीत–संगीत की प्रधानता रही है। यही कारण है कि गीत–संगीत के बिना भारतीय फिल्म जगत की कल्पना भी नहीं की जा सकती। "भारतीय फिल्मों में संगीत का महत्व उस समय से है जब मूक(साइलेंट) फिल्में बन रही थीं। इन मूक फिल्मों हेतु पर्दे के सामने एक पिट में साजिन्दे बैठा दिये जाते थे और वे दृश्य के अनुकूल धुनें बजाते रहते थे। बोलती हुई फिल्मों का निर्माण शुरू होने पर संवादों के साथगीत भी जुड. गये।" जैसे–जैसे फिल्म तकनीक का विकास हुआ वैसे–वैसे फिल्म कला में भी उत्तरोत्तर वृद्धि हुई है।

संगीत निर्देशन, कला की आत्मानुभूति का प्रर्दशन है। यह नैसर्गिक क्रिया है तथा इसकी कोई सीमा नहीं है। यही कारण है कि यह यथा देश, काल, परिस्थिति के अनुसार परिवर्तित तथा परिमार्जित होती रहती है। बोलती फिल्मों के आगमन से फिल्मों में गीत–संगीत का प्रचार बढ़ा।उन दिनों सुरेन्द्र, के0 एल0 सहगल, रामानंद पंडित, गौहरबाई, जद्दनबाई, राजकुमारी आदि ऐसे कलाकार थे जो अभिनय के साथ–साथ गाना भी गा सकते थे। परन्तु कभी–कभी किसी आकर्षक व्यक्तित्त्व अभिनय में कुशल पात्र को गाने की जानकारी न होने के कारण फिल्मों में प्रवेश नहीं मिल पाता था। जिस कारण फिल्म जगत में पार्श्वगायन की आवश्यकता को महसूस किया गया। "1934 में नितिन बोस के निर्देशन में एक फिल्म बन रही थी भाग्यचक्र। इस फिल्म के कलाकार प्रेम अदीब और बेगमदपारा थे। फिल्म की कहानी में नायिका को एक शास्त्रीय गीत गाना था और बेगम पारा शास्त्रीय गायन नहीं जानती थीं। निर्देशक के काफी प्रयास के बाद भी वह गीत नहीं गा सकी। एक दिन निद्रेशक नितिन बोस गायिका पी. हीरालक्ष्मी का गाना सुन रहे थे। उसी समय उनके दिमाग में उनसे पार्श्वगायन कराने की बात आई। अब कैमरे के सामने बेगमपारा मुँह हिला रहीं थीं और परदे के पीछे पी. हीरालक्ष्मी गा रही थीं। यहीं से प्रत्यक्षगायन पार्श्वगायन की ओर उन्मुख हुआ और धीरे–धीरे पार्श्वगायन की कला स्वतंत्र रूप से विकसित हुई।"

संगीत निर्देशन फिल्म की सफलता का पहला पायदान है। "फिल्म एक लोकतंत्रीय कला है, यह किसी लेखक, मूर्तिकार, चित्रकार, संगीतकार, गीतकार तथा कलाकार की व्यक्तिगत अभिव्यक्ति नहीं है बल्कि इन सभी की कलाओं का सामूहिक योगदान है।"फिल्म जगत में प्रयोग किये जानेवाले गीत–संगीत की निर्माण प्रक्रिया में गीतकार, संगीतकार, विभिन्न सहायक वादक कलाकार , रिकॉर्डिस्ट का सम्मिलित योगदान रहता है। तैयार गीत व संगीत को कहाँ, कैसे प्रयोग करना है यह निर्देशक तय करता है।

मानव जीवन तकनीकी विकास से सदैव अभिप्रेरित रहता है। मनुष्य भौतिकवादी तथा महत्वाकांक्षी होता है। जिससे वह अपनी अभिलाषाओं की पूर्ति हेतु निरन्तर आविष्कार करता है। संगीत निर्देशन में भी तकनीकी आविष्कारों का प्रभाव देखा जा सकता है। यही कारण है कि आज फिल्म के गाने व उसका पार्श्व संगीत (बैकग्राउन्ड म्यूज़िक) रिकॉर्ड करने के लिए पहले की अपेक्षा काफी कम मेहनत व समय लगता है। एक समय था जब अभिनेता कलाकार के करीब साजिन्दे व गायक कलाकार को बैठा कर गाना फिल्माया जाता था। धीरे–धीरे तकनीकि विकास से स्टूडियो में सभी साजिन्दे गायक कलाकार आदि मिलकर गाने को रिकॉर्ड करने लगे। आज तो प्रायः सभी कलाकार अपना–अपना पीस (संगीत का टुकड़ा) बजाकर रिकॉर्ड कर देते है तथा बाद में संगीत निर्देशन व तकनीशियन मिलकर मशीनों के माध्यम से मनचाहे रूप में तैयार कर लेते हैं।

आज संगीत जगत में टेक्नॉलजी का प्रयोग इतना अधिक हो गया है कि वास्तविक संगीत का धरातल धूमिल सा हो रहा है। माइक्रोफोन कम्पनियों ने ऑटोट्यूनर जैसे उपकरणों से बेसुरे को भी सुरीला करने की कोशिश की है। संगीत निर्देशक जतिन ने सिंगिंग रिएलटी शो सा रे गा मा में ऐसे यंत्र की चर्चा की थी। बहुत से बाजार में आज गायक ऐसी तकनीकियों का प्रयोग कर के अपनी कला का प्रदर्शन कर रहें है। तकनीकि उपकरणों से एक ओर जहाँ हमें बहुत सारे इफेक्ट को प्रयोग करना आसान हुआ वहीं कुछ लोग उसका फायदा भी ले रहे हैं। तकनीकि निरंतर अपडेट होने वाली प्रक्रिया है, यही कारण है कि संगीत निर्देशन में जैसे–जैसे तकनीकि का विकास हुआ तो कई नवीन प्रयोग भी देखने को मिले हैं। संगीत निर्देशकों ने समय–समय पर होने वाले तकनीकी प्रयोगों से अपनी कल्पनाशीलता को ऊँचा उठाया है। "1934 में फिल्म भाग्यचक्र से सबसे पहले पार्श्वगायन शुरू हुआ और संगीत निर्देशन में सर्वप्रथम ऑर्केस्ट्रा 1934 मे ही बनी फिल्म पूरनभगत, जिसके संगीत निर्देशक आर0 सी0 बोराल थे"। संगीत निर्देशन में ऑर्केस्ट्राइजेशन इस बात का प्रमाण है कि उस समय में उपलब्ध तकनीकि का उपयोग रहता है। इस दिशा में काम करने वाले निर्देशकों में अनिल विश्वास, गुलाम हैदर, विशेषकर ऑर्केस्ट्राइजेशन का क्षेत्र में राजकपूर ने क्रांति ला दी। पृष्ठभूमि संगीत में तकनीकी द्वारा भावनाओं को अभिव्यक्त किया गया, संगीत निर्देशक जोडी शंकर–जयकिशन ने भरपूर उस के सभी देशी–विदेशी साजों का प्रयोग किया। आगे सी0 रामचंद्र, लक्ष्मीकांत–प्यारेलाल, मदनमोहन के नाम उल्लेखनीय है। अस्सी के दशक में पॉप, डिस्को, रॉक, ब्रेकडांस आदि का प्रभाव हमारी भारतीय संगीत शैली पर हुआ जिसमें तमाम विदेशी अभियांत्रिक साजों का प्रयोग हुआ जो आधुनिक तकनीकी से ओतप्रोत रहे हैं। तकनीकपूर्ण संगीत देने में आर0 डी0 बर्मन को हमेशा याद किया जाता रहेगा। वर्तमान में ए0 आर0 रहमान ने इस क्षेत्र में उच्च कोटि की उपलब्धि अर्जित की है। उनके संगीत में आधुनिक तकनीकी को बाखूबी प्रयोग किया जाता रहा है। यही कारण है कि उन्होने ऑस्कर एवार्ड जीतकर भारतीय संगीत की प्रयोगधर्मिता को प्रतिस्थापित किया है।

अब हम संगीत के क्षेत्र में हुए तकनीकी विस्तार बात करेंगे, पहले के दौर में सांगीतिक उपकरणों में तान पुरा, सितार, हारमोनियम, बांसुरी, तबला, ढ़ोलक, नगाड़ा, ताशा आदि थे किन्तु आज संगीत के अभियांत्रिक उपकरण बहुत से आविष्कृत हो चुके हैं जैसे– सिन्थिसाइजर, पैड, हैन्डसोनिक आदि जिनमें असंख्य साज़ों का समावेश किया गया है। जिससे संगीत का एक विशाल स्वरूप निकल कर बाहर आता है। केवल उसमें संगीत निर्देशक की कल्पनाशीलता ही है कि वह कितना विस्तार कर सकता है।

अतः यह निश्चय सत्य है कि संगीत निर्देशन के क्षेत्र में तकनीकिकरण का प्रभाव स्पष्टतः परिलक्षित होता है। सिन्थेसाइजर संगीत के क्षेत्र की ऐसी उपलब्धि है इस एक यंत्र में अगणित संभावनाएँ है, एक साज में असंख्य साजों का मिश्रण किया गया है। संगीत निर्देशक इसकी मदद से मनःसंवेदनाओं को व्यक्त करने पर काम करते है। बहुत से ऐसे साउंड इफेक्ट जो दृश्य को प्रभावशाली बनाते है। इसके द्वारा संभव हो पाता है। ऐसे ही अन्य उपकरण जैसे मेट्रोनोम, ऑक्जीलोग्राफ, श्रुतिबॉक्स, सुनादमाला, तालमाला आदि है जो संगीत की तकनीकी विकास के उदाहरण प्रस्तुत करते है।

सांगीतिक उपकरणों के साथ–साथ उनको रिकॉर्ड करने के लिए भी तमाम अभियांत्रिक उपकरणों का अविष्कार हुआ है। जैसे– ग्रामोफोन, फोनोग्राफ, टेपरिकॉर्डर, कन्डेन्सर माइक, मिक्सर, आदि । आज तो ऐंड्रॉयड फोन में सांगीतिक एप भी उपलब्ध है जिनमें सीखने और प्रयोग करने की अपार संभावनाएँ है। यह तकनीकी विकास ही है कि आज हम संगीत संरक्षित व संवर्धित कर पा रहे हैं।

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डॉ0 प्रकाश चन्द्र

अतिथि सहायक प्राध्यापक

राजनीति विज्ञान विभाग

श्रीराम सिंह धौनी राजकीय हाविद्यालय, जैती अल्मोड़ा, उत्तराखण्ड़

नेतृत्व की दृष्टि से भारत को सौभाग्यशाली समझा जाता है। पं0 जवाहर लाल नेहरू, सरदार बल्लभ भाई पटेल, लाल बहादुर शास्त्री, श्रीमती इंदिरा गाँधी, श्री मोरार जी देसाई, श्री राजीव गाँधी, श्री नर सिम्हा राव, श्री अटल बिहारी बाजपेई आदि ने कठिन परिस्थितियों में भारत राष्ट्र को नेतृत्व प्रदान किया है। भारत राष्ट्र और भारतीय राज व्यवस्था नेहरू और पटेल के प्रति तो चिर ऋणी रहेगी।

राजनीतिक दलों का मुख्य कार्य सरकार तथा जनता के बीच सम्पर्क स्थापित करना है। वे निर्वाचक समूह को जानकारी प्रदान करने, प्रशिक्षित करने और सक्रिय बनाने की कोशिश करते हैं। राजनीतिक रूप से अपेक्षाकृत निष्क्रिय लोगों से सम्पर्क रखने और विभिन्न नीतियों के प्रति उनमें सजगता उत्पन्न करने व उनसे उन नीतियों का समर्थन पाने के लिए वे जन–सम्पर्क माध्यमों तथा स्थानीय संगठनों का प्रयोग करते हैं, जनता को क्रियाशील बनाने का प्रयत्न करते हैं। राजनीतिक दल, जनता की मांगों को सरकार तक तथा सरकार के निर्णय को जनता तक ले जाने का कार्य भी करते हैं। इस तरह राजनीतिक दल, सरकार और जनता के बीच मध्यस्थ का कार्य भी करते हैं। राजनीतिक दल जनता को सक्रिय बनाने तथा उनका समर्थन प्राप्त कर, चुनावी जनसभा के माध्यम से अपनी नीतियों व भविष्य के कार्य को उजागर करते हैं।

प्रथम आम चुनाव के सन्दर्भ में निर्वाचन आयोग ने अपने प्रतिवेदन में कहा – '' भारत में वयस्क मताधिकार को स्वीकार करने का निश्चय वस्तुतः भारत के साधारण व्यक्ति तथा उसकी व्यावहारिकता बुद्धि में विश्वास का कार्य था और 1951–52 के प्रथम आम चुनाव में भारतीय जनता ने अपने आपको इस विश्वास के योग्य सिद्ध किया।''

EVM :- EVM का पूरा नाम–इलेक्ट्रानिक वोटिंग मशीन है। यह वर्ष 2000 से लेकर अब तक लगभग 10 लाख मतकेन्द्रों पर 113 राज्य विधान सभा के साधरण निर्वाचन और आम चुनाव वर्ष 2004, 2009 तथा 2014 यानी तीन लोकसभा निर्वाचन सफलतापूर्वक समान कराए गए हैं।

VVPAT वीवीपैट :– VVPAT वी वी पैट का पूरा नाम है – वोटर वेरीफाएबल पेपर ऑडिट ट्रेल है। यह एक स्वतंत्र प्रिंटर प्रणाली है जिसे इलेक्ट्रॉनिक वोटिंग मशीन से जोडा जाता है और इससे मतदाताओं को अपना मतदान बिल्कुल सही होने की पुष्टि करने में मदद मिलती है।

मशीनों का निर्माण :– ईवीएम और वीवीपैट मशीनों का निर्माण सार्वजनिक क्षेत्र के सिर्फ दो प्रतिष्ठित संस्थानों ईसीआईएल (इलेक्ट्रानिक्स कारपोरेशन ऑफ इंडिया लिमिटेड) और वीईएल (भारत इलेक्ट्रानिक्स लिमिटेड) में एक स्वतंत्र तकनीकी विशेषज्ञ समिति के तकनीकी विशेषज्ञों की देख–रेख और निर्वाचन आयोग के निरीक्षण में कराया जाता है ताकि इसके साथ किसी तरह की छेड़छाड़ नहीं की जा सके।

वीवीपैट का प्रयोग :– वीवीपैट मशीनों का इस्तेमाल 933 राज्य विधान सभा निर्वाचन क्षेत्रों और 18 संसदीय निर्वाचन क्षेत्रों में हुए निर्वाचनों में किया जा चुका है आज की तारीख 06 अक्टूबर 2018 तक वर्ष 2017–18 के दौरान सात राज्यों गोवा, हिमाचल प्रदेश, गुजरात, मेघालय, नागालैण्ड, त्रिपुरा और कर्नाटक में हुए साधारण विधानसभा निर्वाचनों में सभी मतदान केन्द्रों पर वी वी पैट

का इस्तेमाल किया गया है। वर्ष 2019 में होने वाले लोक सभा निर्वाचनों के साथ राज्य विधान सभाओं के लिए होने वाले आगामी निर्वाचनों के दौरान भी सभी मतदान केन्द्रों पर शत–प्रतिशत वीवीपैट युक्त ईवीएम का इस्तेमाल करने के लिए प्रतिबद्ध है। आवश्यकता के अनुसार वी वी पैट मशीनें उपलब्ध रहेंगी।

इलेक्ट्रानिक वोटिंग मशीन से लाभ :–

- ई वी एम से बूथ पर कब्जा करने की घटना खत्म हो गई और मतपत्रों की गिनती में देरी और खामियों को भी दूर करने में मदद मिलती है।
- ई वी एम मतगणना 03 से 06 घण्टों में पूरी हो जाती है, जबकि मतपत्र के समय में मतगणना 24 से 48 घण्टे से भी ज्यादा समय लगता था।
- इससे पहले, मतपत्र के समय में प्रत्येक विधान सभा निर्वाचन क्षेत्रों में बड़ी संख्या में मतपत्र अवैध हो जाते थे। कई चुनाव में अवैध मतों की संख्या जीतने के अंतर की मत संख्या से अधिक हुआ करती थी। अब ई वी एम के इस्तेमाल से कोई मत अवैध नहीं होता है।

वीवीपैट की वास्तविकता :–

1. मतदाता वीवीपैट की पर्ची को छू नहीं सकता हालांकि मतदाता को एक पारदर्शी स्क्रीन के पीछे पर्ची सात सेकेण्ड तक दिखती रहती है और आखिर में पर्ची वी वी पैट के मुहरबंद डिब्बे में चली जाती है।
2. इसमें इस्तेमाल किए जाने वाले थर्मल पेपर पर छपी हुई जानकारी 5 वर्षों से ज्यादा समय तक पठनीय रहती है।
3. वीवीपैट में कोई कैमरा नहीं होता है और यह मतदाता की फोटो नहीं खींच सकता है।
4. वीवीपैट मशीन के कारण मतदान रूक जाने के कुछ ही मामले सामने आए हैं। हालांकि, इस तरह की वी वी पैट मशीनों के प्रति स्थापन के लिए पर्याप्त रिजर्व की व्यवस्था की जाती है।

मतदाता सूची :–

मतदाता सूची बनाने का कार्य प्रत्येक वर्ष होता है। 01 जनवरी को 18 वर्ष की आयु प्राप्त कर चुके युवा नागरिकों के फोटो युक्त मतदाता पहचान पत्र बनाये जाते हैं। यह कार्य जनवरी से 02 महीने पहले से शुरू हो जाता है। यह कार्य जिला निर्वाचन अधिकारी के निर्देश पर शुरू होता है। मतदाता सूची में नाम जोड़ना, हटना तथा एक स्थान से दूसरे स्थान पर स्थानान्तरण का कार्य भी होता है। मतदाता पहचान पत्र में संशोधन का भी कार्य होता है। पहली बार मतदाता पहचान पत्र निशुल्क बनाया जाता है। दुबारा यदि नाम में, फोटो में गलती होने पर निर्वाचन आयोग द्वारा निर्धारित दरों पर शुल्क लिया जाता है। यह सब कार्य आनलाईन या ऑफलाईन ही किया जाता है। विधान सभा के आधार पर फोटो युक्त मतदाता सूचियों का डिजिटलाइजेशन भी किया जाता है। भारत निर्वाचन आयोग से सम्बन्धित जानकारी आयोग की वेबसाइट www.eci.nic.in में देखा जा सकता है।

मतदान व्यवहार का अध्ययन :–

भारतीय मतदाता पं0 जवाहर लाल नेहरू, इंदिरा गाँधी, राजीव गाँधी, अटल विहारी वाजपेई और श्री नरेन्द्र मोदी के नाम पर मत देते हैं, तो ब्रिटिश और अमरीकी मतदाता भी हैरल्ड विल्सन, माग्रेट थैचर, कैनेडी, निक्सन, रीगन और बुश के नाम पर ही मतदान करते हैं। लाखों–करोड़ों व्यक्तियों का मतदान तो सर्वत्र इसी रूप में होता रहा है और होता रहेगा। यह मतदान व्यवहार तो इस तथ्य को स्पष्ट करता है कि आज की परिस्थितियों में नेतृत्व का प्रश्न की सबसे अधिक महत्वूपर्ण हैं।

जनता की राजनीतिक जागरूकता का आकलन करते समय हमें इस तथ्य को दृष्टि में रखना होगा कि चुनाव के समय जनता के सामने जो उम्मीदवार, जो राजनीतिक दल और जो नेतृत्व होता है, जनता को उन्हीं में से चयन करना होता है। भारत के सामान्य जन में राजनीतिक–आर्थिक विषयों की शास्त्रीय व्याख्या कर पाने की सामर्थ्य भले ही न हो, सामान्य सूझबूझ और विवेक में वह न तो इस देश के तथाकथित बुद्धिजीवी वर्ग से पीछे है, और न ही किसी अन्य देश के सामान्य जन से पीछे है। अधकचरे अध्ययन और बौद्धिक अहं से पीडित व्यक्ति ही इस सम्बन्ध में शंका कर सकते हैं। वे जो कभी जनता से जुडे ही नहीं, जनता के बारे में क्या जानें ?

राज्य/संघ राज्य क्षेत्र का नाम राज्य	ईवीएम प्रयुक्त किए जाने वाले निर्वाचन वर्ष	राज्य में मतदान केंद्रों की संख्या संख्या
आंध्र प्रदेश	2004, 2009, 2014	43129
अरुणाचल प्रदेश	2004,2009, 2014	2191
असम	2001, 2006, 2011, 2016	27267
बिहार	2000, 2005, 2010, 2015	62780
छत्तीसगढ़	2000, 2003, 2008, 2013	23411
गोवा	2002, 2007, 2012, 2017	1642
गुजरात	2002, 2007; 2012, 2017	50264
हरियाणा	2000, 2005, 2009, 2014	17046
हिमाचल प्रदेश	2003, 2007, 2012, 2017	4749
जम्मू और कश्मीर	2000, 2004, 2009, 2014	10641
झारखंड	2000, 2005, 2010, 2014	29424
कर्नाटक	2004, 2008, 2013, 2018	56696
केरल	2001, 2006, 2011, 2016	24460
मध्य प्रदेश	2003, 2008, 2013	65200
महाराष्ट्र	2004, 2009, 2014	91451
मणिपुर	2002, 2007, 2012, 2017	2817
मेघालय	2003, 2008, 2013, 2018	3082
मिजोरम	2003, 2008, 2013	1148
नागालैंड	2003, 2008, 2013, 2018	2194
ओडिशा	2000, 2004, 2009, 2014	35896
पंजाब	2002, 2007, 2012, 2017	23089
राजस्थान	2003, 2008, 2013	51227
सिक्किम	2004, 2009, 2014	549
तमिलनाडु	2001, 2006, 2011, 2016	65972
त्रिपुरा	2003, 2008, 2013, 2018	3214
उत्तर प्रदेश	2002, 2007, 2012, 2017	159957
उत्तराखंड	2002, 2007, 2012, 2017	10870
पश्चिम बंगाल	2001, 2006, 2011, 2017	77354
दिल्ली	2003, 2008, 2011, 2017	13418
पुदुचेरी	2001, 2006, 2011, 2016	913

निष्कर्ष :–

उत्तराखण्ड़ राज्य गठन के वाद यहाँ प्रथम विधान सभा चुनाव 2002 से लेकर अब तक के सभी चुनावों में इलेक्ट्रॉनिक वोटिंग मशीन का प्रयोग हुआ है। इससे पहले चुनाव मतपत्र के माध्यम से होते थे। भारत निर्वाचन आयोग द्वारा मतदाताओं का लोकतंत्र में विश्वास बनाये रखने के लिए EVM के साथ VVPAT को जोडा है। आगामी होने वाले लोकसभा चुनाव 2019 के मतदान में VVPAT का इस्तेमाल पहली बार हो रहा है। मतदाताओं का मतदान के प्रति उत्साह बना रहे और सभी मतदाता अपने मत का प्रयोग करें। नये मतदाताओं में मतदान के प्रति उत्साह सबसे ज्यादा रहता है। नये मतदाता पढ़े–लिखे युवा है। युवा मतदान के प्रति जागरूक है। वर्तमान समय में समाचार पत्र, मोबाईल तथा अन्य माध्यमों से चुनाव प्रचार होता है। एक मतदाता चुनाव सम्बन्धी सूचना दूसरे मतदाता को दूरसंचार के माध्यम से भेजता है। वर्तमान समय में प्रत्येक मतदाता के पास मोबाईल है, जिसके माध्यम से वह चुनाव सम्बन्धी जानकारी प्राप्त करता है। मतदान व्यवहार राष्ट्रीय, राज्यीय तथा स्थानीय मुद्दों से प्रभावित होता है विधान सभा चुनाव स्थानीय मुद्दों पर तथा लोकसभा चुनाव राष्ट्रीय मुद्दों पर ही लडे जाते हैं।

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विश्व कवि तुलसी और ''रामचरितमानस''

डा0 शुभा माहेश्वरी

एसो0प्रो0 हिन्दी ,

साहू जैन कालेज, नजीबाबाद

विद्वज्जन के साहित्य व जनसाहित्य में भेद होता है । क्योंकि समाज में दो प्रकार के मनुष्य होते हैं –एक वेत्ता और दूसरे साधारण। इन दोनों वर्गो की परस्पर भिन्नता का आधार ज्ञान की सीमा होता है । विद्वानों का साहित्य गम्भीर ,गूढ़ तथा मनन–चिन्तन करने वाला होता है जबकि जन साहित्य में सहज अभिव्यंजना होती है । उसमें गम्भीरता तथा परिष्कार की आवश्यकता नही होती। इसीलिए सृजन साहित्य तथा जन साहित्य एक दूसरे के विपरीत होते हैं । दोनों वर्गो की ग्रहणीयता अपने–अपने ज्ञान के आधार पर होती है । ऐसे रचनाकार बहुत कम होते है जिनकी रचना दोनों को समान रूप से प्रिय हो । ऐसा रचनाकार विश्वकवि की श्रेणी में आता है । इस दृष्टि से रामचरितमानस विश्वकाव्य और तुलसीदास विश्वकवि के रूप में निर्विवाद रूप से प्रतिष्ठित हैं । कुछ ऐसी विशिष्टताएं है जिसके कारण वे विश्वकवि कहलाते है ।

सबसे बड़ी विशेषता तो यह है कि "हितेन सह सहित इति साहित्यं" की उक्ति को सही चरितार्थ करने वाली साहित्यिक कृति है "रामचरितमानस"। तुलसी के लिए वही वाणी, वही कीर्ति और वही भव्यता अच्छी है जिसके सबका हित होता हो –

"कीरति भनति भूति भलि सोई।
सुरसरि सम सब कहँ हित होई । ''

तुलसी के पास कलम का ऐश्वर्य था और वह ऐश्वर्य विगत पाँच शताब्दियों से मानव मात्र का हित कर रहा है । उन्होनें "रामचरित मानस" में राम–चरित्र द्वारा सम्पूर्ण विश्व को ऐसी दृष्टि प्रदान की कि उनका यह ग्रन्थ आज तक समस्त मानव –मूल्यों की आधारशिला बना हुआ है । आचार्य रामचंद्र शुक्ल ने ठीक ही लिखा है – "उनकी वाणी के प्रभाव से आज भी जनमानस अवसर के अनुसार सौन्दर्य पर मुग्ध होता है ,सन्मार्ग पर पैर रखता है ,विपत्ति में धैर्य धारण करता है ,मानव जीवन के महत्व का अनुभव करता है । "नानापुराण निगमागम" के साथ तुलसी की मौलिकता उनके "क्वचिदन्यतोपि" में है । उनके राम एक ओर भारतीय व पाश्चात्य दार्शनिकों ,चिन्तकों तथा विद्वानों के पूजनीय हैं तो दूसरी ओर विश्वव्यापी लोकमानस के आराध्य देव बन गए हैं ।

विश्वकवि बनने का एक बड़ा कारण है उनकी भक्ति–पद्धति । भातरवर्ष में धर्म,साहित्य और समाज तीनों की साधना प्राचीन काल से रही है । सभी प्रकार की साधना में गृहस्थ–जीवन को सर्वाधिक महत्व दिया गया । अन्य तीनों आश्रम ग्रहस्थाश्रम के आश्रय से ही चलते रहें है । भारतीय साधना की सबसे बड़ी विशेषता यह रही कि गृहस्थ जीवन की गृह साधना को केवल लौकिक साधना न रखकर लोकोत्तर साधना तक पहुँचा दिया गया । प्रवृत्ति मार्ग पर चलते हुए धीरे–धीरे निवृत्ति मार्ग पर स्वतः ही पहुँचा जाता था । लेकिन मध्यकाल में विदेशी संस्कृति के प्रभाव से विघ्न पड़ने लगे तथा विदेशी संस्कृति के आयात से पहले निर्गुण संस्कृति की ही व्यवस्था हुई । निर्गुण ब्रहम की उपासना ही केन्द्र में आने से निवृत्ति मार्ग प्रमुख हो गया तथा प्रवृत्ति की ओर विकर्षण होने लगा। गृहस्थ जीवन की साधना में कमी होने लगी जबकि भारतीय भक्ति मार्ग प्रवृत्ति का है । उसके मार्ग पर चलने से निवृत्ति स्वतः ही हो जाती है ।

वैदिक काल में भक्ति, ज्ञान तथा कर्म ये तीनों प्रकार की साधनाएं प्रचलन में थी । इनमें ज्ञान व कर्म की साधना को कठोर तथा भक्ति की साधना को सरल माना जाता था । लेकिन मध्यकाल में निर्गुण भक्ति के प्रभाव के कारण निवृत्ति मार्ग का प्रचलन अधिक होने लगा । तब तुलसी को कहना पड़ा – " राम नाम का मरम है आना ।
दशरथ सुत तिहुँ लोक बखाना । "

भारतीय जन मानस पर इसका इतना अधिक प्रभाव पड़ा कि अवतारवाद में विश्वास होने लगा । निर्गुण ब्रहम पर आस्था के कारण जिस हानि (निवृत्ति मार्ग की ओर प्रवृत्त होने)की आशंका गृहस्थ जीवन पर पड़ने की होने लगी थी ,उसे दूर करने का प्रयास तुलसी द्वारा हुआ ।

वास्तव में तुलसी ने प्रवृत्ति तथा निवृत्ति के मध्य मार्ग को स्वीकार कर भक्ति मार्ग को प्रशस्त किया प्रवृत्ति व निवृत्ति दोनों में समन्वयात्मक दृष्टिकोण प्रस्तुत कर उसे सर्वसुलभ बना दिया ऐसा कि छोटे से छोटा साधक भी उसे अपना सके । इतना सुगम्य और आवश्यक कि जैसे अन्न–जल प्रतिदिन आवश्यक है ,उसी प्रकार भक्ति भी प्रतिदिन जरूरी है । गरीब से गरीब व्यक्ति भी सरलता से प्राप्त कर सकता है । शूद्र ,चाण्डाल, स्त्री आदि सभी राम भक्ति के अधिकारी हैं ।

"घर कीन्हे घर जात हैं घर छॉडे घर जाइ ,
तुलसी घर बन बीच ही रामप्रेमपुर छाइ ।
घर व वन अर्थात निवृति और प्रवृति के मध्य राम–प्रेम के नगर में सबको रहना चाहिए ।

निवृत्ति मार्ग में प्रवृत्त होने से सांसारिकता छूट जाती है तथा प्रवृति मार्ग में लीन होने से पारलौकिक मार्ग । इसलिए दोनों में समन्वय कर ऐसा मार्ग सर्वसाधारण के लिए उपलब्ध करा दिया कि वह सर्वमान्य हो गया ।

तुलसी के राम मानवीय गुणों से विभूषित है । इसीलिए भक्ति की अवधारणा मानव धर्म के रूप में हुई है । "विप्र धेनु सुर संत हित, लीन्ह मनुज अवतार" देवत्व की मानवीय प्रतिष्ठा और फिर विचार जन्य ज्ञान से उसकी प्राप्ति की सरस व्याख्या ने तुलसी के काव्य को सार्वभौमिक बना दिया । तुलसी का रामचरित्र व्यक्ति चरित् नहीं ,वह विश्व चरित है । राम की कहानी मानव–जीवन की कहानी है जो रातदिन प्रतिपल हमारे जीवन में चलती रहती है । देवत्व और मनुष्यता का इतना अनुपम सम्मिश्रण विश्व की किसी भाषा की किसी कृति में नहीं मिलता । आज की स्वार्थ परायण वस्तुवादी सृष्टि में एकमात्र रक्षा कवच है–मानव बने रहने का प्रयास। विश्व में प्राणी मात्र को समान समझना ,समस्त जीव धारियों को कल्याण की भावना से प्रेरित करना तथा सत्य की उपासना करना ही मानव का परमादर्श है । इसीलिए जीवन का चरम पुरूषार्थ रामभक्ति है । ये राम भक्ति मिलती है निश्छल प्रेम से । निश्छल प्रेम करने का ज्ञान दिया विश्व कवि तुलसी ने ।

महान कृतिकार की प्रथम अनिवार्यता उसका निजी अनुभव होता है । तुलसी की निजता का क्षेत्र अति विस्तृत था जिसे उन्होनें अपने काव्य में स्पष्टतः रेखांकित किया । तुलसी के काव्य में इसीलिए सामाजिकता गहरे समाई है और वह सामाजिकता कवि की निजता में समाविष्ट है । इसीलिए वह आरोपित न होकर कवि की आचार साधना का एक घटक बन गई है । वैयक्तिकता और सामाजिकता एक दूसरे में अन्तर्निहत हैं ,अन्तर्लिप्त हैं । तुलसी के समय समाज में निहित विश्रंखलता का स्पष्ट संकेत "मानस" में मिलता है । सर्वकवि की दृष्टि जितनी व्यापक व सर्वग्राही होनी चाहिए वैसी तुलसी की थी । समाज के विकृत स्वरूप पर उन्होनें पर्याप्त लिखा । अनेक उदाहरण ऐसे हैं जो जीविका विहीन व्यक्ति की दुस्सह मार्मिक कठिनाईयों ,समाज द्वारा भोगी मर्मान्तक उपेक्षा , आत्म संघर्ष आदि अनेक स्थितियों का बिम्ब हैं । तुलसी सर्वहारा वर्ग के "कृषगात ललात जो रोटिन को धखात धरें खुरपा खरिया " के प्रतीक बन गए हैं । वे आम आदमी की पीड़ा के महान उद्गाता हैं । उन्होने अपने काव्य–कौशल द्वारा उस पीड़ा को अपने काव्य की भावधारा में पूर्ण समाहित कर लिया है । समाज के उद्धार के उपाय भी उन्होनें बताए हैं । निषाद जैसे दीनहीन को गले लगाना ,अहिल्या जैसी नारी का उद्धार ,शबरी जैसी तथाकथित तुच्छजाति की स्त्री के यहाँ प्रीतिपूर्वक बेर खाना आदि अनेक कथा प्रसंगों में तुलसी की जग–सुधार–भावना परिलक्षित है । तुलसी को यह विश्वास था कि राम की भक्ति के बिना समाज का उद्धार नही हो सकता । राम के इसी स्वरूप को उन्होनें जन–जन तक उठाने का बीड़ा उठाया और उसमें अद्भुत सफलता भी मिली ।

तुलसी का काव्य अपने समय का उच्चतम मानवतावादी काव्य है, वह भोगवादी सम्यता का विलोम है । तुलसी के राम गहरी जीवन मूल्य चेतना से सम्पृक्त हैं ,इसी से तुलसी के "मानस" ने ऐसा कर्मपूर्ण चारित्रिक विस्तार राम को प्रदान किया कि उन्हें केवल भारतीय समाज की ही नही वरन् सम्पूर्ण जगत की सामाजिक स्वीकृति प्राप्त हुई । अपने शील और पराक्रम के कारण समाज में जैसी लोकपूजा राम को मिली,वैसी संसार में किसी अन्य को शायद ही मिली हो । भारतीय समाज में उन्होने जीवन का जो आदर्श रखा ,स्नेह और सेवा के जिस पथ का अनुगमन किया, उसका महत्व आज भी समूचे भारत में अुण्ण बना हुआ है । मर्यादाओं में रहते हुए अपने जीवन चरित्र से जीवन की अगणित घटनाओं से जो पुरूषोत्तम प्रमाणित हुआ है उस राम ने "मानस" को भारत का ही नहीं पूरे विश्व का मार्गदर्शक ग्रन्थ बना दिया है । यह मात्र हिन्दुओं का ,धार्मिक ग्रन्थ न रहकर विश्वकल्याणकारी मानवीय ग्रन्थ बन गया है । "मानस ऐसा दर्पण है जिसमें सभी को अपना प्रतिबिम्ब दिखाई पड़ता है । " दर्पणकार तुलसी पर किसी का एकाधिकार नही

वह पूरे विश्व की विभूति है ! श्रीमती कमलारत्नम के अनुसार –"तुलसी किसी व्यक्ति या देह धारी जीव का नाम नही है ,तुलसी एक विश्वास है ,एक आस्था है ।"

भारतीय काव्य शास्त्र में छः प्रमुख मानदंड निर्धारित किए गए हैं– अलंकार ,रीति, वक्रोत्ति, ध्वनि, रस, औचित्य । तुलसी ने इस सब सिद्धान्तों का समन्वय सैद्धान्तिक रूप में भी किया तथा प्रयोगात्मक रूप में भी किया । इन सभी काव्यात्मक सौन्दर्य तत्वों से चक्र "रामचरित मानस" अपनी प्रबन्धात्मकता मार्मिक प्रसंग विधान, सांस्कृतिक गरिमा ,गंभीर भाव प्रवाह ,आर्थिक प्रसंग विधान ,छंद एवं अलंकार नियोजना तथा लोक संस्कृति एवं जीवन मूल्यों के मनोवैज्ञानिक पक्ष का श्रेष्ठ रूप में प्रस्तुतिकरण के साथ परिपूर्ण है।

विश्व कवि तभी होता है जब उसकी भाषा सर्वग्राही हो । "रामचरित मानस" अवधी भाषा में लिखी गई । यह भाषा पूरे उत्तर प्रदेश की बोली भी नही है लेकिन उसके मानस ने अवधी क्षेत्र की ही नहीं ,समस्त भारतीय भाषाओं की सीमा पर की है । भारत में ही नहीं,भारत के बाहर भी पूरे विश्व में कोई समृद्ध भाषा ऐसी नहीं जिसमें गद्य–पद्य किसी रूप में मानस अनूदित न हुआ हो या कहा जा जाता हो । अकेले रूस जैसे साम्यवादी देश में "मानस" की लाखों प्रतियॉ बिक चुकी हैं । मैक्समूलर ,जोन्स, कीथ ,ग्रिफिथ ,कामिल बुल्के ,वाराव्रिमोव सरीखे अनेक उत्कृष्ठ विदेशी विद्धान तुलसी के सृजन स्वरों पर मुग्ध होकर अपनी जीवन दिशा बदल चुके हैं । अनेक एशियाई देशों की संस्कृति पर "मानस" का गहरा प्रभाव उनके दैनिक क्रिया–कलापों पर परिलक्षित होता है । जावा ,बाली,सुमात्रा द्वीपों का जनजीवन "मानस" से पूर्णतः प्रभावित है । उनके लोक–नृत्यों ,लोकगीतों का आधार राम–कथा है । अफ्रीका के पूर्वी भागों में रहने वाली जूलू जाति की लोक कलाओं पर "मानस" का प्रभाव बहुत स्पष्ट रूप से देखा जा सकता है। बर्लिन लोक नाट्य में आज तुलसी रामकथा के प्रभाव चिन्ह बहुत गहरे दिखाई देते हैं । मारीशस ,फिजी, सूरीराम,ट्रिनिडाड और ग्याना के भारतवंशियों की आस्था का सम्बल "मानस" ही है । इसके अतिरिक्त ब्रिटेन,अमेरिका ,कनाडा ,हालैण्ड ,थाईलैण्ड, वर्मा,मलेशिया, ,हॉगकांग ,सिंगापुर आदि के भारतवंशी भी "मानस" के राम पर गहरी आस्था रखते हैं । राम–चेतना के विश्वव्यापी विस्तार में "मानस" की भूमि का निर्विवाद है । इस तरह तुलसी ,राम और विश्व–तीनों एक दूसरे में ओत–प्रोत हैं ।

साहित्य–शोध कार्य की दृष्टि से भी तुलसी विश्व कवि प्रमाणित होते हैं । हिन्दी में सर्वप्रथम 1910 में इटली वासी डा0 टेसीटोरी ने "मानस" और वाल्मीकि रामायण का तुलनात्मक अध्ययन विषय पर डाक्टरेट प्राप्त की थी । दूसरा शोध ग्रन्थ लंदन में 1918 में कार्पेटर ने तुलसी दर्शन पर प्रस्तुत किया था । तब से तुलसी के व्यक्तित्व और कृतित्व को लेकर देश–विदेश की अनेकानेक भाषाओं में अनेक समीक्षात्मक ग्रन्थ लिखे जा चुके है। हिन्दी में तुलसी विषयक 400 से अधिक शोध प्रबंधो पर उपाधि दी जा चुकी है । इतना अध्ययन और मूल्यांकन विश्व में किसी अन्य कवि पर नहीं हुआ । यही कारण है कि महाकाव्य रामचरितमानस को विश्व के 100 सर्वश्रेष्ठ लोकप्रिय काव्यों में 46वॉ स्थान दिया गया ।

"मानस" मूल्यों के प्रति हमारी अटूट अनवरत आस्था सदा बनी रहेगी । बुराई का प्रतिकार करने के लिए ,रावण वध के लिए राममय होने की आवश्यकता सदा बनी रहेगी तथा इस प्रकार तुलसी भी विश्व में कभी अप्रासंगिक नहीं होगें ।

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पुरुष वर्चस्व– महिलाओं की राजनैतिक सहभागिता का प्रमुख अवरोधक

डा0 कुसुम कुशवाहा

एसो0 प्रो0,राजनीति शास्त्र विभाग

साहू जैन कालेज, नजीबाबाद (जि0 बिजनौर)

भारतीय समाज में महिलाओं की स्थिति लम्बे समय तक चिन्तन का विषय रही है लेकिन महिलाओं की समस्याओं को उनके विशिष्ट सन्दर्भ तथा पुरूष प्रधान समाज के परिपेक्ष्य में देखने के प्रयास बहुत बाद में हुए । ऐसा प्रमुख रूप से सत्तर के दशक में हुए महिला आन्दोलनों के कारण संभव हुआ । इससे पूर्व उन्नीसवीं शताब्दि के सुधारवादी आन्दोलनों में बाल विवाह,बेमेल विवाह, बहुपति विवाह तथा सती प्रथा जैसी कुरीतियों का विरोध किया गया और महिलाओं की शिक्षा एवं विधवा विवाह जैसे उपायों को प्रोत्साहित किया गया । राष्ट्रीय आन्दोलन में महिलाओं ने सक्रियता से भाग लिया तथा महिलाओं की क्षमताओं का प्रतिनिधित्व सक्षम, ओजमयी महिला स्वतन्त्रता सेनानियों द्वारा किया गया । महिलाओं को संविधान ने समान अधिकार और अवसर प्रदान किये । अनेक महिलाओं ने देश के उच्च पदों के दायित्वों का सफल निर्वहन करके अपनी पहचान की छाप छोड़ी ,फिर भी देश की आधी आबादी की अधिकांश समस्यायें ज्यों कि त्यों बनी हुई हैं । आज महिलाओं में शिक्षा और रोजगार के प्रसार ,आर्थिक स्थिति में सुधार तथा राजनैतिक और प्रशासनिक पदों पर महिलाओं की सीधी पहुॅच के दावे किये जा रहे हैं किन्तु यह भी सच है कि महिलाओं का शिक्षा स्तर बहुत निम्न है ,स्वास्थ्य की स्थिति शोचनीय है, आत्मनिर्भरता का अभाव है तथा हर स्तर पर निर्णयकारिता में महिलाओं की भूमिका नगण्य ही है । अबाधित कन्या भ्रूण हत्या ने लिंग अनुपात में असमानता को निरन्तर बढ़ाकर महिलाओं के अस्तित्व को ही खतरे में डाल दिया है। दहेज की समस्या आज भी अनियन्त्रित है । यौन उत्पीडन तथा हिंसा की बढ़ती घटनाओं ने महिलाओं में असुरक्षा की भावना को बढ़ाया है । इस प्रकार एक ओर विकास सम्बन्धीं दावे और महिलाओं के पिछड़ेपन सम्बन्धी तथ्यों के बीच वे व्यक्तिगत और आर्थिक–सामाजिक अवरोधक हैं जो विकास के प्रभावों को निचले स्तर पर महिलाओं तक नहीं पहुंचने देते हैं । ये अवरोधक लैंगिक भेदभाव और असमानता को संस्थात्मक एवं स्वीकार्य बनाये हुए हैं । इन बहुआयामी अवरोधकों के सदियों से समाज में बने रहने के पीछे पितृसत्तात्मक समाज की भूमिका असंदिग्ध रूप से नियन्त्रणकारी दिखाई देतीं हैं । धार्मिक विश्वासों, संस्कारों और अनुष्ठानों ने पुरूष वर्चस्व को समाज में मजबूत बनाया है । पुरूष वर्चस्व ने महिलाओं की पहचान को अपने मानकों तथा दृष्टि से रचा और महिलाओं की भूमिका को अपनी आवश्यकताओं के अनुकूल परिभाषित किया । विकास के साधनों एवं अवसरों तक उसकी पहुॅच को सीमित करने के लिए ही सम्पत्ति ,उत्तराधिकार ,शिक्षा तथा धार्मिक अनुष्ठानों आदि में उसकी स्थिति हेय रखी गई । परिवार, समाज एवं राज्य स्तर पर निर्णकारिता और नियन्त्रण के सूत्र उनके हाथ में नही रहे । यहाँ तक कि उसके जीवन पर वांछित और अवांछित होने के प्रश्न चिन्ह लगाकर कभी भ्रूण या नवजात कन्या के रूप में ही उसे मार दिया जाता तो कभी दहेज के लिए । विधवा के रूप में वह पुरूष उत्तराधिकारी के लिए चुनौती तथा परिवार के लिए आर्थिक बोझ न बन सके अतः सती के रूप में महिमा मंडित कर उसे जीवित जला दिया जाता । पुरूष वर्चस्व की इसी प्रवृत्ति ने समाज को महिलाओं की आवश्यकताओं ,अपेक्षाओं तथा विकास के प्रति संवेदनशील नही बनने दिया । यहां यह प्रश्न उठाया जा सकता है कि यदि समाज का निर्माण एक विशेष ढर्रे पर हो चुका है तो उसका वर्तमान तथा महिलाओं के विकास के सम्बन्ध में क्या महत्व है ? वास्तव में पुरूष वर्चस्व स्थापित होने की प्रक्रिया में जिन दशाओं ने लैंगिक असमानता को संस्थात्मक बनाया उन्हीं दशाओं को महिलाओं के पक्ष में बनाना होगा ।

महिलाओं के विकास एवं अधिकार सम्पन्नता के एक संकेतक के रूप में यदि उनकी राजनैतिक सहभागिता का मूल्यांकन करें तो पायेंगे कि स्वतन्त्रता के बाद संवैधानिक रूप से राजनैतिक सहभागिता के समान अवसर होने पर भी राजनैतिक व्यवस्था में महिलाओं की भर्ती एवं भागीदारी हाशिये पर दिखाई देती है । इसके पीछे अनेक कारण हैं जो व्यक्तिगत स्तर पर महिलाओं को राजनैतिक रूप से निष्क्रिय बनाते है। आर्थिक–सामाजिक कारणों से भी महिलाओं की सहभागिता नकारात्मक रूप से प्रभावित होती

है, परन्तु यदि ध्यान से देखें तो इन सभी व्यक्तिगत, सामाजिक, आर्थिक और राजनैतिक अवरोधकों को पुरूष वर्चस्व की प्रवृत्ति ने ही समाज में आरोपित और पोषित किया है।

व्यक्तिगत आधार पर महिलाओं में व्याप्त राजनीति के प्रति अरूचि तथा अपने राजनैतिक दायित्वों के प्रति उदासीनता का कारण उनका इसी प्रकार का सामाजीकरण है । उन्हें प्रारम्भ से ही पुरूष प्रधान समाज में घर की चाहरदीवारी के अन्दर के कार्यो के लिए तैयार किया जाता है और यह राजनीति के प्रति उदासीन बनाता है । वहीं किसी भी राजनैतिक या संगठनात्मक गतिविधि में भाग लेने का निर्णय भी अधिकाधिक रूप में पुरूषों का होता है । यहाँ यह भी उल्लेखनीय है कि जिन परिवारों में पुरूष सदस्य सक्रिय रूप से राजनीति में भाग लेते हैं वहाँ यह आवश्यक नहीं कि उस परिवार की महिलाओं को भी सक्रिय राजनीति में भाग लेने का अवसर प्राप्त हो। स्थानीय स्तर की राजनीति में इस वर्चस्व को अधिक स्पष्ट रूप से अनुभव किया जा सकता है । स्थानीय निकायों में चुनी गई महिला प्रतिनिधियों ,प्रधानों और अध्यक्षों की कार्य निष्पादन की स्थिति इसके उदाहरण हैं । एक तो सर्वप्रथम महिलाओं के चुनावों में खड़े होने का निर्णय ही पुरूषों का होता है ,चुनाव प्रचार के दौरान सम्पर्क आदि अधिकाधिक कार्य पुरूषों द्वारा ही किया जाता है । चुनावों के बाद परिवार के पुरूषों–पिता ,पति और पुत्र द्वारा ही इन महिला प्रतिनिधियों के विभिन्न अधिकारों के उपयोग का प्रयास किया जाता हैं चाहे ग्राम पंचायत ,ब्लॉक या जिला परिषद की बैठकें हों या उनके द्वारा लिये गये निर्णय ,महिलाओं की उपस्थिति बहुत कम होती है । वाद विवाद में वे या तो भाग नहीं लेतीं या कम ही हस्तक्षेप करती हैं । महिलाओं से सम्बन्धित समस्याओं के निराकरण में तत्परता दिखाई नहीं देती । यद्यपि लगातार बैठकों में जाने, चुनाव लड़ने तथा पंचायतों की कार्यवाही को देखने के कारण महिलाओं की भागीदारी में सक्रियता आयी है फिर भी पुरूष वर्चस्व इसे बाधित करने का दुस्साहस करता ही हैं ।

महिलाओं की राजनैतिक सहभागिता को पुरूष वर्चस्व आर्थिक रूप में भी प्रभावित करता है अधिकांशतः महिलायें आर्थिक रूप से निर्भर हैं । यद्यपि उनके द्वारा कृषि कार्यो ,उद्यम या नौकरी करके आय अर्जित की जाती है किन्तु निर्णयकारिता में भूमिका न होने के कारण वे प्रायः सक्रिय राजनीति में तब तक भाग नहीं ले पाती जब तक परिवार के सदस्यों की स्वीकृति उन्हें प्राप्त न हो । प्रायः उन्हे यह स्वीकृति उसी स्थिति में मिलती है जबकि वे या तो पुरूषों के वर्चस्व के लिए किसी प्रकार की चुनौती या असुविधाजनक न हो या पुरूषों के वर्चस्व को और अधिक दृढ़ता से स्थापित करने में सहायक हों । इसके विपरीत पुरूषों की राजनैतिक सहभागिता पर महिलाओं का कोई नियन्त्रण नहीं होता है। सार्वजनिक बैठकों ,प्रर्दशनों , रैलियों, चुनाव प्रचार आदि में पुरूष वर्चस्व स्पष्ट दिखाई देता है। सार्वजनिक जीवन के अनुभवों से वंचित होने के कारण महिलाओं को राजनैतिक प्रशिक्षण प्राप्त नहीं हो पाता तथा वे आत्मविश्वास न होने के कारण स्वतः प्रेरित तथा स्वतन्त्र निर्णय नही ले पाती । यह केवल निम्नवर्गीय महिलाओं की स्थिति नही हैं । धनोर्पाजन करने वाली महिलायें भी परिवार में आर्थिक साधनों के प्रयोग या परिवार की प्राथमिकताओं के सम्बन्ध में निर्णयकारिता से जुड़ी नहीं है । चुनावों में पैसा व्यय करने जैसे निर्णय तो पुरूषों द्वारा ही किये जाते है ।

राजनैतिक दृष्टि से भी पुरूष वर्चस्व महिलाओं की राजनैतिक सहभागिता में प्रमुख अवरोधक है । संवैधानिक दृष्टि से भी महिलाओं को राजनैतिक व्यवस्था के हर स्तर एवं गतिविधि में पुरूषों के समान अधिकार प्राप्त हैं । लेकिन राजनैतिक नेतृत्व से लेकर प्रशासनिक पदों तक महिलाओं की उपस्थिति नगण्य दिखाई देती है । महिला कर्मियों की दृष्टि से केन्द्रीय सरकार में 7 प्रतिशत ,राज्य सरकारों में 18 प्रतिशत तथा स्थानीय निकायों में 26 प्रतिशत महिलायें कार्यरत हैं । राजनैतिक नेतृत्व की दृष्टि से यद्यपि 73वें तथा 74वें संवैधानिक संशोधनों ने स्थानीय निकायों में 33 प्रतिशत स्थान महिलाओं के लिए सुरक्षित किये हैं, किन्तु केन्द्रीय सरकार और राज्य सरकारों के क्रमशः संसद और विधानमण्डलों में महिलाओं का प्रतिनिधित्व बहुत कम है । यद्यपि यह संख्या उतार चढ़ाव के साथ निरन्तर बढ़ी है फिर भी महिलाओ की संख्या ने 2004 तक कुल सांसदों के 10 प्रतिशत का आंकड़ा नही छुआ था।

महिला सांसदो के कुल प्रतिशत के उतार चढ़ाव को निम्न तालिका में देखा जा सकता हैं ।

लोकसभा	चुनाव	कुल सीट जिन पर चुनाव हुआ	कुल सीटे जिन पर महिलायें विजयी हुई
10 वी लोकसभा	1991	509	36
11 वी लोकसभा	1996	541	40
12 वी लोकसभा	1998	545	48
13 वी लोकसभा	1999	543	48
14 वी लोकसभा	2004	543	45
15 वी लोकसभा	2009	543	59
16 वी लोकसभा	2014	543	61

स्रोत : भारत चुनाव आयोग, सांख्यिकी रिपोर्ट –2018

लोकसभा चुनावो में महिलाओं को प्रतिशत पर यदि दृष्टिपात करें तो वह अत्यन्त क्षीण दिखाई देता है–

लोकसभा चुनाव	विजयी महिलाओं का प्रतिशत
1952	4.4
1957	5.4
1962	6.7
1967	5.9
1971	4.2
1977	3.4
1980	5.1
1984	8.1
1989	5.3
1991	7.0
1996	7.4
1998	8.1
1999	8.8
2004	8.1
2009	10.9
2014	11.2

स्रोत : भारत चुनाव आयोग, सांख्यिकी रिपोर्ट –2018

इसका प्रमुख कारण पुरूष प्रधान राजनीति का होना है । राजनैतिक दलों की प्रारम्भिक सदस्यता पुरूष प्रधान है और अधिकांश राजनैतिक दलों द्वारा महिला उम्मीदवारों को चुनावों में नहीं खड़ा किया जाता । जबकि महिला उम्मीदवार चुनावों में पुरूष उम्मीदवारों

की तुलना में अधिक सफल होती है तथा अधिक प्रतिशत में चुनकर लोकप्रिय सदन में आती है । उदाहरण के लिए 1971 के लोकसभा चुनावों में खड़ी हुई महिला उम्मीदवारों ने चुनावों में पुरूष उम्मीदवारों की तुलना में अधिक सफलता प्राप्त की तथा अधिक प्रतिशत में चुनकर लोकप्रिय सदन में आयी । उदाहरण के लिए 1971 के लोकसभा चुनावों में खड़ी हुई महिला उम्मीदवारों में चुनी गई महिलाओं का प्रतिशत 24.4 था जबकि पुरूषों का 18.5 प्रतिशत रहा । 1977 में विजयी महिलाओं का प्रतिशत 27.1 तथा पुरूषों का 22.1 प्रतिशत रहा । 1980 में महिलाओं का 19.7 प्रतिशत तथा पुरूषों का 11.5 प्रतिशत ,1984 में महिलाओं का 25.6 प्रतिशत ,तथा पुरूषों का 9.2 प्रतिशत ,1989 में महिलायें 13.6 प्रतिशत तथा पुरूष 8.4 प्रतिशत ,1991 में महिलायें 11.4 प्रतिशत पुरूष 5.8 प्रतिशत ,1996 में महिलायें 6.7 प्रतिशत तथा पुरूष 11.2 प्रतिशत तथा 1999 में 17.2 प्रतिशत महिलायें तथा 11.3 प्रतिशत पुरूष विजयी रहें । पुरूषों की तुलना में चुनावों में निरन्तर तथा अधिक प्रतिशत में विजयी होने के बावजूद राजनैतिक दलों द्वारा महिला उम्मीदवारों को बहुत कम मात्रा में खड़ा किया जाता है ।

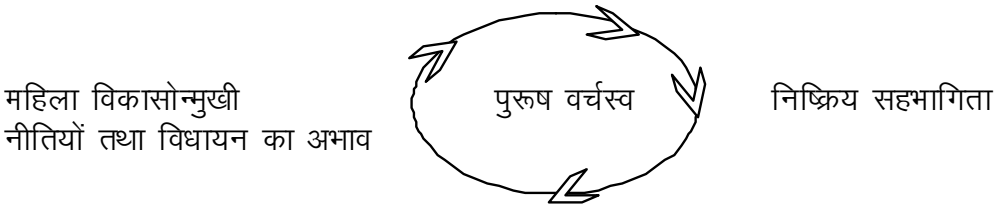
2014 के लोकसभा चुनावों में 543 सीटों पर हुए चुनाव में कुल महिला उम्मीदवारों की संख्या 668 रही जिसमें से कुल 62 महिलायें विजयी हुईं ।

विभिन्न राष्ट्रीय राजनैतिक दलों द्वारा महिलाओं को लोकसभा चुनाव 2014 में दिये गये स्थान तथा विजय प्रतिशत इस प्रकार रहा ।

राष्ट्रीय राजनैतिक दल	महिला उम्मीदवार	विजयी महिला उम्मीदवारों का प्रतिशत	महिला द्वारा प्राप्त वोट प्रतिशत
भारतीय जनता पार्टी	38	78.95	2.17
बहुजन समाज पार्टी	27	....	0.22
कम्युनिस्ट पार्टी ऑफ इंडिया	06	....	0.02
कम्युनिस्ट पार्टी (मार्क्सवादी)	11	9.09	0.33
भारतीय कांग्रेस पार्टी	60	6.67	1.67
राष्ट्रवादी कांग्रस पार्टी	04	0.25	0.4
योग	146	24.66	4.54

मतदाता के रूप में महिलाओं की सहभागिता निश्चित रूप से उत्साहवर्धक रही है। 1962 के लोक सभा चुनावों में यह 46.6 प्रतिशत था जो 2014 में बढ़कर 65.7 प्रतिशत रहा है । महिला और पुरूषों के मतदान प्रतिशत की तुलना करने पर 1962 में यह अन्तर 16.7 प्रतिशत था । जबकि 2009 में घटकर 4.7 प्रतिशत रह गया । 2014 के लोकसभा चुनावों में यह अन्तर मात्र 1.5 प्रतिशत ही रहा । 2014 के लोक सभा चुनावों में महिलाओं ने 65.63 प्रतिशत मतदान किया जबकि पुरूषों का मतदान प्रतिशत 67.9 था । स्पष्ट है कि पुरूष वर्चस्व व्यक्तिगत, आर्थिक ,सामाजिक एवं राजनौतिक दृष्टि से महिलाओं की राजनैतिक सहभागिता को नकारात्मक रूप में प्रभावित कर रहा है । इसे दूर करने के लिए ऐसे वैधानिक उपाय करने होंगे जो महिलाओं को राजनैतिक सहभागिता के औपचारिक अवसर बाध्यकारी रूप से उपलब्ध करायें तथा महिलायें अधिकाधिक रूप से निर्णयकारिता और नियन्त्रणकारी भूमिका में कार्य कर सकें । वास्तव में यह एक ऐसा दुष्चक्र है जिसे वैधानिक उपायों से ही तोड़ा जा सकता है । संसद और राज्य के विधान मंडलों मे महिलाओं की राजनैतिक सहभागिता को अधिक सक्रिय बनाया जा सकता है । संसद और विधानमण्डलों में 33 प्रतिशत स्थान महिलाओं के लिए आरक्षण ऐसा ही बाध्यकारी वैधानिक उपाय है जो महिलाओं को उच्च स्तर पर नेतृत्व एवं निर्णयकारिता से जोड़ता है । पुरूष वर्चस्व का दुष्चक्र महिलाओं की राजनैतिक सहभागिता को किस प्रकार सक्रिय नहीं बनने देता ,यह निम्नलिखित चित्र से स्पष्ट होता है –

व्यक्तिगत ,सामाजिक ,आर्थिक और राजनैतिक अवरोधक



वास्तव में पुरूष वर्चस्व ने एक ऐसे दुष्चक्र का निर्माण कर दिया है जिसके कारण महिलाओं की सहभागिता निष्क्रिय बनी रहती है । पुरूष वर्चस्व के कारण व्यक्तिगत, सामाजिक ,आर्थिक एवं राजनैतिक अवरोधक महिलाओं को निष्क्रिय राजनैतिक कर्ता बनाते हैं जिसके कारण वे राजनैतिक व्यवस्था में प्रवेश नहीं कर पाती । महिलाओं का प्रतिनिधित्व न होने के कारण राजनैतिक निणयकारिता में उनकी भूमिका नहीं होती और महिला विकासोन्मुख नीतियों तथा विधायन का अभाव होता है । जिसके कारण विभिन्न अवरोधक बने रहते हैं और उनकी राजनैतिक सहभागिता निष्क्रिय बनी रहती है। यह दुष्चक्र इसी प्रकार बना रहता है तथा महिलाओं की राजनैतिक सहभागिता में कोई सुधार नही होता ।

पुरूष वर्चस्व के दुष्चक्र को तोड़ने के लिए इस प्रक्रिया के बाहर से हस्तक्षेप किया जाना चाहिए । लैंगिक समानता की व्यवस्थाओं को महिलाओं के पक्ष में पुर्नगठित करने के लिए जहां राज्य के बाध्यकारी उपायों से इस प्रक्रिया की शुरूआत की जा सकती है । वहीं स्वस्थ लोकमत के निर्माण में समाज और परिवार को सहयोग देकर इसे सफल बनाया जाना चाहिए । राज्य ,समाज और परिवार–तीनों स्तरों पर स्वयं महिलाओं की भूमिका सबसे अधिक महत्वपूर्ण है । इनमें सक्षम और स्थापित महिलाओं का दायित्व और भी अधिक है । वे हर स्तर पर पुरूष सदस्यों से संवाद स्थापित करें , उनके मन में महिलाओं के प्रति संवेदनशीलता उत्पन्न करके लैगिंक समानता के बिगड़े संतुलन को पुर्नस्थापित करें जिससे आबादी का वह आधा भाग जो अपने हिस्से की आजादी , अधिकारों और अवसरों से वंचित है, अधिक सक्षम और प्रभावशाली रूप से राष्ट्र निर्माण में अपना योगदान दे सके ।

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डिजिटल इण्डिया ग्रामीण विकास की सफलतायें एवं चुनौतियॉ

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जगदीश सिंह

सहायक प्रोफेसर (रिसर्च स्कालर)

एन.आई.सी.एच नजीबाबाद

वास्तविक भारत की तस्वीर को ग्रामीण दर्पण से ही देखा जा सकता है । परन्तु वर्तमान में भारत के गाँवों में भी बदलाव की नई इबादत लिखी जा रही है । महात्मा गॉधी ने कहा था " असली भारत गॉवो में ही बसता है । जब तक शहरों जैसी सुविधाओ को गॉव में विकसित नही किया जायेगा तब तक सम्पूर्ण भारत का विकास नही हो सकता है ।" क्योकि वर्तमान में भारत की 70 प्रतिशत जनसंख्या गाँवों में ही निवास करती है और जो कृषि कार्य पर निर्भर रहती है। इसका मुख्य कारण यह भी है कि भारत एक कृषि प्रधान देश है यह जुमला सिर्फ इसलिये प्रचालित नही है भारत की अधिकाशं जनसंख्या कृषि पर आश्रित है बल्कि सही अर्थो में यह उस पर्यावरणीय अनुकूलता को दर्शाता है जो भारतीय सन्दर्भ में कृषि को प्राप्त है ।

भारत में जहॉ उष्णकटिबंधीय फसल गन्ना पर्याप्त मात्रा में उपजाया जाता है वही ठण्डे प्रदेशों में होन वाले सेब जैसे फल भी बहुत मात्रा में होते है । इसी प्रकार चाय की खेती में भारत वैश्विक स्थान रखता है । तो गेहूँ ,धान जैसे समतल भूमि की फसलो के लिये भी अनुकूल दशा उपलब्ध है । इतना ही नही रबड़ ,कपास ,जूट ,जैसी नकदी फसलो की मानसूनी जलवायु के कारण कृषि की एक स्वाभाविक दशा निर्मित हो जाती है । साथ ही साथ कृत्रिम सिचाई साधनो की उपयोगिता काफी हद तक सीमित हो जाती है ।

भारत मूलतः एक ग्राम प्रधान अर्थव्यवस्था वाला देश है । बढ़ते हुये शहरीकरण के कारण कुल जनसंख्या का 72.4 प्रतिशत जनगणना 2011 के आकडों के अनुसार देश की जी0डी0पी0 (सकल घरेलू उत्पाद) में ग्रामीण क्षेत्रो की भागीदारी प्रत्येक वर्ष कम होती जा रही है । किन्तु फिर भी समग्र रूप से ग्रामीण क्षेत्रो का योगदान भारत को आज भी ग्राम प्रधान देश बनाता है । जनसंख्या के अनुमान यह बताते है कि वर्ष 2050 तक भारत अधिकाधिक रूप से ग्रामीण नही रहेगा क्योकि वर्ष 2050 के बाद शहरी जनसंख्या ग्रामीण जनसंख्या से अधिक हो जायेगी ।

सारणी स्रोत यूनाइटेड नेशंस 2012 के अनुसार

ग्रामीण भारत का शुद्ध घरेलू उत्पाद एवं कार्यशील जनसंख्या में योगदान

वर्ष	आय में हिस्सा	कार्यशील जनसंख्या
1970–71	62.4 प्रतिशत	84.1 प्रतिशत
1980–81	58.9 प्रतिशत	80.8 प्रतिशत
1993–94	54.3 प्रतिशत	77.8 प्रतिशत
1999–2000	48.1 प्रतिशत	76.1 प्रतिशत
2004–2005	48.1 प्रतिशत	74.6 प्रतिशत
2011–2012	46.9 प्रतिशत	70.9 प्रतिशत
2014–2016	45.7 प्रतिशत	68.6 प्रतिशत

भारतीय अर्थव्यवस्था में ग्रामीण क्षेत्र के योगदान के ये ऑकडें इस बात को सिद्ध करते है कि ग्रामीण भारत का विकास एवं अभिवृद्धि देश के समस्त एवं समावेशी विकास के लिये अत्यन्त महत्वपूर्ण है । भारत के बारे में यह कहा जाता है कि इसकी आत्मा इसके गॉवो मे बसती है इस कथन के प्रकाश में यह जानना जरूरी हो जाता है कि क्या डिजिटल इण्डिया जैसी महत्वाकांक्षी योजना का लाभ भारत की आत्मा तक पहुँच पा रहा है । डिजिटल इण्डिया कार्यक्रम ग्रामीण के विकास का आधार बने एवं अर्थव्यवस्था में इसका मुख्य योगदान हो इसके लिये आवश्यक है कि डिजिटल इण्डिया कार्यक्रम को जाना जाये ।

अर्थव्यवस्था का वैश्विककरण करने, विकास प्रक्रिया को नवप्रवर्तित करने, उत्पादकता बढाने और उत्पादन की लागत घटाने के साथ विकास को अनवरत बनाये रखने के लिये मानव शक्ति का कौशलपूर्ण होना सबसे बडी आवश्यकता वर्तमान में बनती जा रही है । भारत को डिजिटल रूप से सशक्त बनाने और ज्ञान केन्द्रित अर्थव्यवस्था के रूप में स्थापित करने के उद्देश्य से वर्तमान सरकार ने डिजिटल इण्डिया जैसी महत्वकांक्षी योजना को वर्ष 2015 में लागू किया ।

भविष्य में ऐसा महसूस किया जा रहा है कि देश में ग्रामीण विकास को प्रोत्साहित करने हेतु ई–गवर्नेस की प्रभावशाली उपस्थिति न सिर्फ आवश्यक है अपितु अपरिहार्य है। डिजिटल इण्डिया कार्यक्रम के तीन आधारभूत स्तम्भ है जो निम्न हैं –

अ. प्रथम विजन स्तम्भ

ब. द्वितीय विजन स्तम्भ

स. तृतीय विजन स्तम्भ

अ. प्रथम विजन स्तम्भ :–

प्रत्येक नागरिक के लिये एक मूलभूत उपयोगी सुविधा के रूप में डिजिटल आधारभूत सरंचना की उपलब्धता। यह स्तम्भ इस बात पर जोर देता है कि ई –गवर्नेस को प्रभावी ढ़ंग से लागू करने के लिये मूलभूत सुविधाऐ आवश्यक है । सर्वप्रथम इन्हे मजबूत किया जाये। इन सुविधाओ में निम्न को शामिल किया जाता है–

–: ग्रामीण नागरिको को सेवाऐ प्रदान करने हेतु मूल सुविधा को आधार मानकर इन्टरनेट सेवा उपलब्ध की जाये ।

–: प्रत्येक ग्रामीण नागरिक को ऐसी डिजिटल पहचान देना जो सम्पूर्ण जीवन अनोखी एवं विश्वसनीय हो ।

–: सुरक्षित एवं विश्वसनीय साइबर स्पेस उपलब्ध कराना ।

ब. द्वितीय विजन स्तम्भ :– (माँग पर गवर्नेस एव सेवाऐं)–

इस स्तम्भ के अन्तर्गत उन सभी बिन्दुओं एवे समस्याओं को शामिल किया गया है । जो सार्वजनिक सुविधाओ एवं सेवाओ की माँग एक नागरिक करता है ।

–: वित्तीय लेनदेनो को कैशलेस एवं इलेक्ट्रानिक बनाना ।

–: व्यापार करने में सहजता को सुधारने हेतु डिजिटली परिमार्जित सेवाऐं प्रदान करना ।

–: विभिन्न विभागो अथवा न्यायधिकारो में अवरोध मुक्त एकीकृत सेवा प्रदान करना ।

स. तृतीय विजन स्तम्भ :– (नागरिकों का डिजिटल सशक्तिकरण –इस स्तम्भ के अन्तर्गत निम्न शामिल है)

:– सार्वभौमिक डिजिटल साक्षरता ।

:– नागरिको द्वारा सरकारी प्रपत्रो एवं प्रमाण पत्रों को भौतिक रूप से जमा करने की आवश्यकता को समाप्त करना ।

:– सहभागितापूर्ण गवर्नेस के लिये संयुक्त प्लेटफार्म का होना ।

डिजिटल इण्डियॉ कार्यक्रम के तीन वर्ष पूर्ण हो चुके है । परन्तु इनकी उपलब्धि वर्ष 2015 से 2018 तक देखें तो निश्चित रूप से इसमें बहुत परिवर्तन आये हैं । जो ग्रामीण विकास में एक वरदान साबित हो सकते है ।

डिजिटल इण्डिया कार्यक्रम वर्ष 2015 में ''कुल निवेश का आकार 4.5 लाख करोड़ भारतीय कम्पनियों द्वारा''

:– रू0 100000 करोड़ की कार्यशील योजनाएँ ।

:– रू0 13000 करोड़ की नवीन योजनाएँ एवं कार्य ।

1. 2.5 लम्ब गॉवो में ब्राडबैड सुविधा
2. डिजिटल सशक्त नागरिक
3. ई–गवर्नमेट एवं ई सेवाऐ
4. वर्ष 2020 तक नेट जीरो आयात
5. 400000 सार्वजनिक इटरनेट सुविधा
6. रोजगार सृजन

   अ. प्रत्यक्ष 1.7 करोड़

   ब. अप्रत्यक्ष 8.5 करोड़

(स्रोत प्रतियोगिता दर्पण वर्ष 2018)

ग्रामीण विकास में डिजिटल इण्डिया की सफलताऐ :– ग्रामीण क्षेत्र का आधार कृषि है और कृषि का विकास हो इसके लिये डिजिटल इण्डिया कार्यक्रम द्वारा निम्न क्षेत्रो से ग्रामीणो को लाभ पहुँचा है जिससे इनकी सफलता दिन प्रतिदिन बढ़ती जा रही है।

1.कृषि ऋण में पारदर्शिता :– जब भारत के ग्रामीण क्षेत्रों में डिजिटल इण्डिया कार्यक्रम विकसित नही हो पाया था तब गॉवो में रहने वाले किसानो को समय पर कृषि ऋण एवं यन्त्रो की खरीद फरोख्त का पता नही चलता था परन्तु वर्तमान में समय समय पर टीवी के माध्यम से एवं मोबाईल सेवा से यह सब जानकारी आसानी से किसानों तक पहुँच जाती है । जिससे वे आवश्यकतानुसार समय पर इनका लाभ प्राप्त कर लेते है ।

2. कृषि बीज की उपलब्धता :– पहले किसानों को कृषि बीज की जानकारी बोने की , प्राप्त करने की, कीटों से बचने की एवं उसकी गुणवत्ता की जानकारी उपलब्ध नही हो पाती थी परन्तु वर्तमान में यह सब जानकारी डिजिटल कार्यक्रम के आधार पर सभी ग्रामीणो एवं किसानो को आसानी से फोन के माध्यम एवं तहसील स्तर पर कार्यक्रमों के माध्यम से उपलब्ध हो जाती है ।

3. फसल के भुगतान में सुगमता :– पहले किसानो को अपनी फसल का न तो दाम पता चल पाता था और न ही बेचने का उचित स्थान, वर्तमान समय में सभी ग्रामीण अपनी फसल का मूल्य जिला स्तर पर ही नही वरन राष्ट्रीय स्तर पर डिजिटल इण्डिया कार्यक्रम के माध्यम से आसानी से लगा लेते है और फिर वह अपने शहर में न बेचकर अन्य स्थानो पर भी इसको बेचकर अधिक लाभ कमा सकते हैं ।

4. सरकारी एवं अर्द्धसरकारी योजनाओं का लाभ :– वास्तव में प्राचीन समय ग्रामीण परिवेश एवं विकास में बहुत ही अन्धकार भरा था क्योकि गॉवो में रहने वाले किसानो को सही समय पर भारत सरकार की राजकीय एवं राष्ट्रीय योजनाओ का लाभ उन्हे नही मिल पाता था क्योकि ग्रामीणों के पास इन कायक्रमों की जानकारी किस तरह पहुचे इसके लिये सरकार भी आश्वत नहीं थी । परन्तु डिजिटल इण्डिया कार्यक्रम के माध्यम से उन्हे यह सूचना उनके मोबाईल पर भी उपलब्ध हो जाती है जिससे वे अब इन योजनाओ का लाभ समय पर प्राप्त कर लेते है ।

ग्रामीण विकास में डिजिटल इण्डिया कार्यक्रम के लिये चुनौतियॉ :

अब तक हमने डिजिटल इण्डिया कार्यक्रम की सफलताओं के बारे में ही जाना और बहुत ही प्रफुल्लित भी हुये परन्तु जिस प्रकार प्रत्येक सिक्के के दो पहलू होते है वैसे ही डिजिटल इण्डिया कार्यक्रम का दूसरा पहलू ग्रामीण परिवेश के लिये इस कार्यक्रम की चुनौतियॉ है जो निम्न है–

1. ग्रामीणो की साक्षरता निम्न दर
2. ग्रामीणो के पास संसाधनों का अभाव
3. ग्रामीण क्षेत्रो में बिजली की कम आपूर्ति
4. ग्रामीणो के पास धन का अभाव

5. ग्रामीणों के लिये कम्प्यूटर जैसे उपकरणो को सीखने की चुनौती
6. ग्रामीणो के पास समय का अभाव
7. नए परिवर्तनो को स्वीकार न करना

उपरोक्त तथ्यो से यह तो स्पष्ट हो जाता है कि ग्रामीण विकास के लिये डिजिटल कार्यक्रम अति महत्वपूर्ण भूमिका निभा रहा है जिससे हमारे देश की सकल घरेलू उत्पादन के विकास में भी सहयोग मिल रहा है । इस कार्यक्रम से यह उम्मीद की जा रही है। ग्रामीण विकास प्रणाली का आकार एवं दायरा बढेगा और ग्रामीणो की वित एवं यन्त्रीकरण चुनौतियो का भी हल निकलेगा साथ ही साथ ग्रामीण जनता के मात्रात्मक और गुणात्मक दोनो रूपो में सुधार भी होगा । लेकिन यह तब ही हो सकता है जब इस कार्यक्रम को सही रूप से सही व्यक्ति के पास सही समय पर पहुँचाया जायेगा तब ही ग्रामीण विकास की अंतर्निहित परिकल्पना को साकार रूप दिया जा सकेगा ।

सन्दर्भ :–

1. अमर उजाला विशेषांक
2. दैनिक जागरण का सम्पादकीय
3. इण्डिया टुडे
4. कृषि जगत मासिक पत्रिका
5. www.digitalindia.ac.in
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8. योजना मासिक पत्रिका
9. प्रतियोगिता दर्पण मासिक पत्रिका

डिजिटल इंडिया कार्यक्रम : विकसित होती अर्थव्यवस्था

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डिजिटल इंडिया को भारत की राजनैतिक, सामाजिक, अर्थव्यवस्था व देश की जनता को ज्ञान आधारित भविष्य की ओर ले जाने के महत्वाकांक्षी प्रयास के रुप में देखा जा सकता है। डिजिटल इंडिया का उद्देश्य भारत को डिजिटल लिहाज से सशक्त समाज और ज्ञान अर्थव्यवस्था में बदलना है। इसके तहत जिस लक्ष्य को पाने पर ध्यान केंद्रित किया जा रहा है, वह है भारतीय प्रतिभागी सूचना प्रौद्योगिकी और कल का भारत। डिजिटल इंडिया ने देश में डिजिटल सोच, डिजिटल नवोन्मेष, डिजिटल जागरूकता और डिजिटल महत्वाकांक्षा का माहौल बना दिया है। डिजिटल इंडिया हमें दुनिया से मुकाबला करने के लिए सक्षम बनाएगा। डिजिटल इंडिया में हर गांव ब्रॉडबैंड से जुड़ना है। ब्रॉडबैंड यानि तेज गति का इंटरनेट कनैक्शन। इस तेज इंटरनेट से ऑनलाइन लेक्चर यानि स्कूल कालेजों में पढ़ाई, टेलीमेडिसन यानि डाक्टरी मदद हर आदमी तक पहुँचाने की बात कही गई है। डिजिटल इंडिया के तहत विकास के नौ स्तंभ चिह्नित किए गए हैं। इन स्तंभों में ब्रॉडबैंड हाइवेज सबसे प्रमुख है। लेकिन सोचने की बात यह है कि जिस गांव में अभी तक बिजली और सड़क की सुविधा भी पूर्ण रूप से नहीं पहुँच पाई है वहां इंटरनेट पहुँचने में अभी वक्त लगेगा। आवश्यकता इस बात की है कि इस कार्यक्रम को देश के दुर्गम एवं अति पिछड़े क्षेत्रों तक ईमानदारी के साथ शीघ्रता से पहुंचाया जाए ताकि इसका लाभ आम नागरिक तक भी आसानी से पहुंच सकें और निर्धारित लक्ष्यों को आसानी से प्राप्त किया जा सके।

नागरिकों को तकनीकी दृष्टि से सक्षम बनाने, सरकारी सेवाओं को डिजिटल माध्यमों से जनता तक पहुँचाने, सूचना तकनीकी और दूरसंचार के क्षेत्र में व्यापक आधारभूत विकास करने तथा विभिन्न विभागों एवं मंत्रालयों की डिजिटल सेवाओं को आपस में जोड़ने वाली इतनी बड़ी सुनियोजित और समन्वित परियोजना की परिकल्पना भारत में अभी नई है। डिजिटल इंडिया को भारत की राजनैतिक, सामाजिक, अर्थव्यवस्था व देश की जनता को ज्ञान आधारित भविष्य की ओर ले जाने के महत्वाकांक्षी प्रयास के रुप में देखा जा सकता है। डिजिटल इंडिया का उद्देश्य भारत को डिजिटल लिहाज से सशक्त समाज और ज्ञान अर्थव्यवस्था में बदलना है। इसके तहत जिस लक्ष्य को पाने पर ध्यान केंद्रित किया जा रहा है, वह है भारतीय प्रतिभागी सूचना प्रौद्योगिकी और कल का भारत। डिजिटल इंडिया ने देश में डिजिटल सोच, डिजिटल नवोन्मेष, डिजिटल जागरूकता और डिजिटल महत्वाकांक्षा का माहौल बना दिया है। डिजिटल इंडिया एक विशाल अभियान के रुप में आगे बढ़ रहा है। डिजिटल लॉकर, ई–शिक्षा, ई–स्वास्थ्य, ई–हस्ताक्षर और राष्ट्रीय छात्रवृत्ति पोर्टल जैसे कार्यक्रमों के साथ इसकी शुरुआत हुई है। डिजिटल इंडिया कार्यक्रम में वर्ष 2019 तक देश के डिजिटल मानचित्र का कायाकल्प करने के लिए निम्न लक्ष्यों को निर्धारित किया है।

- ढाई लाख गांव में ब्रॉडबैंड इंटरनेट की सुविधा की उपलब्धता।
- सभी स्थानों पर फोन संपर्क की सुविधा सुनिश्चित करना।
- 2020 तक सूचना प्रौद्योगिकी और दूरसंचार के क्षेत्र मे उपकरणों के आयात पर न्यूनतम निर्भरता।
- चार लाख सार्वजनिक इंटरनेट प्रयोग केंद्रों की स्थापना।
- ढाई लाख विद्यालयों और सभी विश्वविद्यालयों में वाईफाई इंटरनेट कनेक्टिविटी की व्यवस्था।
- बड़ी संख्या में नागरिकों के लिए वाईफाई हॉटस्पॉट की स्थापना।
- सूचना प्रौद्योगिकी, दूरसंचार और इलैक्ट्रॉनिक्स के क्षेत्रों में 1.7 करोड लोगों को प्रशिक्षित कर डिजिटल समावेशन के दायरे में लाना, इतने ही लोगों को प्रत्यक्ष रोजगार देना और कम से कम 8.5 करोड लोगों को अप्रत्यक्ष रोजगार मुहैया कराना।
- ई–प्रशासन और ई–सेवाओं को सभी सरकारों के स्तर पर व्यापक बनाना।
- स्वास्थ्य, शिक्षा और बैंकिंग जैसी सेवाओं के क्षेत्र में सूचना प्रौद्योगिकी के प्रयोग में भारत को विश्व का अग्रणी देश बनाना।
- सार्वजनिक क्लाउड और इंटरनेट के प्रसार के जरिए नागरिकों को डिजिटल क्षेत्र में सशक्त बनाना।

डिजिटल इंडिया के लक्ष्य

डिजिटल इंडिया के तहत केंद्र सरकार तीन बड़े लक्ष्यों को लेकर आगे बढ़ रही है। पहला, देश में व्यापक स्तर पर आधारभूत डिजिटल सेवाओं का विकास जिनका प्रयोग नागरिकों द्वारा बेरोकटोक किया जा सके। दूसरा, जनता को इलेक्ट्रॉनिक माध्यमों से सरकारी सेवाएं तथा प्रशासनिक सुविधाएं हर समय उपलब्ध रहे अर्थात जब चाहे सेवा पाएं।तीसरा लक्ष्य है भारतीय नागरिकों को तकनीकी दृष्टि से सक्षम और सबल बनाना। इसके लिए जरुरी है कि तकनीकी उपकरणों सुविधाओं ज्ञान और सूचनाओं को समाज के सभी स्तरों तक पहुँचाया जाए। डिजिटल इंडिया हमें दुनिया से मुकाबला करने के लिए सक्षम बनाएगा। डिजिटल इंडिया में हर गांव ब्रॉडबैंड से जुड़ना है। ब्रॉडबैंड यानि तेज गति का इंटरनेट कनैक्शन। इस तेज इंटरनेट से ऑनलाइन लेक्चर यानि स्कूल कालेजों में पढ़ाई, टेलीमेडिसन यानि डाक्टरी मदद हर आदमी तक पहुँचाने की बात कही गई है। इसके अलावा मोबाइल फोन क्रांति के जरिए गरीबों तक बैंक खाते और सरकारी सहायता पहुँचाने की बात भी डिजिटल इंडिया का हिस्सा है। डिजिटल इंडिया में तमाम तरह के फार्म भरना और सरकारी काम इंटरनेट के जरिए करना शामिल है जिससें आम लोगोंको सरकारी दफ्तरों के चक्कर लगाने से निजात मिल जाएगी। दुनिया भर के अनुभवों को देखते हुए कहा जा सकता है कि ई–शासन से समर्थता, साम्यता और दक्षता आती है। इसमें लोगों के जीवन में बदलाव लाने की क्षमता है। यही कारण है कि केंद्र सरकार अब महत्वपूर्ण सार्वजनिक स्थानों को वाईफाई क्षेत्र बनाने पर जोर दे रही है। ब्रॉडबैंड हाइवे बनाना, सभी गांव तक उसे पहुँचाना और सभी स्कूलों को चरणबद्ध तरीके से ई–सक्षम बनाना इस मिशन के उद्देश्यों मे शामिल हैं।

डिजिटल इंडिया के स्तंभ

डिजिटल इंडिया के तहत विकास के नौ स्तंभ चिह्नित किए गए हैं। जिनमें ब्रॉडबैंड हाइवेज, सबकी फोन तक पहुँच, सार्वजनिक इंटरनेट एक्सिस प्रोग्राम, ई–गवर्नेंस तकनीकी मदद से सरकारी तंत्र सुधार, ई–क्रांति सेवाओं की इलैक्ट्रॉनिक डिलीवरी, सभी को सूचना, इलैक्ट्रॉनिक निर्माण में शून्य आयात, नौकरियों के लिए आईटी तथा अर्लीहार्वेस्ट प्रोग्राम (जल्दी पैदावर कार्यक्रम) शामिल हैं। इन स्तंभों में ब्रॉडबैंड हाइवेज सबसे प्रमुख है। ब्रॉडबैंड हाइवे निर्माण से देशभर की सभी पंचायतों को इससे जोड़ा गया है और लोगों को सार्वजनिक सेवाएं मुहैया कराई गई हैं। देश के पचपन हजार गांवों में मोबाइल संपर्क की सुविधा सुनिश्चित करने के लिए यूनिवर्सल सर्विस ऑब्लिगेशन फंड बनाया गया है। भविष्य में सभी सरकारी विभागों तक आम आदमी की पहुँच बढ़ाई गई है। इस कार्यक्रम के तहत पोस्ट आफिस को मल्टीसर्विस सेंटर के रुप में तब्दील किया गया है। प्रौद्योगिकी के द्वारा प्रशासन को जवाबदेह और संवेदनशील बनने की दिशा में सूचना प्रौद्योगिकी का इस्तेमाल करते हुए बिजनेस प्रोसेस री–इंजीनियरिंग के ट्रांजेक्शन में सुधार किया गया है। सभी प्रकार के डाटाबेस और सूचनाओं को इलैक्ट्रॉनिक माध्यम से मुहैया कराया गया है। ई–एजुकेशन के तहत सभी स्कूलों को ब्रॉडबैंड से जोड़ने,ढाई लाख स्कूलों को मुक्त वाईफाई की सुविधा मुहैया कराने और डिजिटल लिटरेसी कार्यक्रम की योजना को भी लागू किया गया है। किसानों के लिए रीयल टाइम कीमत की सूचना, नगदी ऋण राहत भुगतान व मोबाइल बैंकिंग आदि की ऑनलाइन सेवा प्रदान करना भी डिजिटल इंडिया कार्यक्रम के उद्देश्यों मे शामिल है। स्वास्थ्य के क्षेत्र में ऑनलाइन मेडिकल सलाह, रिकॉर्ड और संबंधित दवाओं की आपूर्ति समेत मरीजों की सूचना से जुडे एक्सचेंज की स्थापना, ई–हेल्थकेयर की सुविधा भी इस कार्यक्रम का एकस्तंभ हैं। न्याय के क्षेत्र में ई–कोर्ट, ई–पुलिस, ई–जेल, ई–प्रॉसिक्यूशन की सुविधा, मोबाईल बैंकिंग व माइक्रो एटीएम कार्यक्रम भी इसके अंतर्गत शामिल हैं। डिजिटल इंडिया कार्यक्रम के तहत सूचना और दस्तावेज तक ऑनलाइन पहुँच भी कायम की गई है। इस कार्यक्रम के अंतर्गत इलेक्ट्रॉनिक क्षेत्र से जुड़ी तमाम चीजों का निर्माण देश मे ही किया जाने लगा है, जिसके तहत शून्य आयात का लक्ष्य 2020 तक रखा गया है। डिजिटल इंडिया कार्यक्रम के तहत इस प्रौद्योगिकी के अनुरूप कार्यबल तैयार करने की प्राथमिकता दी जा रही है। साथ ही बुनियादी ढांचे पर भी बल दिया गया है। अर्लीहार्वेस्ट प्रोग्राम के अंतर्गत कुशल श्रमशक्ति की भी जरुरत है जिसे तैयार किया जा रहा है।

डिजिटल इंडिया की चुनौतियां

डिजिटल इंडिया में सरकार, पब्लिक इंटरनेट एक्सेस प्रोग्राम के तहत आगे बढ़ रही है लेकिन सोचने की बात यह है कि जिस गांव में अभी तक बिजली और सड़क की सुविधा भी पूर्ण रूप से नहीं पहुँच पाई है वहां इंटरनेट पहुँचने में अभी वक्त लगेगा। हर पंचायत तक इस योजना को पहुँचाना कठिन चुनौती है। सरकार ई–गवर्नेंस की भी बात कर रही है जिसमें सरकारी दफ्तरों को

डिजिटल बनाना और इंटरनेट से जोड़ना है। इसके लिए सरकार का सभी सरकारी कर्मचारियों को डिजिटल कार्यक्रम से रूबरू कराया जाना आवश्यक होगा। डिजिटल इंडिया प्रोग्राम के तहत सरकार ई–क्रांति की बात कह रही है, पर हर किसी के पास फोन, मोबाइल या कंप्यूटर की उपलब्धता एवं सुगमता एक चुनौती है और सबसे बड़ी चुनौती तो मानव श्रमसंसाधन की कमी भी है। देश में जितना मानव श्रम सूचना प्रौद्योगिकी के क्षेत्र में नियोजित है उसे कई गुना बढ़ाए जाने की आवश्यकता है। वित्तीय संसाधनों की व्यवस्था भी देश के सामने किसी चुनौती से कम नहीं है। ढाई लाख पंचायतों को ब्रॉडबैंड से जोड़ने में बीस हजार करोड़ रुपए से अधिक खर्च होगा जो देश की अर्थव्यवस्था को अच्छा खासा प्रभावित करेगा। एक बड़ी चुनौती विभिन्न विभागों के बीच आपसी समन्वय की भी है जिसमें केंद्रव राज्य सरकार के विभिन्न विभागों में सहभागिता आवश्यक है।

डिजिटल इंडिया से बदलाव

जिन क्षेत्रों में बदलाव देखने को मिल रहा है उनमें इलैक्ट्रॉनिक या डिजिटल भुगतान का क्षेत्र सबसे आगे दिखाई देता है। भारत में तकनीकी प्रणालियां भुगतान प्रक्रियाएं और आधारभूत ढाँचा इतना सुदृढ़ है कि वह डिजिटल भुगतानों के मौजूदा स्तर के चार गुना तक को आसानी से वहन कर सकता है। एक अरब लोगों को डिजिटल माध्यमों से धन के लेनदेन की सुविधा देने में सक्षम ढांचा पहले ही हमारे पास मौजूद है। पश्चिमी देशों में जहां डिजिटल अर्थव्यवस्था में कार्ड आधारित लेनदेन की बहुतायत है वहीं भारत में अधिकांश डिजिटल लेनदेन मोबाइल फोन के माध्यम से होते हैं। यूनाइटेड पेमेंट्स इंटरफेस एक मजबूत परियोजना है जिसने बैंकों को आधार नंबर के माध्यम से धन का स्थानांतरण करने की शक्ति दे दी है। इतना ही नहीं इसका प्रयोग करते हुए मोबाइल नंबर और पिन के माध्यम से भी धन का लेनदेन संभव हो गया है। देश में इतने बड़े पैमाने पर इस तरह की योजनाओं का सफलतापूर्वक लागू हो जाना किसी चमत्कार की बदौलत संभव नहीं हुआ है बल्कि सुसंगठित आधारमूत ढांचे, साइबर सुरक्षा के ठोस मॉडल और तकनीकी सक्षमता की बदौलत हुआ है। यह बात तो निश्चित है कि एक लाख तेरह हजार करोड़ रुपए के इस महत्वाकांक्षी 'डिजिटल इंडिया' कार्यक्रम से सामाजिक बदलाव तो अवश्य देखने को मिलेंगे साथ ही इसके परिणाम भारतीय अर्थव्यवस्था को सशक्त करेंगे। डिजिटल इंडिया कार्यक्रम के मुख्य रूप से तीन पहलू हैं जिनमें पहला, प्रत्येक नागरिक के लिए सुविधा के रुप में बुनियादी ढाँचा जैसे पंचायतों को ऑप्टिकल फाइबर से जोड़ना, मोबाइल, सेवाओं का विस्तार और मोबाइल से वित्तीय समावेशन। दूसरा, प्रशासन एवं इसकी सेवाओं को आम नागरिक तक पहुँचाना जिससे उन्हें लंबी कतारों, भ्रष्टाचार और मजदूरी के नुकसान से छुटकारा मिल सके और तीसरा प्रौद्योगिकी के माध्यम से नागरिकों का सशक्तीकरण जैसे शिक्षा, स्वास्थ्य और कौशल का विकास साथ ही कंप्यूटर और मोबाइल पर भारतीय भाषाओं में कार्य करने को और आसान बनाना है।

अंत मे कहा जा सकता है कि डिजिटल इंडिया कार्यक्रम वास्तव में समय की मांग थी जिसको समय रहते सरकार ने समझा और इसको मूर्त रूप देने के लिए संगठित प्रयास किया है ताकि भारत को ज्ञान अभिमुखी अर्थव्यवस्था (डिजिटल रूप से सशक्त) के रूप में स्थापित किया जा सके। डिजिटल इंडिया योजना से जनसेवाओं में एक दृष्टिगत क्रांति आई है और सरकारी कामकाज में लोगों के विश्वास में आशातीत वृद्धि हुई है। अब आवश्यकता इस बात की है कि इस कार्यक्रम को देश के दुर्गम एवं अति पिछड़े क्षेत्रों तक ईमानदारी के साथ शीघ्रता से पहुंचाया जाए ताकि इसका लाभ आम नागरिक तक भी आसानी से पहुंच सकें और निर्धारित लक्ष्यों को आसानी से प्राप्त किया जा सके। इसके लिए आम जनता को भी अपनी भागीदारी बढ़ानी होगी। देश के नागरिक तथा सरकार संयुक्त रूप से मिलकर ही डिजिटल इंडिया के सपने को साकार कर सकेंगे और अर्थव्यवस्था एवं राष्ट्र को डिजिटल तौर पर विकसित बना सकेंगे।

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पुलिस की भूमिका में अंकरूपण (डिजिटलाइजेशन) का महत्व

डॉ0 राजपाल सिंह
(एम0ए0, पीएच0डी0),
लेखाकार, साहू जैन कॉलेज,नजीबाबाद

आज विश्व में भारत को जो नई पहचान मिली है वह संचार प्रौद्योगिकी में हो रही प्रगति से ही है। डिजीटल इंडिया के रूप में एक महत्वकांक्षी योजना का आरम्भ दिल्ली के इंदिरा गाँधी इनडोर स्टेडियम में 1 जुलाई 2015 को प्रधानमंत्री एवं प्रमुख उद्योगपतियों मुकेश अंबानी, साइरस मिस्त्री, अजीम प्रेम जी आदि की मौजूदगी में हुआ। सरकार की सर्वाधिक प्रमुखताओं वाली योजनाओं में से एक डिजिटल इंडिया कार्यक्रम का उद्देश्य विभिन्न सरकारी विभागों को देश की जनता से जोड़ना तथा सुनिश्चित करना है कि बिना कागज के उपयोग के सरकारी सेवाएं, मांग पर ही इलेक्ट्रॉनिक रूप से आम जनता तक पहुँच सके। भारत में संस्थाओं तथा सेवाओं के डिजिटलीकरण से आधारभूत ढांचे के निर्माण, नागरिकों का डिजिटल सशक्तीकरण सहित भ्रष्टाचार पर नियंत्रण किया जा सकेगा। इससे आर्थिक समावेशन में भी सहायता होगी, जिससे राजस्व में वृद्धि होगी साथ ही साथ नोटों की छपाई पर होने वाले खर्च में बचत होगी।

इसी योजना के अन्तर्गत माह अगस्त 2017 में भारत सरकार ने गूगल टाईप एडवान्स सर्च इन्जिन से सुसज्जित एवं विश्लेषित जानकारी देने में सक्षम विभिन्न सुविधाओं से युक्त डिजिटल पुलिस पोर्टल ''सीसीटीएनएस'' का शुभारम्भ किया, यह भारत सरकार के क्राइम एण्ड क्रिमिनल ट्रैकिंग नेटवर्क एण्ड सिस्टमस का एक अंग है। यह न केवल पुलिस अधिकारियों द्वारा अपराधियों को तेजी से पकड़ने में मद्द करेगा बल्कि अपराध पीड़ित समाधान की प्रक्रिया में भी ऑनलाइन मद्द करेगा। यह परियोजना राज्य पुलिस अधिकारियों को अपराध एवं अपराधियों के आंकड़ों को सीसीटीएनएस एप्लीकेशन में दर्ज करने का मंच प्रदान करती है। जिसे राज्य डेटा बेस के माध्यम से स्टेट डाटा सेन्टर, राष्ट्रीय आँकड़ों के लिए नेशनल डाटा सेन्टर से प्राप्त किया जा सकता है। विभिन्न सुविधाओं से युक्त डिजिटल पुलिस पोर्टल पुलिस की वर्तमान स्थिति में परिवर्तन का परिचायक हो सकता है, इसके साथ ही उत्तर प्रदेश के डी0जी0पी0 श्री ओ0पी0 सिंह ने एक प्रेस कांफ्रेस के जरिये बताया कि जनता से सहयोग प्राप्त करने हेतु अब प्रत्येक थाने में 250 डिजिटल वॉलनटिअर्स (Volunteers) की नियुक्ति होगी, जिससे पुलिस विभाग का कायाकल्प हो सकता है। सीसीटीएनएस पोर्टल जांचकर्ताओं को पूरे देश में किसी भी अपराधी के इतिहास की पूरी जानकारी देगा। इस प्रणाली में अपराध और अपराधिक आँकड़ों के 7 करोड़ रिकॉर्ड्स हैं जिसमें 2.5 करोड़ एफआईआर रिकॉर्ड्स आँकड़े शामिल हैं। गूगल टाइप एडवान्स सर्च इन्जिन से सुसज्जित एवं विश्लेषित जानकारी देने में सक्षम यह पोर्टल देश की अपराधी न्याय प्रणाली का आधार साबित हो सकता है। राज्य पुलिस संगठनों और जाँच एजेन्सी जैसे सीबीआई, आईबी, ईडी और एनआईए के लिए यह डिजिटल पुलिस पोर्टल अपराध और अपराधियों के राष्ट्रीय डेटाबेस उपलब्ध कराएगा।

पुलिस की भूमिका– किसी भी देश की सुरक्षा पुलिस वालों पर ही निर्भर करती है। पुलिस व्यवस्था सभी प्रकार की शासन प्रणालियों में महत्वपूर्ण योगदान देती है। देश में शान्ति व्यवस्था बनाये रखने के लिए पुलिस का अस्तित्व आवश्यक है। किसी भी देश या राज्य में पुलिस व्यवस्था के द्वारा लूटपाट, डकैती, हत्या, विद्रोह एवं हिंसक आन्दोलन जैसी अप्रिय घटनाओं पर काबू पाया जाता है, क्योंकि उनके पास सरकारी वर्दी और कानूनी अधिकार प्राप्त होते हैं। भारतीय लोकतन्त्र में पुलिस का दायरा बहुत अधिक व्यापक है। पुलिस संगठन को सामाजिक विधान के तहत् लोगों के कार्यकलापों को विनियमित करना होता है। लोकतन्त्र में पुलिस व्यवस्था अत्यधिक जटिल है। इसके साथ ही पुलिसकर्मियों के आचार–व्यवहार में मानव मूल्य आत्मसात् होने चाहिए। जनता एक चिकित्सक की भाँति पुलिस से 24 घंटे सेवा की आशा रखती है। अंततः यह कहा जा सकता है कि पुलिस सेवा अनिवार्यतः सामाजिक कार्य है, जिसकी भूमिका समाज सेवक के रूप में होनी चाहिए। पुलिस को जनता का सद्भाव, सदाशयता प्राप्त करने का प्रयत्न करना चाहिए, इसके लिए नागरिकों की गरिमा के प्रति आदर का भाव रखना आवश्यक है। मानवाधिकारों की समझ तथा सिद्धान्तों का पालन करके ही पुलिस आम जनता का सद्भाव, आदर एवं स्नेह प्राप्त कर सकती है। लोकतन्त्र में पुलिस अधिकारियों पर प्रायः आरोप लगते रहते हैं कि ये सेवक कम और स्वामी अधिक बनते जा रहे हैं। यह स्वतन्त्रता की रक्षा की तुलना में घातक सिद्ध हो

रही है। मुख्य समस्या इन पर नियन्त्रण की है। इस तरह इसका व्यवहार और उत्पत्ति गुप्तचर पुलिस विशेष रूप से करती है। यह स्मरण योग्य तथ्य है कि आरोप अधिकारियों की लापरवाही या निष्क्रियता से सम्बन्धित नहीं होते हैं। जनसमूह का बहुत बड़ा वर्ग ऐसी घटनाओं की पुनरावृत्ति को पहचानने लगा है और पुलिस के अत्याचारों को नज़र में रखते हुए यह सोचने लगता है कि क्या राज्य और समाज दोनों पुलिस द्वारा संरक्षित और सुरक्षित है? इस प्रकार की छोटी या बड़ी दशायें उत्तम पुलिस अधिकारियों पर चारित्रिक दायित्व सौंपती है। आज के परिवेश में हालांकि पुलिस पर दिन पर दिन भिन्न–भिन्न प्रकार के आरोप लगते रहते हैं तथा पत्र–पत्रिकाओं की सुर्खियों में देखने को मिलता है कि पुलिस ने अपनी भूमिका का निर्वहन ठीक प्रकार से नहीं किया जिसके कारण जनता ने आक्रोशित हो अमुक थाने का घिराव किया। यद्यपि पुलिस पर आये दिन उसकी छवि के विरूद्ध आरोप लगते रहते हैं तथापि यह कहना अतिश्योक्ति न होगी कि समाज का अस्तित्व ही पुलिस संगठन के अभाव में खतरे में पड़ जायेगा। पुलिस संगठन की समाप्ति इसलिए भी असम्भव है, क्योंकि स्वतन्त्रता प्राप्ति से लेकर आज तक विकल्प के रूप में किसी भी ऐसी संस्था अथवा ऐजेन्सी का विकास नहीं किया गया है जो कानूनों का पालन कराने में समाज की शान्ति, सुरक्षा व मानवाधिकारों के पालन में अहम भूमिका का प्रतिपादन कर सके।

सर्वेक्षण के आधार पर पुलिस सुधार हेतु कुछ महत्वपूर्ण सुझाव–

(1) जनता के प्रति पुलिस को अपने व्यवहार में बदलाव लाना चाहिए।

(2) पुलिस भेदभाव का रवैया अपनाती है, भेदभाव नहीं करना चाहिए।

(3) पुलिस कमजोर वर्गों की प्राथमिकी दर्ज करने में लापरवाही बरतती है, लापरवाही न बरते तथा प्राथमिकी दर्ज करके निष्पक्ष जाँच करे।

(4) पुलिस रिश्वतखोरी बन्द करे एवं ईमानदारी से कार्य करे।

(5) पुलिस जनता से दूरी न बनाएं बल्कि जनता से सहयोग प्राप्त करने हेतु विभिन्न कार्यक्रम चलाए जाने चाहिए।

(6) पुलिस अपनी क्रूर छवि को सुधारे।

(7) आज पुलिस शासक व निरंकुश की भूमिका में है इस छवि को जनता की पुलिस में बदला जाना चाहिए।

(8) कानून का शासन स्थापित करना पुलिस का सर्वोच्च उद्देश्य होना चाहिए।

(9) जनता के प्रति पुलिस कर्मियों के आचार व्यवहार में मानवमूल्य आत्मसात होने चाहिए जैसे सहानुभूति, दया, शिष्टाचार तथा मानवता आदि।

(10) पुलिस मानवाधिकारों को ध्यान में रखकर कार्य करे।

(11) पुलिस को समय–समय पर सामाजिकता का प्रशिक्षण समाजशास्त्रियों द्वारा दिया जाना चाहिए।

(12) पुलिस के अच्छे कार्यों का प्रचार–प्रसार किया जाना चाहिए तथा मीडिया अनावश्यक पुलिस की छवि को धूमिल न करे।

डिजीटल इंडिया कार्यक्रम– डिजीटल इंडिया भारत सरकार की सर्वाधिक प्रमुखताओं वाली योजनाओं में से एक है। डिजीटल इंडिया कार्यक्रम 1 जुलाई 2015 को प्रधानमंत्री नरेन्द्र मोदी व प्रसिद्ध उद्योगपतियों अनिल अंबानी, अजीम प्रेम जी तथा साइरस मिस्त्री आदि की उपस्थिति में लांच किया गया। इस कार्यक्रम का उद्देश्य विभिन्न सरकारी विभागों को देश की जनता से जोड़ने तथा सुनिश्चित करना है कि बिना कागज के उपयोग के सरकारी सेवाएं, मांग पर ही इलेक्ट्रानिक रूप से आम जनता तक पहुँच सके। भारत में संस्थाओं तथा सेवाओं के डिजिटलीकरण (अंकरूपण) से आधारभूत ढाँचा के निर्माण, नागरिकों का डिजिटल सशक्तिकरण सहित भ्रष्टाचार पर नियन्त्रण किया जा सकेगा इससे आर्थिक समावेशन में भी सहायता मिलेगी जिससे राजस्व में भी वृद्धि होगी साथ ही साथ नोटों की छपाई पर होने वाले खर्च में बचत होगी। इस अभियान के तहत् 2.5 लाख पंचायतों समेत 6 लाख गाँवों को ब्रॉडबैंड से जोड़ने का लक्ष्य रखा गया। इसके अलावा डिजिटल लॉकर प्रणाली, भीम एप तथा डिजिटल सिग्नेचर सहित कई और व्यवस्थायें की गयी है। डिजिटल इंडिया की राह में बहुत सी कठिनाईयां भी है। इसमें लोगों के पास इन्टरनेट की सुविधा का न होना मुख्य

है। 125 करोड़ की देश की आबादी में मात्र 20 करोड़ लोगों के पास ही स्मार्ट फोन है, 16 साथ ही देश में इन्टरनेट की धीमी गति तथा लोगों के पास जानकारी की कमी भी डिजिटल इंडिया की राह में बाधक है। केन्द्र सरकार के इस कार्यक्रम से जो कि विभिन्न मंत्रालयों और राज्य सरकार के सहयोग से बना है तथा जिसकी निगरानी समिति के अध्यक्ष मोदी जी स्वयं हैं। भविष्य में इसमें व्यापक सुधार होने की सम्भावनायें हैं। हम इस योजना से नव भारत निर्माण का सपना देख सकते हैं।

पुलिस की भूमिका में (डिजीटलाईजेशन) अंकरूपण का महत्व– लोकतन्त्र में जनसहयोग के बिना पुलिस अपनी भूमिका का निर्वहन ठीक प्रकार से नहीं कर सकती। ''भारत में ब्रिटिश सरकार द्वारा 1861 में लागू पुलिसतंत्रीय अधिनियम आज भी पुलिस व्यवस्था का आधार बना हुआ है। यही कारण है कि देश मे कानून एवं व्यवस्था से सम्बन्धित अनेकानेक समस्याएं उत्पन्न हो गई है तथा अपराधिक स्थिति से कारगर रूप से निपटने में पुलिस की क्षमता के प्रति जनमानस में संदेह उत्पन्न हो रहा है। इसी कारण जनता, समाजशास्त्रियों एवं विश्लेषकों द्वारा समय–समय पर प्राप्त सुझावों के आधार पर पुलिस की निरंकुश एवं तानाशाही वाली पुलिस की छवि सुधारने के लिए पुलिस विभाग द्वारा एवं सरकार द्वारा समय–समय पर विभिन्न कार्यक्रम चलाये जाते हैं। इसी क्रम में ''वर्ष 2004 में गृह मंत्रालय ने पुलिस स्टेशनों में स्टेन्ड अलोन आधार पर अपराधिक रिकॉर्ड्स का कम्प्यूटरीकरण करने के उद्देश्य से राज्य पुलिस बलों के आधुनिकीकरण की परयिोजना (मार्डनाइजेशन ऑफ स्टेट पुलिस फोरसिस) (एमपीएफ) के एक भाग के रूप में कॉमन इन्टेगरेटिड पुलिस एप्लीकेशन (सीआईपीए) परियोजना की शुरूआत की गई। बाद में अपराधिक रिकॉर्ड्स के राष्ट्रीय डेटाबेस की आवश्यकता महसूस होने पर गृह मंत्रालय ने सभी पुलिस स्टेशनों को एक कॉमन एप्लीकेशन सॉफ्टवेयर के अन्तर्गत आपस में जोड़ने, जाँचने, नीति निर्धारण, डेटा विश्लेषण, अनुसंधान और नागरिक सेवाएं प्रदान करने हेतु वर्ष 2009 में सीसीटीएनएस की शुरूआत की।''14

माह अगस्त 2017 को डिजीटल इंडिया की कड़ी में भारत सरकार द्वारा पुलिस की छवि में सुधार एवं पुलिस विभाग को अत्याधिक प्रभावशाली एवं पुलिस के कार्यों को सुगम, सरल बनाने एवं आँकड़ों की सरलीकरण उपलब्धता हेतु एक गूगल टाईप एडवान्स सर्च इन्जिन से सुसज्जित एवं विश्लेषित जानकारी देने में सक्षम विभिन्न सुविधाओं से युक्त डिजिटल पुलिस पोर्टल ''सीसीटीएनएस'' पोर्टल की शुरूआत की गयी। जैसे–जैसे अपराध बढ़ते जा रहे हैं और अपराधी तकनीक का सहारा ले रहे हैं ऐसे में राज्यों में कानून तोड़ने वालों को सजा दिलाने में पुलिस जांचकर्ताओं को कठिन चुनौती का सामना करना पड़ता है। यद्यपि इस स्थिति में क्रान्तिकारी बदलाव आ रहा है। डिजिटल पुलिस पोर्टल भारत सरकार के क्राइम एण्ड क्रिमिनल ट्रैकिंग नेटवर्क एण्ड सिस्टमस का एक अंग है। यह न केवल पुलिस अधिकारियों द्वारा अपराधियो को तेजी से पकड़ने में मद्द करेगा बल्कि अपराध पीड़ित को समाधान की प्रक्रिया में भी ऑनलाइन मदद करेगा। यह परियोजना राज्य पुलिस अधिकारियों को अपराध एवं अपराधियों के आंकड़ों को सीसीटीएनएस एप्लीकेशन में दर्ज करने का मंच प्रदान करती है। जिसे राज्य डेटा बेस के माध्यम से स्टेट डाटा सेन्टर, राष्ट्रीय आँकड़ों के लिए नेशनल डाटा सेन्टर से प्राप्त किया जा सकता है। इस परियोजना पर कुल मंजूर व्यय राशि दो हजार करोड़ रूपये है। केन्द्र सरकार राज्यों एवं केन्द्र शासित प्रदेशों को हार्डवेयर सीसीटीएनएस सॉफ्टवेयर, कनेक्टविटी, एकीकृत प्रणाली, परियोजना प्रबन्धन एवं प्रशिक्षण प्रदान करती है।

जहां पुलिस एक आम नागरिक की रिपोर्ट दर्ज करने के लिए तैयार नहीं होती थी वहीं अब डिजीटल पुलिस पोर्टल की शुरूआत के बाद से नागरिकों ने पोर्टल पर शिकायतें दर्ज करना शुरू कर दिया है। यह डिजीटल पुलिस पोर्टल दोस्ताना रूप से नागरिकों केन्द्रित सेवाओं को सुगम रूप से उपलब्ध कराने के लिए सरकार की मद्द कर रहा है जो आज के आधुनिक कल्याणकारी राज्य की महत्वपूर्ण जिम्मेदारी है। ''वर्तमान में इस योजना के अन्तर्गत 15,398 पुलिस स्टेशनों मे से 14,284 पुलिस स्टेशनों में सीसीटीएनएस सॉफ्टवेयर लगाया गया है। 14,284 पुलिस स्टेशनों में से कुल 13,775 पुलिस स्टेशन इस सॉफ्टवेयर का इस्तेमाल करते हुए लगभग शतप्रतिशत एफआईआर दर्ज कर रहे हैं। 15398 पुलिस स्टेशन में से 13439 पुलिस स्टेशन इस योजना में शामिल हैं, यह पहले से ही जुड़े हुए हैं। अपराध और अपराधियों के रिकॉर्डस राज्य एवं राष्ट्रीय डेटा बेस से जुड़े हुए हैं। सीसीटीएनएस का प्रयोग करते हुए मार्च 2014 में 1.5 लाख से कम एफ.आई.आर. दर्ज हुई जो जून 2017 में बढ़कर 1.25 करोड़ हो गई। 34 राज्यों और केन्द्रशासित

प्रदेशों ने प्रधान सेवाओं जैसे अपराध रिपोर्ट करना, सत्यापन का अनुरोध, कार्यक्रमों की अनुमति इत्यादि के लिए अपने राज्य में नागरिक पोर्ट सेवाओं की शुरूआत की है। 36 में से 35 राज्य एवं केन्द्र शासित प्रदेश राष्ट्रीय अपराध और अपराधिक डेटाबेस के साथ आंकड़े साझा कर रहे हैं। इस प्रणाली में अपराध और अपराधिक आंकड़ों के 7 करोड़ रिकॉर्डस हैं जिसमें 2.5 करोड़ एफआईआर रिकार्ड्स और सम्बद्ध आंकड़े शामिल हैं।''[14]

सीसीटीएनएस परियोजना का दायरा पुलिस आँकड़ो को अपराधिक न्याय प्रणाली के अन्य स्तम्भों के साथ एकीकृत करने जैसे न्यायालय, जेल, अभियोग, पैरवी, फोरेंसिक और फिंगरप्रिंट्स और किशोर गृहों की पहुंच तक बढ़ाया गया है। इसी के अनुसार एक नई प्रणाली–अंतर परिचालन आपराधिक न्याय प्रणाली (आईसीजेएस) भी विकसित की गई है आईसीजेएस प्रणाली का विकास वांछित डेटा पाने के लिए एडवांस सर्च सेवा के साथ एक डैशबोर्ड के रूप में किया गया है। इस आईसीजेएस परियोजना का संचालन एक कार्य समूह द्वारा सर्वोच्च न्यायालय के न्यायाधीशों श्री मदन बी लोकुर की अध्यक्षता में किया गया है।

राज्य पुलिस संगठनों और सभी जांच एजेंसियों का डिजिटल पुलिस पोर्टल द्वारा सशक्तिकरण किया गया है। यह पोर्टल सीसीटीएनएस राष्ट्रीय डेटाबेस पर आधारित 11 सर्च और 44 रिपोर्ट प्रदान करता है। यह अग्रिम खोज (एडवांस सर्च) गहन खोज और विश्लोषणात्मक तकनीक से सुसज्जित है। यह प्रारम्भिक खोज दो तरह से पूरी की जा सकती है। खोज के प्रथम चरण में सर्च प्रक्रिया पूर्ण दर्ज किए गए नाम को दिखाएगी, किन्तु जहां एक अथवा दोनों नाम हैं वही रिकॉर्ड देगा। सर्चिंग के द्वितीय चरण में यह आंशिक मेल के रिकॉर्ड प्रदान करेगा और पूर्ण परिणाम भी उपलब्ध करायेगा। पोर्टल पर विभिन्न प्रकार के फिल्टरर्स उपलब्ध हैं जिनके माध्यम से आँकड़े छांटे जा सकते हैं। व्यक्ति के नाम, व्यक्ति एवं परिजन नाम, व्यक्ति एवं धारा/अनुच्छेद, निशुल्क आधारभूत खोज और दर्ज एफआईआर पर सटीक खोज, संख्या/मोबाइल नम्बर/इमेल के द्वारा सर्च पूरी की जा सकती है। यह सीसीटीएनएस पोर्टल जांचकर्ताओं को पूरे देश में किसी भी अपराधी के इतिहास की पूर्ण जानकारी प्रदान करेगा।

डिजिटल वॉलनटिअर्स का चयन– जनता के सहयोग के बिना पुलिस का कार्य अत्यन्त जटिल हो जाता है, जनता का सहयोग लेते हुए पुलिस के कार्यों को अत्यन्त सुगम व सरल बनाने एवं निरकुंश व तानाशाही वाली पुलिस को पुलिस मित्र बनाने हेतु पुलिस विभाग द्वारा सरकार के सहयोग से विभिन्न प्रयास किए जाते रहे हैं। इसी क्रम में डिजिटल इंडिया की कड़ी में ''उत्तर प्रदेश के डी0जी0पी0 श्री ओ0पी0सिंह ने एक प्रेस क्रांफ्रेंस के जरिए बताया कि अब प्रत्येक थानों में 250 डिजीटल वॉलनटिअर्स की नियुक्ति होगी,''15 जो कि अपवाहों के खण्डन समेत कई अन्य जरूरी काम करेंगें। वाट्सऐप पर एक अफवाह का सर्कुलेट होना और उस पर लोगों का यकीन एक भयानक वारदात को अंजाम दे देता है। पिछले दिनों कई खबरें सामने आई जिसमें सोशल मीडिया से फैलाई गई अफवाह पर यकीन करके भीड़ ने लोगों को पीट–पीटकर हत्या तक कर दी। खास बात तो यह है कि यू0पी0 पुलिस पहले से ही @UPPVIRALCHECK ट्वीटर हैंडल के जरिए अफवाहों का भंडाफोड़ कर रही है। इसके साथ ही आवश्यकता वॉटसऐप पर भी ऐसे ही ग्रुप की थी, जिसे डिजीटल वॉलनटिअर्स के साथ लॉन्च किया जा रहा है। इस योजना के तहत् थाना स्तर पर डिजिटल वॉलनटिअर्स बनाए जायेंगें तथा प्रत्येक थाने में एक वॉट्सऐप ग्रुप बनाया जाएगा जिसमें शिक्षक, प्रधानाचार्य, सेवानिवृत्त सैनिक, ग्राम प्रधान, बीडीसी सदस्य, छात्र नेता, आशा बहू, ग्राम सचिव, वकील, डॉक्टर, कोटेदार, विशेष पुलिस अधिकारी, क्षेत्र के होमगार्ड समेत 250 लोग शामिल होगें।

डिजिटल वॉलनटिअर्स की चयन प्रक्रिया– वरिष्ठ पुलिस अधीक्षक या पुलिस अधीक्षक की अध्यक्षता में एक कमेटी बनाई जाएगी जिसमें सम्बन्धित अपर पुलिस अधीक्षक, क्षेत्राधिकारी, थानाध्यक्ष एवं अपर पुलिस अधीक्षक अपराध को शामिल किया जायेगा। यह कमेटी गहन विचार विमर्श के बाद ऐसे लोगों को चिन्हित करेगी जो सामाजिक रूप से प्रभावशाली हो, शान्ति–व्यवस्था में सहयोग देने वाले और सोशल मीडिया पर सक्रिय हो। इसके लिए फार्म उत्तर प्रदेश पुलिस की बेबसाइट पर दिए गए लिंक पर भरवाया जायेगा। इस वाट्सेप ग्रुप के एडमिन थानाध्यक्ष और क्षेत्राधिकारी रहेंगें। इसमें अपर पुलिस अधीक्षक और मीडिया सेल के नम्बरों को भी जोड़ दिया जाएगा। स्थानीय स्तर पर किसी भी प्रकार की अफवाह फैलने पर या पुलिस का पक्ष रखने के लिए जनपदीय मीडिया सेल सभी थानों के वाट्सेप ग्रुप में सही सूचनाओं से लोगों को अवगत कराएगा और आकस्मिक घटना की सूचना तत्काल यू0पी0 100 पर भी दी जाएगी। इसके साथ ही क्षेत्र में किसी भी प्रकार की अफवाह फैलने पर पुलिस को डिजिटल वॉलनटिअर्स

सूचित करेंगें और लोगों को सही तथ्यों से विभिन्न माध्यमों (वाट्सेप, ट्वीटर, फेसबुक, यू–ट्यूब) के जरिए अवगत कराते हुए अफवाहों का खण्डन करेंगें। इसके साथ–साथ डिजीटल वॉलनटिअर्स मनचलों की भी जानकारी उपलब्ध करायेंगें। किसी भी प्रकार की साम्प्रदायिक समस्या होने पर दोनों पक्ष के लोगों से वार्ता कर समस्या का समाधान कराने में पुलिस का सहयोग करेगें तथा समाज में शान्ति व्यवस्था बनाए रखने में भी सहयोग करेंगें।

पुलिस विभाग को डिजिटलाईजेशन (अंकरूपण) कार्यक्रम के तहत् पुलिस पोर्टल से हाने वाले लाभ– पुलिस विभाग को डिजिटलाईजेशन से होने वाले मुख्य लाभ निम्न प्रकार हैं–

(1) यह पुलिस के परम्परागत कार्यों को आधुनिक बनाकर पुलिस को आधुनिक पुलिस के रूप में परिवर्तित करने का कार्यक्रम सिद्ध हो सकता है, जिससे ब्रिटिशकालीन पुलिस को आधुनिक पुलिस में प्रस्तुत करने में सहायता हो सकती है।

(2) यह आँकड़ों के सरलीकरण एवं विश्लेषित जानकारी देने में सक्षम है।

(3) यह जाँच अधिकारियों को घटित अपराधों की सही समय पर सही सूचना प्रदान करने का माध्यम है जिससे जाँच करने, डाटा विश्लेषण, योजना निर्माण, नागरिक सेवाएं प्रदान करने का माध्यम है।

(4) यह जनता से जुड़ने का एक सरल एवं सुगम माध्यम है।

(5) यह जनता द्वारा पुलिस स्टेशन में जाये बिना सीधे प्राथमिकी दर्ज कराने का एक सुगम व सरल माध्यम है, जो कि न्याय प्रणाली को मजबूत करने का माध्यम सिद्ध हो सकता है।

(6) यह पुलिस अधिकारियों को अपराध एवं अपराधियों की ऐतिहासिक जानकारी उपलब्ध कराता है।

(7) यह पुलिस की शासक व निरंकुश पुलिस को छवि के स्थान पर जनता की पुलिस के रूप में विकसित करने का माध्यम है।

(8) यह अपराधों पर लगाम लगाने का माध्यम सिद्ध हो सकता है।

(9) इससे रिश्वतखोरी पर भी लगाम लगेगी।

(10) यह कानून का शासन स्थापित कराने का माध्यम सिद्ध हो सकता है।

(11) पुलिस की छवि मीडिया व जनता द्वारा दुष्प्रचार करने के कारण भी धूमिल होती है, आज के आधुनिक युग में प्रिंट मीडिया से हटकर पुलिस के अच्छे कार्यों का प्रसार–प्रचार करने हेतु आज विभिन्न माध्यम उपलब्ध हैं जैसे सोशल मीडिया–फेसबुक, वाट्सऐप, ट्वीटर, यू–ट्यूब ई–मेल आदि।

(12) यह पुलिस प्रशिक्षण में भी सहायक है।

(13) इससे पुराने रिकार्ड को डिजीटल बनाया गया है।

(14) इससे पुलिस विभाग का कायाकल्प हो सकता है।

(15) यह पुलिस विभाग में आमूल–चूल परिवर्तन का द्योतक है।

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डिजिटलाइजेशन का कला में प्रभाव

शबाहत

(अंशकालीन प्रवक्ता)

चित्रकला विभाग

आर0 जी0 पी0 जी0 कॉलेज, मेरठ

मानव जीवन ईश्वर की अमुल्य निधि है। समय के साथ साथ प्रत्येक क्षेत्र में परिवर्तन जीवन का महत्वपूर्ण स्तम्भ है। यह परिवर्तन हमारी जीवन शैली से हमारी कलाओं में भी आता है। समय के परिवर्तन के साथ हमारी कलाओं में भी अनगिनत परिवर्तन आये हैं। आधुनिक कला में आये नवीन तकनीकों एवं प्रयोगों को हमारे समाज में स्वीकार किया गया है। परम्परा का अर्थ अनुकरण नही है। बल्कि यह एक नया संकल्प है। परम्परा समाज की रक्षक है।यह कलाकार की चिरस्थायी कीर्ति और युगों का प्रतिनिधित्व करती है।परम्परा समाज को एक सूत्र में बांधती है। परम्परा कलाकार को प्रगतिशील बनाकर उसे आधार प्रदान करती है। आज की आधुनिक कला विरोधी के रूप में उभरकर सामने आ रही है। जबकि कला की आत्मा सत्य शिवम् सुन्दरम् है। यह रसास्वादन करने की ऐसी पिपासा है। जो कानों और जिहवा से होते हुए हदय की गहराई तक पहुंच जाती है। परन्तु आज के आधुनिक परिपेक्ष्य में कलाकारों में कुछ हटकर कुछ अलग दिखाने का कौशल हावी है। जिसके कारण विषय वस्तु और चित्रांकन निम्न स्तर का हो गया है। जो दर्शकों के मन में उलसन पैदा कर देता है। अतः कला आधुनिक होने के बाद भी ऐसी होनी चाहिए। जो दर्शकों के हदय को छू जाये। क्योंकि जो कलाकृति हदस के भावों से उत्पन्न होती है वह हदय को भी छू जाती है। जो सृजन किया जाये वो नवीन प्रयोगों के साथ परम्परा को ध्यान में रखकर उचित बनाये जाने चाहिये ।

परम्परा के साथ आधुनिक का समावेश करना आवश्यक है। भारतीय कला की अपनी गरिमा है। उसका लक्ष्य है अपने सांस्कृतिक, पारम्परिक भावों की अभिव्यक्ति जो भी क्षीण न हो । आज आधुनिक कला बड़े मनोयोग से अपने अतीत – परम्परा से टूटकर नये मौलिक रूपों के सृजन का प्रयास कर रही है। जिसे देखकर लगता है कि अनंतकाल से चली आ रही कला परम्परा कहीं सर्वथा के लिये नष्ट–भ्रष्ट न हो जाये आधुनिक कला इस बदलते युग में जहां अनेक माध्यमों ए प्रभावों और प्रयोगों द्वारा सृजन का नया दौर आरम्भ हुआ है हमें देखना है कि हमारी पारम्परिक धरोहर में कितनी संभावनायें छिपी हुई हैं। कला के उद्वार का प्रयास केवल तभी सफल हो सकता है जब अतीत एंव वर्तमान से उसका सामन्जस्य स्थापित करके ही हम इस उद्देश्य में सफलता प्राप्त कर सकते हैं।परम्परा समाज को बांधने का कार्य करती है। उसमें समाज को अटूट बंधन में बांधने की शक्ति होती है कोई भी देश तभी समृद्व हो सकता है जब वह परम्परा से जुड़ा हो और जहां परम्परा लचीली होती हो अर्थात् समय आने या आवश्यकता पड़ने पर कुछ बदलाव किया जा सके। परम्परा में अद्भुत पूर्णता होती है। उसमें युगों से संचित सांस्कृतिक तत्व कलाकार के लिये नवीनतम सौंदर्य के प्रतिमान उपस्थित करते हैं।

इसलिये कलाकार प्रत्यक्ष या अप्रत्यक्ष रूप से जुड़ा रहता है। जब हम आधुनिकता की बात करते हैं तो उसमें कहीं न कहीं परम्परा से जुड़े रहने और उससे पृथक् एक नवीन स्वरूप ग्रहण करने की ओर ध्यान केन्द्रित करने का सतत् आग्रह होता है। क्योंकि आधुनिकता को परम्परा से अलग करके नही देखा जा सकता है। आधुनिकता को समझने के लिये उसके परंम्परा से जुड़े होने और और साथ उसके भिन्न होने की स्थिति और सत्य को समझना भी आवश्यक है कि आधुनिकता एक ऐसी प्रक्रिया है जो परम्परा के आगे की ओर उन्मुख होती है। आदर्शवादी ढंग से कहा जाये तो भारतीय परम्परा व्यक्तियों, समुहों, समुदायों तथा समाजों की प्रत्येक पीढ़ी से यह अपेक्षा रखता है कि केवल विरासत में प्राप्त अपनी परम्पराओं को नहीं ढ़ोते रहेंगे बल्कि इसमें कुछ नया और अच्छा जोड़ने और जब भी जरूरत पड़ेंगी, इसे बदलेंगे।

नवीन प्रयोगों एवं तकनीकों ने हमारे सोचने के तरीके को बदला और हमारी रूचियों को बढावा दिया है। इन परिवर्तनों के साथ नई मीडिया कला में शैली आयी। वह अपने साथ नई तकनीकों को लेकर आयी जिनमें डिजिटल आर्ट विडियो गेम्स कम्पयूटर एनिमेशन वर्चुअल आर्ट इन्टरनेट आर्ट आयी जो सामाजिक एवं सांस्कृतिक बदलाव के रूप में फली फूली। हमारे भारत में सरकार द्वारा डिजिटल इंडिया लहर समाज को प्रदान की गयी उस लहर से हमारी कलाऐं एवं तकनीकों को अब अन्तर्राष्ट्रीय स्तर पर विश्वविद्यालयों में

प्रशिक्षण दिया जा रहा है। यहॉ हम इन्ही विधाओं में से एक विधा डिजिटल आर्ट पर प्रकाश डालने का प्रयत्न करेंगे। डिजिटल आर्ट एक ऐसा कलात्मक प्रयास एवं कार्य है। जिसमें डिजिटल तकनीक को कला का प्रमुख एवं अनिवार्य हिस्सा बनाकर कार्य किया जाता है। इसमें असंख्य प्रकार के डिजाइन किये जाते हैं। इसीलिये इसे हम मीडिया आर्ट भी कहते हैं।

डिजिटल आर्ट में किसी कृति को तैयार करने के लिये पहले से चले आ रहे पारंपरिक तरीकों के बजाये आधुनिक प्रौद्योगिकी का सहयोग लिया जाता है। कम्प्यूटर ग्राफिक्स ऐनिमेशन आदि नये क्षेत्र आते हैं। आधुनिक युग में डिजिटल आर्ट की सीमाओं में तेजी से परिवर्तन भी आ रहे हैं और इसका विस्तार भी व्यापक हो रहा है। कम्प्यूटर के साथ साथ कला के क्षेत्र में प्रौद्योगिकी के प्रयोग में भी विस्तार हुआ। इसके विस्तार के साथ कलाकारों ने इसे नये आयाम प्रदान किये ।

इंटरनेट के व्यापक विस्तार से इसे विशेष उन्नति प्राप्त हुई आज इंटरनेट पर देखते हैं। इनमें ऐनिमेशन का प्रयोग किया जाता है जिसमें नये कलाकारों ने नवीन आयाम एवं दिशायें प्रदान की है। इन ऐनिमेशन आदि का प्रयोग करके कुछ कलाकार आस पास या कुछ नवीन प्रयोगों द्वारा साउंड इफैक्टस देते हैं देखने वालों को और भी आनन्दित करता है। डिजिटल टैक्नोलौजी ने पेंटिंग ड्राइंग मूर्तिकला और संगीत कलाओं आदि का रूप ही परिवर्तित कर दिया है जबकि नेट आर्ट डिजिटल इन्स्टोलेशन आर्ट और वर्चुअल रियलिटी आदि आज कलात्मक प्रक्रिया के रूप में पहचाने जाने लगे हैं।

डिजिटल कलाकारों का आज के युग में अलग पहचान एवं प्रयोग है। वह किसी मनुष्य एंव आकृति के उपर डिजिटल लाइट के माध्यम से अनगिनत रूप परिवर्तन एंव वेशभूषा को परिवर्तित कर देखने वाले को आनन्द विभोर कर देते हैं। कोइ कलाकार पुरानी ऐतिहासिक तस्वीरों को डिस्पले करके कपड़ा बनाने वाली मशीनों के शोर को एक बेहतरीन साउंड के रूप में प्रयोग कर लेता है। जिससे उन तस्वीरों को देखने वाले का हदय अति आनन्दित एंव उत्सुक होता है। डिजिटल आर्ट मे इसके अतिरिक्त खाली दीवारों पर अनेकों चित्र एंव चलचित्र प्रदर्शनियॉ लाइट के माध्यम से यह कलाकार हमे दिखाते है।

एक छोटे चित्र को लाइटस के माध्यम से हम अलग अलग एंव विशाल स्वरूप में भी देख सकते हैं। इसके अलावा डिजिटल आर्ट तकनीक का प्रयोग मुख्य धारा की कला जैसे विज्ञापन डिजिटल इफैक्ट वाली फिल्म आदि में सर्वाधिक रूप से किया जाता है। डैक्सटॉप पब्लिशिंग ने पब्लिशिंग की दुनिया में गहरा प्रभाव डाला है। जबकि वह ग्रफिक डिजाइन से काफी नजदीक है। पारम्परिक व डिजिटल दोनों ही माध्यमों में काम करने वाले कलाकारों ने अपने कार्यों के सृजन के लिये इलैक्ट्रौनिक सूचनाओं का प्रयोग करते हैं। द्रश्य एंव श्रव्य कलाओं के बीच डिजिटल आर्ट की महत्वता को इस संदर्भ में स्वीकार करना संभव है। विगत तीन दशकों में इलैक्ट्रौनिक म्यूजिक को भी अब उसी प्रकार स्वीकारा जा रहा है। जिस प्रकार इलैक्ट्रौनिक म्यूजिक को भी अब उसी प्रकार स्वीकारा जा रहा है जिस तरह से इलैक्ट्रौनिक कला को स्वीकारा गया है।

डिजिटल आर्ट शुद्व रूप से कम्प्यूटर जनरेटेड या उससे प्राप्त स्त्रोत जैसे स्कैन, फोटोग्राफ एइमेज ग्रफिक, सॉफटवेयर ग्रफिक टेबलेट पर र्निभर होती है। तकनीकी रूप से डिजिटल आर्ट किसी अन्य मीडिया प्रक्रिया या स्केन आदि के रूप में भी काम के लिये जाने वाले कार्य को बोल दिया जाता है। सुक्ष्म रूप से यह कम्प्यूटर प्रोग्रामिंग माइक्रोकन्ट्रोलर ऐसा इलेक्ट्रोनिक सिस्टम जो किसी इनपुट को आउटपुट में बदलने की क्षमता रखता हो। डिजिटल टैक्स्ट एवं डाटा. ऑडियो एवं विडियो रिकॉडिंग आदि को डिजिटल आर्ट नही माना जा सकता है। लेकिन वह किसी कम्प्यूटर आर्ट का हिस्सा हो सकते हैं। जब किसी पेंटिंग के समान कोई आर्ट वर्क तैयार किया जाता है तो वह डिजिटल पेंटिंग कहलाता है। लेकिन उसमें कम्प्यूटर द्वारा कोई सॉफटवेयर या डिजिटल आउटपुट ही होता है।

कम्प्यूटर जब सार्वजनिक रूप से 1985 में आया तो एण्डी वारहोल ने कोमोडोर अमिगा का प्रयोग कर डिजिटल आर्ट बनाया था। आज डिजिटल आर्ट अपने विभिन्न स्वरूपों में उपस्थित है।

डिजिटल आर्ट में द्विआयामी विजुअल इन्फोर्मेशन या त्रिआयामी विजुअल इन्फोर्मेशन होता है। त्रिआयामी विजुअल इन्फोर्मेशन में परिपेक्ष्य सभी इलैक्ट्रौनिक विजुअल डिस्पले के अर्न्तगत आते हैं। सबसे सरल द्विआयामी कम्प्यूटर ग्राफिक है जिससे यह समझाया जाता है कि किस प्रकार पेपर पर पेंसिल के प्रयोग से कैसे ड्राईंग बनाई जाती है। इसमें इमेज या तस्वीर कम्प्यूटर स्क्रीन बनाती है।और पेंसिल के स्थान पर माउस आदि होता है। जो भी सामग्री सामने आयेगी वह पेंसिल पेन या पेंट ब्रश जैसी ही होगी। दूसरे प्रकार त्रिआयामी कम्प्यूटर ग्राफिक है जहॉ पर स्क्रीन एक वर्चअुल इन्वायरमेंट में एक विण्डो के रूप में बदल जाती है। जहां कोई

भी ऑबजेक्ट कम्प्यूटर द्वारा फोटोग्राफ में बदलता है।उन्हें ही स्क्रीन पर अरेंज करना होता है। द्विआयामी कम्प्यूटर ग्राफिक में शस्टर और त्रिआयामी कम्प्यूटर ग्रफिक में बेकटर ग्राफिक का प्रयोग होता है। त्रिआयामी कम्प्यूटर ग्राफिक से ही रियलिटी इन्स्टॉलेशन बनाये जाते हैं।इन सब कलाओं और इन प्रणालियों को कम्प्यूटर के बिना नही किया जा सकता । फ्रेक्टल आर्ट, डाटामोशिंग आर्ट आदि सब कम्प्यूटर की सहायता से ही संभव है।

त्रिआयामी ग्राफिक डिजाइन आदि प्रक्रिया द्वारा बनाये जाते हैं।जिनमें ज्यमितिय आकार आदि त्रिआयामी इमेज बनायी जाती है। इन त्रिआयामी प्रभावों को फिल्म टी वी गेम्स और स्पेशल इफैक्टस देने के लिये प्रयोग किया जाता है। इन प्रयोगों के लिये भिन्न भिन्न प्रकार के सॉफटवेयर प्रोग्राम होते हैं। यह तकनीक कोलोबोरेशन आदि द्वारा विकसित होती है। इसके इस्तेमाल से कलाकार मौलिक कलाकृतियों की रचना करता है।

डिजिटल आर्ट में कम्प्यूटर के द्वारा एनिमेटेड आकृतियों का निर्माण किया जाता है। जिसमें कलाकार त्रिआयामी प्रकिृया का प्रयोग डिजिटल प्रक्रिया द्वारा करता है। कईं प्रकार की फिल्म पूरी की पूरी कम्प्यूटर ग्राफिक द्वारा बनायी जाती है। वह कम्प्यूटर जेनेरेटेड इमेजनरी कहलाती है। इसे सी जी आई कला जाता है। फिल्मों में यह बहुत उपयुक्त है।

डिजिटल आर्ट का प्रयोग इन्स्टॉलेशन बनाने में भी किया जाता है। इससे कई प्रकार की गतिविधियों एंव शैलियों का प्रयोग किया जाता है। डिजिटल आर्ट द्वारा कईं बार विडियो का प्रयोग करके बड़े आकार में दिखाया जाता है। देखने वाले के मन को अत्यधि ाक प्रभावित एंव आनन्दित करती है।

डिजिटल आर्ट के प्रयोग से असंख्य कृतियॉ तैयार की जा सकती है। इसके बढ़ते प्रभावों के कारण ही मीडिया पाठ्यक्रम में स्थान प्राप्त हुआ है। आज के युग में नये कलाकार इसे अपने प्राचीन एंव ऐतिहासिक संबंधों से जोड़कर दुनिया के सामने एक नयी धारणा प्रदान कर रहे हैं। यह अति हर्ष का विषय है कि नये तकनीको में हम अपनी प्राचीनता अपने महत्वपूर्ण विषयों को साथ लेकर चल रहे हैं। इस आर्ट के लिये अलग से कला संग्रहलय का भी निर्माण किया जा रहा है। डिजिटल आर्ट ने कला को और आकर्षित बना दिया है। डिजिटल आर्ट को कम्प्यूटर के माध्यम से कहीं भी देख सकते हैं। डिजिटलाइजेशन ने कला के क्षेत्र में महत्वपूर्ण योगदान दिया है। यह कला में एक सफल प्रयास माना जा सकता है।

संदर्भ ग्रंथ सूची

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स्त्री चेतना और समकालीन चुनौतियाँ

शबनम

एम.ए. हिन्दी, बी.एड.

हमारा समाज मनुष्य जाति के उस तबके के अस्तित्व बोध से अनभिज्ञ रहा है जो सबसे अधिक विनम्र सहनशील, संवेदनापूर्ण और सही अर्थों में शक्तिशाली है। यह तबका 'स्त्री' जाति का है। स्त्रियों का जीवन संघर्ष से भरा हुआ है। इतिहास का हर एक पन्ना उसके दमन, शोषण और संघर्ष की कहानी कहता है। उसके जीवन का प्रत्येक क्षण चुनौतीपूर्ण होता है। उसे जन्म से ही अनेक परम्पराओं, रूढ़ियों और पर्दों आदि के बोझ तले दबाकर उसके व्यक्तित्व को कमजोर कर दिया जाता है या यों कहें कि उसे 'स्त्री' बना दिया जाता है। वह किसी पुरुष की बेटी, पत्नी या माँ बनकर ही रह जाती है। उनके जीवन का प्रत्येक आयाम विषमताओं की इन त्रासदियों से इतना घिरा हुआ है कि सदियों से स्त्रियाँ अपने 'स्वयं' को नष्ट करके ही जी रही है।

जब–जब स्त्रियों ने अपने हकूक अपनी अस्मिता का प्रश्न उठाया उन पर तरह–तरह की रूढ़िवादी सोच थोप दी गई, फतवो का एक फंदा बनाकर उनके गले में बांध दिया गया। किन्तु कुछ समाज सुधारक स्त्रियों जैसे–सावित्री बाई फुले, एनी बेसेंट, पंडिता रमाबाई, सशक्त महिला साहित्यकार महादेवी वर्मा आदि और नारीवादियों जैसे– राजाराम मोहन राय, ईश्वरचन्द्र विद्यासागर, स्वामी दयानन्द सरस्वती, महर्षि कर्वे और विवेकानन्द के निरन्तर प्रयासों से स्त्रियों ने अपने आपको अनेक बुरी प्रथाओं से मुक्त कर लिया है। उनके विकास का मार्ग इतना दुरूह है कि अनेक रूढ़ियों के खत्म होने के पश्चात् भी वह इतना सुगम नहीं बन पाया कि उस पर सरलता से चला जा सके। आज भले ही भारतीय नारियों में से कुछ चाँद की सैर कर आयी हो और कुछ एवरेस्ट की चोटी छूकर अपनी शक्ति का परिचय दे चुकी हों किन्तु आज भी उनके ही जैसी लाखों स्त्रियाँ घूँघट के पीछे छिपकर घर का चूल्हा चौका करने तक ही सीमित है। उनका जीवन आज भी चारदीवारियों के भीतर ही घुटने के लिए अभिशप्त है।

Crime in India 2016

National Crime records bureau के मुताबिक महिलाओं के खिलाफ अपराध के कुछ वर्तमान आंकड़े इस प्रकार है–

Table 1
Crime Against Women

	Crime Incidents			Crime Rate		
Year	2014	2015	2016	2014	2015	2016
Total Crime Against Women	3,39,457	3,29,243	3,38,954	56.6	54.2	55.2

Table 2

S.No.	Crime Head	Total Cases Reported	Major State/UT during 2016		
1	Cruelty by Husband or his relative	1,10,378	West Bengal (19,302)	Rajasthan (13,811)	UP (11,156)
2	Assault on women with Intent to Outrange Her Modesty	84,746	Maharashtra (11,396)	UP (11,335)	Madhya Pradesh (8,717)
3	Kidnapping and abduction	64,519	UP (12,994)	Maharashtra (6,170)	Bihar (5,496)
4	Rape	38,947	Madya Pradesh (4,882)	UP (4,816)	Maharashtra (4,189)

Source—Ministry of Home Affairs, Govt. of India

इन आँकड़ो में स्त्रियों के ऊपर हुए अत्याचारों का सबसे बड़ा प्रतिशत (32.6:1) पति या उसके सम्बन्धियों द्वारा किया गया है। इसके लिए कहीं न कहीं हिन्दूधर्म जिम्मेदार है क्योंकि यहाँ पर जीवनसाथी को पति की संज्ञा दी गई है। और, पति का अर्थ है—मालिक। जब किसी पुरुष को शादी होने पर स्त्री का मालिक बना दिया जाता है, तो वह मालिक (पति) अपने नौकर (पत्नी) से अपनी इच्छा के अनुसार काम करवाता है। अगर स्त्री ऐसा नहीं करती तो उसे तरह—तरह से प्रताड़ित किया जाता है।

''चाहे हिन्दू नारी की गौरव गाथा से आकाश गूँज रहा हो चाहे उसके पतन से पाताल कांप उठा हो; परन्तु उसके लिए 'न सावन सूखे न भादो हरे' की कहावत ही चरितार्थ होती है। उसे अपने हिमालय को लजा देने वाले उत्कर्ष तथा समुद्रतल की गहराई से स्पर्धा करने वाले अपकर्ष दोनों का इतिहास आंसुओं से लिखना पड़ा है और सम्भव है कि भविष्य में भी लिखना पड़े।''

स्त्री अधिकारों के तमाम संघर्षो, मौजूद कानूनों के बावजूद 34 मिनट में एक बलात्कार 26 मिनट में एक स्त्री का विनय भंग 42 मिनट में एक यौन उत्पीड़न 43 मिनट में एक स्त्री का अपहरण, 93 मिनट में एक स्त्री की हत्या भी तथाकथित आधुनिक समाज की हकीकत है। उत्पादन के कार्यों में बहुलता से शामिल स्त्रियों का उत्पादन के संसाधनों से वंचन आज तक की हकीकत है तो हरियाणा की एक पंचायत के द्वारा प्रेमी युगलों की हत्या या झारखण्ड के पाठक परिवार के द्वारा अपनी बेटी की अंतरजातीय—विवाह के अपराध के लिए हत्या भी निरंतर विकसित होते सामंतवादी उत्पादन प्रक्रिया को बहुत पीछे छोड़ चुके पूंजीवादी भारत की हकीकत है।

सन् 2001 की जनगणना के अनुसार राष्ट्रीय स्तर पर प्रति 1000 पुरुषों पर 933 महिलाओं का अनुपात आता है। परन्तु 0—6 वर्ष की आयु संवर्ग में यह अनुपात केवल 1000:927 ही आता है, जबकि 1991 में यह 1000:945 था। पंजाब में यह अनुपात 1000:793 पाया गया जबकि 1991 में प्रति 1000 लड़कों पर 878 कन्याओं का अनुपात था। इसी प्रकार गुजरात में 1991 में यह अनुपात 1000:928 था जो कि अब घटकर 1000:878 रह गया है। इसके अतिरिक्त संयुक्त राष्ट्र विकास कार्यक्रम की एक ताजा रिपोर्ट में बताया गया है कि केवल मुम्बई में वर्ष 1984 में कन्या भ्रूण के 40,000 मामले प्रकाश में आये तथा तमिलनाडु में छः जनपदों में प्राथमिक स्वास्थ्य केन्द्रो से प्राप्त आँकड़ों के अनुसार 1995 में 3178 मामलों में कन्या भ्रूण को नष्ट कर दिया गया।

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वर्ष	अनुपात
1981	1000:962
1991	1000:945
2001	1000:927
2011	1000:914

Census of India की रिपोर्ट (जो प्रत्येक 10 वर्ष बाद निकलती हैं) के मुताबिक 1981 से 2011 के बीच प्रति 100 लड़कों पर लड़कियों का अनुपात लगातार गिर रहा है–

यह उस भारत देश की स्थिति है जहाँ 'यत्र नार्यस्तु पूज्यन्ते रमन्ते तत्र देवता' की उक्तियाँ कही गईं। इन उक्तियों को पुलिस स्टेशन के गेट पर भी लिखा देखा जाता है, किन्तु दुखद बात यह हैं कि वहाँ पर स्थिति एकदम विपरीत नज़र आती है। ''गौरतलब है कि भारत में महिला संवेदी विकास सूचकांक (जी0 डी0 आई0) लगभग 0.5 या उससे भी कम है। भारत में प्रसव के दौरान हर सात मिनट पर एक महिला की हत्या हो जाती है जो स्वास्थ्य रक्षा तथा पोषक आहार सुविधाओं में कमियों की ओर इंगित करता है। महिला आर्थिक गतिविधि दर (एफ0 ई0 ए0 आर0) केवल 42.5 प्रतिशत है। श्रम मंत्रालयों से मिले आँकड़ों के अनुसार मिलने वाली मज़दूरी में 27.6 प्रतिशत का अन्तर है। जहाँ तक सामाजिक और परिवारिक जीवन का प्रश्न है तो वहाँ भी स्थिति दारुण है भारत में प्रत्येक 77 मिनट में यौन उत्पीड़न का मामला दर्ज होता है। हर तीन मिनट में महिलाओं के खिलाफ एक आपराधिक वारदात होती है। राष्ट्रीय मानवाधिकार की रिपोर्ट को देखे तो पता चलता है कि दिल्ली में महिलाओं कें साथ बलात्कार की घटनाओं में भारी वृद्धि हुई 2001 में बलात्कार के 381 मामले दर्ज किये गये थे। 2005 में इनकी संख्या बढ़कर 660 मामलों तक पहुंच गई। ''

National crime Records bureau के अनुसार 2012 में बलात्कार के 1,01,041 मुकदमे लम्बित थे, जिनमे से केवल 3,563 को ही सजा सुनाई गई। इस रिपोर्ट के मुताबिक केवल 3.5 प्रतिशत केस के आरोपियों को ही सजा मिली। इनमें से कुछ को बरी कर दिया और बाकी अभी भी लम्बित है। इसके अलावा वर्ष 2012 में 23 वर्षीय निर्भया कॉंड और वर्ष 2018 में कठुआ और उन्नाव में नाबालिग बच्चियों के साथ हुई दरिंदगी शायद ही कोई भूला हो। ये वो आँकड़े है जो बड़े स्तर पर समाज के सामने आये और इनका विरोध हुआ लेकिन जमीनी स्तर पर सच्चाई इससे कहीं ज्यादा है।

भारतीय समाज में स्त्रियों का यौन शोषण वर्तमान का सबसे बड़ा व घातक मुद्दा है। बड़ी संख्या में युवतियाँ अपने सगे–संबंधियों और अपने प्रेमी द्वारा ही यौन शोषण का शिकार होती है। जिसका खामियाजा महिलाओं को तो भुगतना ही पड़ता है साथ ही उनके भ्रूण या नवजात शिशुओं पर भी शोषण की ये गाज आ गिरती हैं। भ्रूण गर्भपात कराकर उसे जन्म से पहले ही मौत दे दी जाती है। अनेक ऐसी औरतें जो बिना शादी के माँ बन जाती हैं उन्हें अपने नवजात शिशुओं को फेंकना पड़ता हैं। इन नवजात शिशुओं में भी लड़कियों की संख्या अधिक होती हैं। हाल ही में प्रदेश सरकार द्वारा ''पालना शिशु स्वागत केन्द्र'' खोलने की योजना इस बात का प्रमाण है।

महिलाओं के साथ बढ़ते दुष्कर्म का दोषी स्वयं महिलाओं को ही ठहराया जाता रहा है। उनके पहनावे को उनकी स्थिति का जिम्मेदार ठहराया जाता रहा है, किन्तु नाबालिग बच्चियों और अधेड़ उम्र की महिलाओं के साथ होने वाले निरन्तर बलात्कारों की खबरों से रंगे जानेवाले अखबार इसका कारण जानने के लिए उत्सुक हैं। यह समाज की सबसे अधिक घिनौनी और क्रूर घटना है जो महिलाओं की अस्मिता पर प्रश्न चिह्न लगाए हुए हैं। आखिर औरतों की अस्मत कब तक लूटी जाती रहेगी ? कब तक बच्चियों को सुरक्षित रखने के लिए उनको घर की चाहरदीवारी तक सीमित किया जाता रहेगा। कब तक दोषियों को सज़ा देने के बजाए उल्टा औरतो पर ही दोषारोपण होता रहेगा ?

किसी भी धर्म, जाति या तबके की स्त्रियों की दारुण गाथा हर जगह मौजूद है। स्त्रियों की इस गाथा को सदियो से वैसा ही बनाए रखने में हमारी कुछ पितृसत्तात्मक सोच वाली परम्पराओ, रीतियों आदि ने महत्वपूर्ण भूमिका निभाई है। कई जगह दोष पुरुष

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[4] . देश में स्त्रियों की स्थिति और स्त्री मुक्ति का प्रश्न, लेखन प्रसेन भारत कोश में संकलित

[5] . दैनिक जागरण में छपा नाइश हसन का लेख 'मज़हबी तहखाने में बंद कुरीतियाँ'

का भी नहीं होता बल्कि उस मानसिकता का होता है जो सदियों से हमारी संस्कृति हमारी परम्परा के नाम पर हमें सिखाया जाता रहा है। भारतीय समाज में कई ऐसे त्यौहार मौजूद हैं जो पुरुषों में उनके स्वामित्व को बनाए रखने के लिए सहायक हैं। ये हिन्दू धर्म में तो है ही मुस्लिम समाज भी इससे अछूता नहीं है। शिया समुदाय के बोहरा पंथ में स्त्रियों की यौनिकता पर नियंत्रण रखने के लिए धर्म के नाम पर उनका खतना करना इसका ज्वलंत उदाहरण हैं। ''भारत में बोहरा समुदाय की आबादी 20 लाख से अधिक है। इस समुदाय ने धार्मिक, पारिवारिक कार्यक्रम में हिस्सा लेने के लिए स्त्रियों की खतना जैसी कुप्रथा को आवश्यक माना हैं। उनका मानना है कि स्त्रियों को यौन आनंद की नहीं बच्चे जनने की जरुरत है। खतना के दौरान बच्चियाँ गंभीर शारीरिक व मानसिक पीड़ा से गुजरती हैं। उन्हें रक्तस्त्राव व बुखार जैसी समस्याएँ होती है, जिसके चलते कभी–कभी उनकी मृत्यु भी हो जाती हैं। इस समुदाय की लगभग 95 फीसदी महिलाएँ इस कुप्रथा का शिकार है। विश्व स्वास्थ्य संगठन के अनुसार अफ्रीका और ऐशिया के करीब 30 देशों में 20 करोड़ से ज्यादा लड़कियों का खतना हो चुका हैं। दुनियाभर में हर रोज 6 हज़ार लड़कियाँ इस कुप्रथा की शिकार होती हैं। ''इस प्रथा के खिलाफ संयुक्त राष्ट्र ने पहला कदम उठाया और इस निंदा प्रस्ताव का असर भारत में तो नहीं हुआ।

मुस्लिम स्त्रियों के शोषण से सम्बन्धित एक और कुप्रथा ''मुताह निकाह'' हैं। यह कुप्रथा स्त्रियों के सदियों से हो रहे शोषण से हमको मुखातिब कराती हैं। इसका इतिहास बहुत पुराना हैं। इस्लाम धर्म के अभ्युदय से पहले अरब समाज में यह प्रथा काफी प्रचलित थी। एक निश्चित रकम देकर स्त्री पुरुष का सम्बन्ध ''मुताह निकाह'' कहलाता हैं। इस्लाम धर्म के पैगम्बर हज़रत मौ0 साहब के द्वारा इसका विरोध किया गया फिर भी हमारे देश में यह घिनौनी प्रथा प्रचलित है। यह निकाह वैश्यावृत्ति का ही दूसरा रुप कहा जा सकता हैं। निकाह के ये घिनौने तौर तरीके 21 वीं सदी में भी मौजूद हैं। इसको खत्म करने के लिए कोई सार्थक पहल भी नहीं की गई है। इस निकाह के मामले लंबे समय से सामने आते रहे हैं। ''हाल ही में हैदराबाद में पुलिस ने एक मुताह निकाह का खुलासा करते हुए ओमान और कतर के 8 नागरिको को गिरफ्तार किया। अस्थाई विवाह का जरिया बने मुताह पर कोर्ट में लम्बी बहस तो हुई, लेकिन इसे समाप्त करने की कोई याचिका न्यायालय में नहीं आयी। इसके ज़रिए ग़रीब औरतें धर्म के नाम पर यौन दासी बनाईं जाती हैं।

21 वीं सदी में इस तरह की घिनौनी प्रथाएँ इस शिक्षित समाज की कड़वी सच्चाई है। यह समय बदलाव का समय है। अब देष में ऐसी घिनौनी प्रथाओं के साँस लेने के लिए भी स्थान नहीं होना चाहिए। इसके लिए हर सम्भव प्रयास किये जाने चाहिए तभी इस प्रोग्रेसिव भारत में देष की लगभग आधी आबादी अपना सक्रिय योगदान दे पायेगी। भारत को विकसित बनाने का सपना भी तभी साकार हो पायेगा।

आज की स्त्रियाँ सदियों से चली आ रही रुढ़िवादी सोच की कुछ बंदिशों से मुक्ति पा चुकी है, यह हकीकत है किन्तु उनकी बंदिशों, कमतरी और दुराव के क्षेत्र इतने अधिक है कि वह पुरुषों की बराबरी अभी तक नहीं कर पाईं हैं। ''देश की कुल आबादी में महिलाओं का हिस्सा 48 फीसदी है, लेकिन देश के श्रम बल में महिलाओं का योगदान आबादी के मुकाबले बहुत कम है। वर्ष 2017 में जारी वर्ल्ड बैंक की रिपोर्ट के मुताबिक भारत में केवल 27 फीसदी महिलाएँ ही कामकाजी हैं। भारत की 2011 की जनगणना के आंकड़ों के मुताबिक देश में महिला कामगारों की संख्या 14 करोड़ 98 लाख है। इनमें 12 करोड़ 18 लाख महिलाएँ ग्रामीण इलाको में काम करती है। गाँवों में काम करने वाली 12 करोड़ 18 लाख महिलाओं में से 97.4 फीसदी महिलाएं कृषि क्षेत्र में खेती बारी से जुड़े कामकाज करती हैं। वर्ष 2011 के जनगणना के आँकड़ो को माने तो देश में उपलब्ध कुल कामगारों में महिलाओं की हिस्सेदारी 25.51 फीसदी है। यह आँकड़े वर्ष 2001 के आँकड़ो के मुकाबले गिरावट दर्शाते हैं। वर्ष 2001 में देश में महिला कामगारो की हिस्सेदारी 25.63 फीसदी हुआ करती थी। हालंकि 2011 के आँकड़े 1991 के मुकाबले थोड़े बेहतर जरुर हैं क्योंकि 1991 में महिला कामगारों की हिस्सेदारी 22.27 फीसदी थी। ''महिला कामगारों के इन आँकड़ो के पीछे की बड़ी वजह कामकाज के दौरान सामाजिक सुरक्षा के अभाव को माना जाता है।

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[6] . दैनिक जागरण में छपा नाइश हसन का लेख 'मज़हबी तहखाने में बंद कुरीतियाँ'

[7] .दैनिक जागरण में छपा नाइश हसन का लेख 'मुताह निकाह से मुक्ति का समय

[8] . योजना मासिक पत्रिका अंक 7 जुलाई 2017–स0 ऋतेष पाठक पृ0 41

अंतर्राष्ट्रीय श्रम संगठन के मानको के आधार पर सामाजिक सुरक्षा के कई आयाम हैं। जैसे स्वास्थ्य, बेरोज़गारी, वृद्धावस्था पैंशन व मातृत्व से जुड़ी सुविधाएँ या रोजगार में रहते हुए अपंगता। राष्ट्रीय हित में महिलाओं के योगदान को देखते हुए भारत सरकार ने कई योजनाएँ बनाई। जिनमें से समान वेतन अधिनियम 1974 महत्वपूर्ण है। इसके अनुसार समान कार्य करने पर समान वेतन का प्रावधान है लेकिन अंतर्राष्ट्रीय श्रम संगठन 2017 की रिपोर्ट के आधार पर देखा गया कि भारत मे पुरुषों को महिलाओं के मुकाबले एक ही काम करने के लिए औसतन 30 फीसदी ज्यादा वेतन दिया जाता है।

शिक्षा और स्वास्थ्य के क्षेत्र में भी स्त्रियों की संख्या कम होने का मुख्य कारण भारत में यह दुराव और रुढ़िवादी सोच ही हैं। यू तो भारत में परास्नातक और व्यवसायिक कोर्स में तेजी से लड़कियों की संख्या में बढ़ोत्तरी हुई है, किन्तु वैष्विक स्तर पर इसके परिणाम निराशाजनक ही हैं। OECD Health Statistics 2018 के अनुसार वैश्विक स्तर पर महिला डॉ0 के आँकड़ो का प्रतिशत इस प्रकार है–

देश	प्रतिशत
लातविया	74.3%
ऐस्टोनिया	73.3%
स्लोवेनिया	61.6%
फिनलैंड	58.3%
स्लोवेक गण राज्य	57.3%
पॉलैंड	56.5%
हंगरी	54.5%
चेक गणतंत्र	54.5%
पुर्तगाल	53.4%

इन शीर्ष 35 देशों में जापान सबसे निम्न स्तर पर है जिसमें महिला डॉ0 प्रतिशत 20.3 प्रतिशत हैं। दुःखद यह है कि भारत में महिला डॉ प्रतिशत इतना कम है कि यह आँकड़ों मे शामिल ही नहीं। इसके पीछे मुख्य कारण यह नज़र आता है कि भारत में लड़कियों को मेडिकल और इंजीनियरिंग जैसी महंगी शिक्षा कम दिलाई जाती है।

महिलाओं के प्रति यह दुराव सदियों पुराना हैं यह बात सर्वविदित है किन्तु आज जब देश में ''बेटी बढ़ाओ बेटी बचाओं'' के नारे तथाकथित जनसेवकों के मुँह से अक्सर सुनने को मिलते हैं उसी देश में बेटियों के हक में इतनी असमानता देखकर ऐसे नारे बेटियों पर व्यंग्य करते प्रतीत होते हैं।

भारत एक ऐसा गणराज्य है जिसमें देश के इतिहास में पहली बार सभी नागरिकों को समानता का दर्जा दिया गया। औरतो को भी। लेकिन यह संवैधानिक समानता आज भी औरतो के जीवन की वास्तविकता नहीं हैं। यह असमानता लगभग सभी क्षेत्रों में है। भारत जैसे विशाल देश के लिए यह दुर्भाग्यपूर्ण है। असमानता की यह खाई तब और गहरी हो जाती है जब संवैधानिक पद पर विराजमान लोग पुरुष प्रधान समाज की मानसिकता से ग्रस्त दिखाई देते है। इस गणतंत्र के कुछ हफ्तों पहले जनरल रावत का महिलाओं के फौज मे भर्ती होने और मोर्चे पर लड़ने के प्रश्न को लेकर यह जवाब देना ' इसके लिए सही समय नहीं आया है' संविधान की अवहेलना करने जैसा है। उन्होंने यह भी कहा है कि ' शहरों की बात अलग है सेना में बहुत से सैनिक ग्रामीण परिवेश के है वह किसी महिला को अपनी अफसर स्वीकारने में दिक्कत करेंगें। अगर फौज में भर्ती महिलायें गर्भवती हो गयी तो उन्हें लम्बी छुट्टी देनी पड़ेगी जिससे दिक्कत होगी''[9] जबकि हमें ज्ञात होना चाहिए की आज से 80 साल पहले सुभाष चन्द्र बोस ने अपनी आजाद

[9] . अमर उजाला में सुभाशिनी सहगल अली के आलेख 'मजबूत इरादे से आता है बदलाव' दिसम्बर 2019

हिन्द फौज में महिला टुकड़ी का निर्माण किया था वो महिलाये भी पुरुष जैसे ही कड़ी मेहनत करती थी। उन्होने कई दिन भूखे रहकर जंगलों में गुजारे और उनके पुरुष साथी ने उनसे कोई बदसुलूकी नहीं की।

संविधान बनने से पहले बोस ने संवैधानिक समानता को स्वीकार किया और उसे व्यवहार में लाकर भी दिखाया यह आज के तथाकथित समाज और संविधान के उद्देश्यों के विपरीत चलने वाले बुद्धिजीवियों के लिए सबक है।

वर्तमान में ऐसा दौर चल रहा है जहाँ प्रत्येक दूसरा व्यक्ति महिला सशक्तिकरण की बात करता दिखाई देता है, पर क्या आज भी कुछ चुनिंदा महिलाओं को छोड़ कर बाकी महिलाएँ सशक्त हैं। पिछले दिनों बिहार के शैल्टर होम में बच्चियों के साथ जो हुआ वह इस स्वतंत्र देष में परतन्त्रता की बेड़ियों से बंधी उन बच्चियों की, उन की सिसक की, उनकी लाचारी की ऐसी दर्दनाक तस्वीर हमें दिखाता है जो शब्दों में लिखना भी कठिन हैं। सीबीआई की रिपोर्ट के अनुसार– ''बच्चियों को नींद की गोलियाँ दी जाती थी, और वह जब बेहोश होजाती थी तब कई 'अंकल' उन का यौन शोषण करते थे।

सीबीआई रिपोर्ट के आधार पर कानूनी कार्यवाही हुई लेकिन इसका प्रचार मीडिया में बहुत कम हुआ। जिसके चलते हो सकता है इस काम में लगे दरिंदो को वैसी सजा न मिले जैसी मिलनी चाहिए। आखिर बेजुबान महिलाओं की आवाज समाज के समक्ष कौन लायेगा ? इसमें पहल उन सशक्त महिलाओं को ही करनी होगी जिनको कुछ अधिकार प्राप्त हैं। अगर 'मीटू' के चलते महिलाये एक मंत्री को हटा सकती है तो सोचिए क्या नहीं कर सकती? क्योंकि जब तक महिलायें अपनी शक्ति को नहीं पहचानेंगी समाज का रवैया उनके प्रति नहीं बदलेगा। जब तक समाज अपने रवैये को नहीं बदलेगा तब तक बेहतरी की उम्मीद नहीं की जा सकती।

इतिहास मे स्त्रियों की हर पीढ़ी के पास संघर्ष की निश्चित परंपरा मौजूद हैं। इस संघर्ष के फलस्वरुप उनकी स्थिती मे परिवर्तन भी आया है, साक्षरता दर बढ़ी है। हरियाणा में कन्याओं का लिंग अनुपात भी सुधरा है पर गुजरात के पाटीदार समाज में बिगड़े लिंग अनुपात में स्थिति पर वही प्रश्न चिह्न लगा दिया है यानि समाज का परंपरागत नज़रिया अब भी कायम है। जो कोई भी बदलाव नहीं चाहता है, पर अब आवश्यकता है बदलाव लाने की, क्योंकि बदलाव बिना मुक्ति संभव नहीं हैं।

समाज मे जब भी कोई बदलाव आता है उसमें कोई न कोई अपवाद भी जोड़ दिया जाता है। आई0पी0सी0 की धारा 375 (2) में यह अपवाद जोड़ना की 15–18 वर्ष तक की पत्नी से शारीरिक संबंध बनाना दुष्कर्म की श्रेणी में नहीं आता बाल विवाह जैसे घोर सामाजिक बुराई को अप्रत्यक्ष रुप से कानूनी मान्यता प्रदान करने जैसा है।

स्त्रियों के हित में ऐसी बाधाएँ डालने की यह बीमारी इतनी पुरानी हो गई है कि शीघ्रता से अपनी जड़े नहीं छोड़ेगी। क्योंकि आज भी उनकी दासता को कायम रखने के लिए कभी धर्म गुरु, कभी कानून के जानकार और कभी बुद्धिजीवी कोई अपवाद जोड़ते ही रहते हैं यह केवल किसी एक जाति धर्म या तबके के साथ नहीं होता बल्कि संपूर्ण स्त्री जाति इस दंष को झेलती रहती है।

स्त्रियों के हित मे तरह–तरह की बाधा डालने की यह तरकीब सदियों से आज़मायी जा रही हैं। इन सबसे उभरने के लिए बहुत संघर्ष भी किये गये हैं जिन्हें जारी रखना होगा। नारीवादियों और नारियों के संघर्ष का मूल स्वर यही है कि उन्हें बराबरी चाहिए। क्योंकि स्त्री भी पुरुष के समान ही संपूर्ण मनुष्य है। उसके साथ भी वैसा ही बर्ताव किया जाये। समान शिक्षा दिलाई जाये, सभी क्षेत्रों में आगे बड़ने के लिए प्रोत्साहित किया जाये, नौकरियों में समान काम करने का समान वेतन दिया जाये, शादी होने पर पुरुष को स्त्री का पति नहीं बल्कि साथी माना जाये। मासूम बच्चियों लाचार स्त्रियों के साथ दरिंदगी करने वालों के खिलाफ एक जुट होकर आवाज़ उठाई जाये और यह आवाज तब तक धीमी न पड़े जब तक दरिंदो को उसकी सज़ा न मिले। कानून में भी ऐसे बदलाव किये जाये जिसमें रेप जैसे जघन्य अपराध करने वालों को जल्द से जल्द सज़ा मिले जिससे किसी भी नारी का बार–बार अपमान न हो। वर्तमान समय में इन सभी बदलावों की जरुरत हैं। इसकी शुरुआत प्रत्येक मनुष्य को अपने 'स्वयं' से करनी होगी। स्त्रियों की आजादी का यह दुरुह मार्ग तभी सुगम बन सकेगा।

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आधुनिक प्रवृत्तियों एवं नवीन सौन्दर्य सिद्धान्तों से प्रेरित कम्प्यूटर बनाम डिजिटल आर्ट

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आर0जी0(पी0जी0) कॉलेज, मेरठ

जब भी मानव में चेतना जागी, वह अपने आसपास के संसार के विषय में जागरूक हुआ, उसने अपनी जिज्ञासु दृष्टि चारों ओर डाली तथा स्वंय के अस्तित्व, तथा संसार के अस्तित्व को अर्थ देना चाहा। स्वंय को जानने, संसार को जानने की यह उत्कंठा ही उसकी प्राचीनतम कलाकृतियों में प्रदर्शित होती है तथा इसी उत्कंठा ने कला को जन्म दिया। यही कला धीरे–धीरे विकसित होती गयी तथा समय–समय पर कला के विभिन्न अर्थों में परिभाषित होती रही। प्रागैतिहासिक काल से लेकर आधुनिक काल तक कला के अनेक रूप विकसित हुए जिनमें कम्प्यूटर कला/डिजिटल कला मुख्य है।

आधुनिक कला चित्रकारों, मूर्तिकारों, लेखको और कलाकारों के बीच विचारो की अभिव्यक्ति की एक विकसित प्रवृत्ति का प्रतिनिधित्व करती है – जो व्यक्तिगत और सामूहिक रूप से कला के नवीन आयाम स्थापित करती है हालांकि आधुनिक कला की शुरूआत लगभग सन् 1850 में यथार्थवाद के आगमन के साथ मानी जाती है। कला के उस दृष्टिकोण और शैली को बीसवीं शताब्दी में परिभाषित किया गया था। प्रत्येक नयी शैली के कलाकारों ने कला की अनेक मूल प्रवृत्तियां निर्धारित की तथा यहीं कलाकार इन कला शैलियों के प्रतिनिधि बने। यथार्थवाद से शुरू होकर आज कला डिजिटल (कम्प्यूटर कला) के रूप में हमारे समक्ष उपस्थित है। कम्प्यूटर कला मुख्यतः तकनीक आधारित कला है जिसमें कम्प्यूटर एवं सॉफ्टवेयर ही कलाकार के कार्य क्षेत्र के रूप में कार्य करते है।

कम्प्यूटर कला की अभिव्यक्ति का प्रारम्भिक स्वरूप हमें फोटोग्राफी के रूप में दिखायी देता है। सन् 1826 में ये फ्रांस के जोसेफ निप्से के द्वारा सर्वप्रथम प्रकाश द्वारा स्थायी चित्र के निर्माण से फोटोग्राफी के स्थायी स्वरूप में दिखायी देता है। इसके पश्चात् विलियम हेनरी और फॉक्स टालबॉट, डेग्यूरे और फ्रेडरिक आर्चर, आदि ने फोटोग्राफी के विकास में अपना महत्वपूर्ण योगदान दिया। सन् 1888 में अमेरिकी जार्ज ईस्टमैन ने सर्वप्रथम रोल फिल्म और इसके लिए कैमरे का निर्माण किया और यही से आधुनिक फोटोग्राफी का जन्म हुआ। बीसवीं सदी के अन्त तक फोटोग्राफी का प्रभुत्व रहा लेकिन इक्कीसवीं सदी के प्रारम्भ में ही फोटोग्राफी के स्थान पर डिजिटल फोटोग्राफी का प्रयोग प्रमुखता से किया जाने लगा। यही से कला की नवीन प्रवृत्तियों का सौंदर्य सिद्धान्तों के साथ एक नये रूप में प्रयोग किया जाने लगा तथा कला के नवीन स्वरूपों की अभिरचना प्रारम्भ हो गयी। फोटोग्राफी मुख्यतः प्रकाश द्वारा छवियों के निर्माण की कला है या फिर इससे भी अधिक उपयुक्त परिभाषा ''प्रकाश तथा चित्रकारी''[1] होगी। चित्रकारी की भांति ही फोटोग्राफी भी एक प्रयोगात्मक साधन (tool) और कलात्मक क्रियाकलाप (art form) है। इसके साथ–साथ ही आज के आधुनिक युग में फोटोग्राफी का प्रयोग मुख्यतः प्रत्येक क्षेत्र में किया जाता है जैसे – पत्रकारिता, विज्ञान, विज्ञापन, कला आदि की अभिव्यक्ति का प्रमुख माध्यम माना जाता है।

उन्नीसवीं सदी में अनेक महत्वपूर्ण आविष्कार हुए, जिनका हमारी जीवनशैली पर अत्याधिक प्रभाव पडा, इन्ही आविष्कारों में मुख्यतः फोटोग्राफी भी सम्मिलित थी। कलाकार सदैव ही प्रकृति प्रेम के अधीनस्थ कार्य करता है एवं उनकी प्रबल इच्छा होती है कि वह प्रकृति को उसके मूलस्वरूप में प्रदर्शित करे। कलाकार की इसी प्रबल इच्छा के कारण फोटोग्राफी का विकास हुआ। ''इसे अपने अस्तित्व में आने के लिए लगभग तीन सौ वर्ष लगे''[2] फोटोग्राफी के सशक्त माध्यम के रूप में विकसित हो जाने के पश्चात् बीसवीं शताब्दी में कम्प्यूटर कला (डिजिटल आर्ट), कला के नवीनतम माध्यम के रूप में उभरकर आया। कम्प्यूटर कला के आ जाने से कलाकारों को प्रयोग के लिए एक अत्यन्त विशाल धरातल प्राप्त हुआ।

तकनीकों के बढते हुए प्रभुत्व के कारण सम्पूर्ण विश्व की तकनीकी क्रान्ति में हुए बदलाव, कला के क्षेत्र में भी प्रबल रूप से उत्पन्न हुए। 'सन् 1970' के दशक से ही डिजिटल आर्ट को सम्बोधित करने के लिए कम्प्यूटर कला और मल्टीमीडिया कला जैसे नाम दिये गये।[3] कम्प्यूटर कला को न्यू मीडिया आर्ट के अंतर्गत भी रखा जाता है।

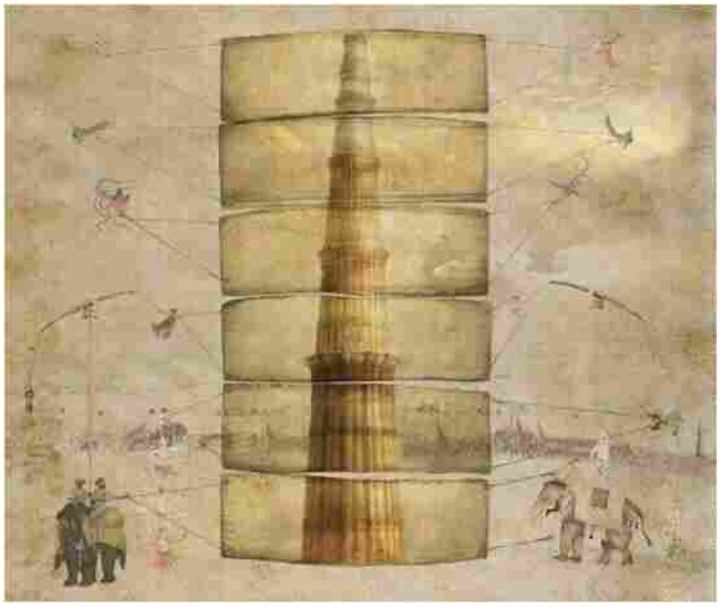
कुछ आरम्भिक प्रतिरोध के बाद डिजिटल तकनीक पेण्टिंग, रेखांकन, मूर्तिकला, और संगीत कला आदि में रूपांतरित हो गयी जबकि नेट आर्ट, डिजिटल इंस्टालेशन, आर्ट और आभासी यथार्थवाद (virtual reality) को प्रमुख कलात्मक अभ्यासो (artistic practice) के अंतर्गत रखा जाता है। मुख्यतः डिजिटल कलाकार शब्द का प्रयोग सामान्यतः उस कलाकार के लिए किया जाता है जो कलाकृतियों का निर्माण डिजिटल तकनीक द्वारा करता हो। वास्तव में कम्प्यूटर कला, समकालीन कला का वह परिष्कृत रूप है जिसमें कलाकृतियों के विस्तृत रूप की परिकल्पना के लिए तकनीक का प्रयोग किया जाता है। डिजिटल आर्ट तकनीक का प्रयोग मुख्यतः विज्ञापन और दृष्टि संबंधी प्रभावों को उत्पन्न करने के लिए किया जाता है। जैसे सर्वप्रथम वाल्ट डिज्नी के कलाकारों और तकनीकज्ञों (technicians) ने दृष्टि संबंधी प्रभाव (Visual Effects) को प्रदर्शित किया था[4] इस तकनीक का प्रयोग इन्होनें कॉमिक स्ट्रिप तक सीमित एनिमेशन की दुनिया के विस्तार के लिए किया था। सन् 1930 में FANTASIA के निर्माण के साथ सर्वप्रथम इस तकनीक का विस्तार किया गया था। डिज्नी कलाकारों ने 1940 में FANTASIA के विमोचन (Release) तक, अनेक नवीन माध्यमों व तकनीकों को अन्वेषण (explore) कर लिया था।[5] इन प्रयोगों के साथ इस फिल्म में शास्त्रीय संगीत, पेण्टिंग, नृत्य और अभिनय के नवीनतम स्वरूप को कार्टून ओर मनुष्यों के साथ मिलाकर प्रदर्शित किया गया। सन् 1940 में प्रदर्शित इन नवीन प्रयोगों को आम–जनमानस के मध्य अत्याधिक पसंद किया गया जिससे कम्प्यूटर कला के बढते वर्चस्व को एक नया आयाम प्राप्त हुआ। सन् 1965 में इसी क्रम में आगे बढते हुए सोनी कार्पोरेशन द्वारा वीडियो आर्ट की शुरूआत की गयी। वीडियो आर्ट की शुरूआत सोनी कार्पोरेशन द्वारा प्रथम वीडियो कैमरा लान्च करने के बाद हुई। आरम्भिक वीडियो, यद्यपि सरल थी किन्तु धीरे–धीरे कलाकारों ने इनमें नाटकीय प्रभाव देने आरम्भ कर दिये। वीडियो आर्ट के संकुचित इतिहास में कोरियन कलाकार नैम जून पाइक को एक पथ–प्रदर्शक के रूप में देखा जाता है। ये बोस्टन की एक पब्लिक टी0वी0 लैब में कार्य करते थे यहीं पर इन्होनें प्रथम वीडियो संश्लेषक का निर्माण किया।

डिजिटल कला पूर्ण रूप से कम्प्यूटर द्वारा निर्मित तथा अन्य माध्यमों जैसे स्कैन फोटोग्राफ, या वैक्टर ग्राफिक, द्वारा निर्मित भी हो सकती है। सन् 1985 में न्यूयार्क में लांच Amiga (vesxk) कम्प्यूटर के साथ एंडी वारहोल ने अपनी डिजिटल कलाकृतियों/ग्राफिक्स का निर्माण किया। वारहोल ने मुख्यतः छवियों (image) में रंग का अद्भुत प्रदर्शन किया है। इनके द्वारा बनायी गयी डिजिटल कलाकृतियों को मुख्यतः OP ART के अंतर्गत रखा जाता है।

आज के इस आधुनिक युग में प्रत्येक क्षेत्र में डिजिटल ग्राफिक्स की आवश्यकता है, फिर चाहे वह व्यावसायिक क्षेत्र हो अथवा व्यावहारिक। तकनीकी के बढ़ते प्रभाव से लगभग प्रत्येक व्यक्ति प्रभावित है तथा प्रत्येक स्तर पर तकनीकी का प्रभाव प्रत्यक्ष रूप से दिखायी पडता है। इस तकनीकी दौर में कला का नवीन स्वरूप कम्प्यूटर कला के रूप में हमारे समक्ष विद्यमान है। कम्प्यूटर कला ने कलाकार को उसकी इच्छा के अनुरूप कार्य करने के लिए असीमित साधन दिये है। अब तक जहां कलाकार के पास कार्य करने के सीमित संसाधन उपलब्ध थे अब वह असीमित हो गये है। पहले यदि कार्य करते समय कलाकार द्वारा प्रयुक्त रंग कलाकृति के

अनुरूप नही लगता था तो उस रंग को बदलने के लिए कलाकार को अत्याधिक प्रयत्न करने पडते थे जबकि कम्प्यूटर कला में यह कार्य सेकेण्ड में हो जाता है जिसके कारण कम्प्यूटर कला द्वारा कला में सुविधा एवं विस्तृता अधिक हो गयी है। इसके साथ ही कम्प्यूटर कला में प्रयोग करने के लिए धरातल अधिक विस्तृत होता है, कलाकार कलाकृति का निर्माण करते समय असंख्य प्रयोग कर सकता है। कम्प्यूटर कला में प्रयोगों की कोई बाध्यता नही है।

सूक्ष्म रूप में कम्प्यूटर प्रक्रिया द्वारा की गयी प्रक्रिया को ही डिजिटल आर्ट कहते है। जैसे – कम्प्यूटर प्रोग्रामिंग, माइक्रोकन्ट्रोलर ऐसा इलेक्ट्रॉनिक सिस्टम जो किसी इनपुट को आउटपुट में बदलने की क्षमता रखता हो आदि। डिजिटल टेक्स्ट डाटा, ऑडियो, वीडियो रिकार्डिंग आदि को डिजिटल आर्ट नही माना जा सकता लेकिन वो किसी इन्फोर्मेशन आर्ट का हिस्सा जरूर हो सकते है। जब किसी पेण्टिंग के समान ही कोई आर्ट वर्क तैयार होता है तो वह डिजिटल पेण्टिंग कहलाता है लेकिन उसमें कम्प्यूटर द्वारा कोई सॉफ्टवेयर या डिजिटल आउटपुट ही होता है।



कम्प्यूटर कला, मुख्यतः कलाकार और दर्शक के मध्य एक सेतु का कार्य करती है जो दर्शक के मन में उत्पन्न उद्‌गारों को कलाकारों द्वारा निर्मित कलाकृतियों की विस्तृत व्याख्या करने के लिए प्रेरित करती है। कला के साथ तकनीक का यह सम्बन्ध कलाकार को, कला को ओर अधिक सृजनात्मक और कलात्मक रूप देने के लिए प्रेरित करता है। कप्यूटर द्वारा कार्य करते समय ही कलाकार यह आभास कर सकता है कि अमुक कलाकृति की कल्पना वह और भी अधिक सृजनात्मकता के साथ कर सकता है। तकनीक के साथ कला को ओर भी अधिक परिष्कृत रूप में प्रस्तुत किया जा सकता है। एक बार जब दर्शक कलाकृति का मूल विचार जान जाता है तो उसके पास कलाकृति के प्रति अधिक स्पष्ट विचार होता है कि यह कलाकृति समाज के प्रति किस प्रकार सहायक सिद्ध हो सकती है तथा इस कलाकृति का सामाजिक और सांस्कृतिक व्यवहार किस प्रकार का होगा।

किसी भी दर्शक के लिए किसी कलाकृति को देखते समय उसकी अपनी विचारधारा होती है जबकि उस कलाकृति का निर्माण करते समय कलाकार की विचारधारा कुछ और होती है।

आज अनेक कलाकार कम्प्यूटर को माध्यम बनाकर कलाकृतियों का निर्माण कर रहे है जिनमें अर्चन नायर, रविन्द्र दत्त आदि कलाकार प्रमुख है। रविन्द्र दत्त मुख्यतः दिल्ली के कलाकार है। ये अत्याधिक कल्पनाशील कलाकार है और इनके कार्य मुख्य रूप से कल्पना पर ही आधारित होते है। इनकी कलाकृति Alexander II dks 2018 Indian Art Fair में प्रदर्शित किया गया था तथा इस कलाकृति में इलाही मीनार को दिखाया गया है, जो कुतुब मीनार के बराबर में बनी हुई अधूरी मीनार है। इस मीनार के बीच में ही कुतुब मीनार तथा पीछे जश्न मनाते व्यक्तियों का समूह दिखाया है। इनकी कलाकृतियां देखने पर वह पारंपरिक पेण्टिंग का प्रभाव उत्पन्न करती है।

डिजिटल आर्ट के ही क्रम में कार्य करने वाले अर्चन नायर मुख्यतः दिल्ली के कलाकार है किन्तु अब बर्लिन (जर्मनी) में रहते है। इनकी कलाकृतिया मुख्य रूप से अत्याधिक रंगों को समाहित किये होती है तथा काल्पनिक विषयों एवं प्रतीक चिहनों से परिपूर्ण होती है। हाल ही में इनकी कलाकृतियों को बर्लिन के प्रकाश उत्सव (Berlin Festival of Lights) में प्रदर्शित किया जा रहा है जो

5 अक्टूबर – 14 अक्टूबर 2018 तक Humboldt University (हम्बोल्ट विश्वविद्यालय) में दिखायी गयी है। इनकी कलाकृतियाँ मानवीय संवेदनाओं से परिपूर्ण होती है तथा अनेक रहस्यों को अपने अंदर समाहित किये होती है।

निष्कर्षः– वस्तुनिष्ठा का पुनः प्रदर्शन तथा डिजिटल कला को अस्तित्व में आने के लिए लगभग पचास वर्षों का समय लगा। डिजिटल कला के जनक मुख्य रूप से कलाकार ना होकर अपितु कम्प्यूटर प्रोग्राम तथा कम्प्यूटर के साथ नित नवीन प्रयोग करने वाले सामान्य व्यक्ति थे। लंदन के डिजिटल आर्ट म्यूजियम के अनुसार सन् 1956 – सन् 1986 तक कम्प्यूटर कला के प्रथम चरण का अनावरण हुआ था।[7] दूसरे चरण में सन् 1986 – 1996 के मध्य सॉफ्टवेयर के प्रभावी हो जाने के कला के द्वितीय चरण का आर्विभाव माना जाता है।

सन् 1966–2006 के मध्य का समय कम्प्यूटर कला के लिए बहुत महत्वपूर्ण माना जाता है क्योंकि इसी समय डिजिटल आर्ट/कम्प्यूटर कला को कला के नवीन रूप और तकनीक के विस्तृतीकरण के रूप में कार्य करने के लिए सुविकसित रूप मिला।

कम्प्यूटर कला को आज संसार में नवीन कलाओं के बदलाव के रूप में फलित हुई कला के रूप में जैसे पेण्टिंग, मूर्तिकला आदि की समकालीन कला समझा जाने लगा है। कम्प्यूटर कला को पारंपरिक और मुख्य रूप से समकालीन कलाकारों के बीच एक सेतु के रूप में देखा जाने लगा है।

संक्षिप्त रूप में ये कलाएँ सदैव कलाकार और दर्शक के मध्य एक सशक्त सम्प्रेषणकर्ता के रूप में कार्य करती हैं।

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डिजिटल लेनदेन : चुनौतियाँ, जोखिम, सावधानियाँ एवं सुझाव

डा0ए0के0मीतल

(विभागाध्यक्ष, वाणिज्य संकाय)

(साहू जैन कालेज नजीबाबाद)

डा0अनुभा मीतल

सामान्यतया बिना रोकड़ के नकद आदान–प्रदान के जब कोई व्यवहार किया जाता हे अर्थात भुगतान किसी इलैक्ट्रोनिक माध्यम से किया जाता है तो इसे डिजिटल या कैशलैस लेनदेन कहा जाता है । भारत में इसका अधिक एवं तीव्र प्रचलन 1 जुलाई 2015 से हुआ जब भारत सरकार द्वारा "डिजिटल इंडिया" के नाम से एक मुहिम प्रारम्भ की गयी , परन्तु इसकी महत्ता एवं वास्तविक आवश्यकता का ज्ञान भारत में नवम्बर 2016 को हुआ जब सरकार द्वारा विमुद्रीकरण किया गया । अन्तर्राष्ट्रीय स्तर पर विभिन्न देशों में यह चलन काफी पहले से हो गया था तथा उन्नत देशों मे नगद लेनदेनों की संख्या नगण्य प्रायः है । डिजिटल व्यवहारों मे इन्टरनेट बैंकिग ,मोबाइल बैंकिग ,डेबिट कार्ड ,ई–वालेट आदि को सम्मिलित किया जाता है । डिजिटल भुगतान व्यवस्था वर्तमान समय की मांग है तथा वैश्विक परिदष्श्य में अपने अस्तित्व को ,प्रतिस्पर्धा के इस युग में बनाए रखने के लिए एक अनिवार्य आवश्यकता भी है। व्यवहार मे डिजिटल लेनदेन अत्यन्त लाभकारी एवं सुरक्षित व्यवस्था है, इससे कम समय एवं कम लागत में व्यापक लेनदेन किए जा सकते है । प्रस्तुत आलेख में डिजिटल लेनदेनों का आकलन भारतीय संदर्भ में तीन विशिष्ट श्रेणियों में किया गया है – चुनौतियां, जोखिम ,सावधानियाँ एवं सुझाव ।

चुनौतियां :– भारत एक कृषि प्रधान देश है जिसकी 80 प्रतिशत से भी अधिक जनसंख्या अभी भी गांवो में निवास करती है। अधिकांश जनसंख्या रूढ़िवादी ,अशिक्षित एवं इलैक्ट्रोनिक पद्धतियों से कोसों दूर है । इन्टरनेट की सुविधाएँ निर्बाध रूप से सभी क्षेत्रों में उपलब्ध नही है ,कनेक्टिविटी के बाधित होने की समस्या आम है ,वैबसाइट का हैंग हो जाना , उपयुक्त जानकारी का अभाव आदि अनेको ऐसे तथ्य , ऐसी चुनौतियां है जो भारत में डिजिटल क्रान्ति के मार्ग की बाधायें है । भारत में डिजिटल लेन–देनों में सरकार, जनता एवं अन्य पत्रकारों समक्ष आने वाली चुनौतियों को बिन्दुवार निम्न प्रकार समझाया जा सकता है ।

शिक्षा में समुचित ज्ञान का अभाव :– भारत में शिक्षा के प्रचार प्रसार के बाद भी जनता का एक बड़ा वर्ग विशेषकर ग्रामीण एवं पिछडे क्षेत्रों की महिलाऐं अशिक्षित हैं । ऐसी स्थिति में उनको डिजिटल लेनदेन की बात का ज्ञान प्रदान करना अति दुष्कर कार्य है । समुचित ज्ञान के अभाव में वह परम्परागत लेनदेनों को ही श्रेष्ठ मानते है ।

इन्टरनेट की सुविधाओं का अभाव – भारत इन्टरनेट स्पीड के संदर्भ में विश्व में 114 वें नं0 पर है तथा पड़ोसी देश बंग्लादेश और फिलीपींस भी इस तुलना में उससे बेहतर है। हमारे देश में सरकार द्वारा व्यापक प्रचार प्रसार एंव विभिन्न योजनाओं को लागू किये जाने के पश्चात भी विभिन्न क्षेत्रों में इन्टरनेट सेवाऐं अभी तक उपलब्ध नहीं है इसके अतिरिक्त जहां यह उपलब्ध भी है वहां भी यह निर्बाध नहीं है कभी कनेक्टिविटी का चले जाना, कनेक्टिविटी या सेवाओं का कम स्पीड (स्लो होना) से कार्य करना , बिजली कटौती आदि आम जनमानस के समक्ष डिजिटल लेनदेन में आने वाली सामान्य समस्या हैं।

लेनदेन (ट्रान्जैक्शन) शुल्क – हमारे देश में आम नागारिक एवं जनता जो दैनिक मजदूरी करके अपना भरण–पोषण करते है अथवा अल्प वेतन भोगी है उनका रूझान ट्रान्जैक्शन शुल्क के कारण डिजिटल लेनदेनों की ओर कम होता हैं। सभी बैंकिंग संस्थाएं अथवा गेट–वे चैनल ,डेबिट कार्ड, क्रेडिट कार्ड की सुविधाऐं डिजिटल लेनदेनों के लिए प्रत्यक्ष एंव अप्रत्यक्ष रूप से कुछ न कुछ शुल्क वसूल करती हैं जो नकद लेन देनों की तुलना में जनमानस को तार्किक नहीं लगता और वह इस व्यवस्था से विरत हो जाते हैं ।

डिजिटल या इन्टरनेट फॉड : भारत में यद्यपि डिजिटल लेनेदेन व्यवस्था काफी व्यापक रूप ले चुकी है परन्तु सुरक्षा प्रावधानों को लेकर अभी भी इसे पूर्ण सक्षम नही बनाया जा सका है । डेबिट कार्ड , क्रेडिट कार्ड,इन्टरनेट बैकिंग या आनलाइन भुगतान के संबंध में धोखाधड़ी, जालसाजी की खबरें आती ही रहती है । आज कल बैंकों, आयकर विभाग या अन्य सरकारी विभागों के नाम से फर्जी कॉल करके डरा–धमका कर ,फुसलाकर या विभिन्न प्रलोभन और लालच देकर गोपनीय जानकारी प्राप्त करने और फिर उसका दुरूपयोग कर व्यक्ति के खातों से रूपयों को निकाला जाना बहुत प्रचलित हो रहा है

परम्परागत विचारधारा : हमारे देश में पुरातन विचारधारा वाले बुजुर्ग, ग्रामीण क्षेत्र में रहने वाले रूढिवादी लोग किसी भी परिस्थिति में किसी भी नवीनता या नवोन्मेष को स्वीकार करने या अंगीकार करने को तैयार नहीं होते उनको यह सब नए लोगों के चौंचले आडम्बर और बोझ लगता है । उनकी यह मनोवर्षति भारतीय सदंर्भ में डिजिटल लेनदेनों के मार्ग की एक बड़ी बाधा एवं चुनौती है ।

प्रमुख जोखिम : भारत में डिजिटल लेनदेनों की सुरक्षा व्यवस्था अभी पूर्णतः सक्षम न होने के कारण जोखिम की मात्रा अधिक रहती है यह जोखिम निम्न प्रकार बताए जा सकते है :

गोपनीयता भंग होने का जोखिमः भारतीय संदर्भ मे डिजिटल लेनदेनों में सुरक्षा प्रबन्धों के दृढ़ न होने के कारण प्रयोगकर्ता की गोपनीय सूचनाओं के लीक होने का जोखिम रहता है । यदि यह सूचनाएं किन्हीं गलत हाथों में पहुच जाएं तो उनके दुरूपयोग का भय रहता है साथ ही इनका प्रयोग करके प्रयोगकर्ता को, हैकर्स आदि आर्थिक हानि भी पहुंचा सकते है ।

आइडेंटिटी की चोरी का जोखिम :सामान्यत अभी हम डिजिटल लेनदेनों को करने के अभ्यस्त नहीं हैं जिसमे हमें सबसे बडा जोखिम आइडेंटिटी चोरी का रहता है और इसी कारण कम–पढे लिखे ही नहीं वरन् बहुत पढे–लिखे और योग्य व्यक्ति भी ,फिशिंग ट्रैप, में फंस जाते है ।

मोबाइल गुम होने या चोरी होने का जोखिम : डिजिटल लेनदनों की स्थिति में व्यक्ति की मोबाइल पर निर्भरता अत्यधिक हो जाती है । रोकड़ विहीन लेनदनों के चलते नकद रोकड़ आवश्यक व्यवहारों के लिए भी व्यक्ति के पास नहीं रहती । ऐसी स्थिति में मोबाइल का गुम होना या चोरी होना बहुत बड़ी समस्या उत्पन्न कर सकता है । एक ओर सूचनाओं के दुरुपयोग का खतरा दूसरी नकद रोकड़ पर्याप्त न होने कारण लेनदेन क्रय विक्रय और भुगतान की समस्या के कारण दोहरे जोखिम की स्थिति उत्पन्न होने का खतरा हो सकता हैं।

अधिक एंव अनावश्यक व्यय की मनः स्थिति : डिजिटल भुगतानों में विभिन्न कार्डो , वालेट आदि पर एक माह या अधिक क्रेडिट की सुविधा रहती है अथवा समय –समय पर विभिन्न छूट आदि की स्कीम चलती रहती है जिससे प्रयोगकर्ता उन स्कीमों का लाभ उठाने के चक्कर में या क्रेडिट सुविधा उपलब्ध होने कारण अपेक्षाकष्त अधिक व्ययशील मनोवृति का हो जाता है ।

शिकायत प्रकोष्ठ का सुचारू न होना–भारत में शिकायतों पर जांच एंव समाधान की प्रक्रिया अत्यन्त शिथिल है जिस के कारण डिजिटल लेनदनों में होने वाले जोखिम और अधिक बढ़ जाते हैं। ग्राहक के साथ फ्राड, त्रुटि, हैकिंग, नेटवर्क की गड़बड़ आदि किसी भी कारण से डिजिटल लेनदेन से होने वाली गड़बड़ी के लिए सुनवायी होना और फिर उस समस्या का समाधान होना निश्चित ही एक दुष्कर कार्य है अतः संलग्न जोखिम की मात्रा और बढ़ जाती हैं।

सावधानियॉ :– कैशलैस अथवा डिजिटल भुगतान या लेनदेन आज वर्तमान की आवश्यकता है और अन्तर्राष्ट्रीय परिदृश्य पर अपना अस्तित्व बचाए रखने के लिए एक अनिवार्यता भी है । इससे आने वाली समस्याओं अथवा चुनौतियों को समाप्त करने के लिए निम्न सावधानियॉ रखी जानी चाहिए ।

1. **साइबर सुरक्षा** : भारत में डिजिटल लेनदेनों में गड़बडी का प्रमुख कारण साइबर सुरक्षा का दृढ़ न होना है । साइबर सुरक्षा वे तकनीकी प्रक्रियाएं है जो किसी कम्प्यूटर, इन्टरनेट नेटवर्क अथवा डिजिटल उपकरणों तक किसी अनधिकृत पहुंच को रोकती है। इन व्यवस्थाओं को प्रत्येक स्तर पर अत्यन्त सुदृढ़ किया जाना आवश्यक है जिससे डिजिटल लेनदेनों को पूर्ण सुरक्षित बनाया जा सके ।
2. **एनक्रिप्टेड द्वारा** :– यद्यपि भारतीय रिजर्व बैंक द्वारा डिजिटल माध्यमों पर ग्राहकों के डाटा को 128 बिट एनक्रिप्शन की बाध्यता है, इस नियम का अत्यन्त कड़ाई से पालन सुनिश्चित किया जाना चाहिए तथा उल्लंघन पर कठोर दंड का प्रावधान होना चाहिए चाहिए । डाटा को सुरक्षा प्रदान करने के लिए 40 बिट , 64 बिट या 128 बिट कोड में प्रेषित किया जाता है । इसमे सर्वाधिक दृढ़ सुरक्षा 128 बिट एनक्रिप्शन है जिसे तोड़ने में यह माना जाता है कि 10 खरब वर्ष लग सकते हैं ।
3. **पहचान एवं डाटा चोरी** : स्किपिंग (कार्ड की चुम्बकीय पटटी से डाटा) ,आइडेंटटी चोरी (आधार कार्ड या कार्ड से निजी डाटा की चोरी) , बैंक से डाटा की चोरी, वह तीन प्रमुख खतरे है जिनके प्रति सदैव सावधान रहने की आवश्यकता है । अपने डेबिट या क्रेडिट कार्ड को सदैव सुरक्षित रखें तथा उसकी जानकारी या पासवर्ड किसी भी दशा में किसी से साझा न करें । अपने बैंक खातों अथवा बैंक के माध्यम से ऑनलाइन लेनदेन करते समय सदैव सुरक्षा तंत्र का विशेष ध्यान रखें ।

4. **फिशिंग** : बैंक , आयकर विभाग अथवा अन्य किसी माध्यम के नाम पर फर्जी काल या ई–मेल के माध्यम से गुप्त जानकारी को प्राप्त कर धोखाधड़ी फिशिंग कहलाती है । ऐसे फर्जी काल , फर्जी ई–मेंल से सावधान रहें । यह लोग इनाम, लाटरी या अन्य कोई लालच प्रदान करके भी इस प्रकार की फिशिंग कर सकते है जिसके प्रति सदैव सावधान रहना अति आवश्यक है ।
5. **वायरस** : नेटवर्किंग में जब आप डिजिटल लेनदेन करते है तो विभिन्न वायरस , स्पाईवेयर ,की–लागिंग आपकी गतिविधियों पर नजर रखकर आपकी गोपनीय जानकारी साझा (चोरी) कर सकते हैं अतः समय–समय पर अपने नेटवर्क सिस्टम एवं वायरस सुरक्षा तंत्र को अपडेट करते रहना चाहिए ।

सुझाव :–

1. इन्टरनेट एवं वाई–फाई सुविधाओं को ग्रामीण एवं पिछडे क्षेत्रों तक पहुंचाया जाना अति आवश्यक है ।
2. भारतीय संदर्भ में विशेषकर ग्रामीण एवं पिछड़े क्षेत्रों में डिजिटल लेनदेनों की समस्याओं, फायदे, जोखिम एवं सावधानियों के विषय में उचित प्रचार एवं प्रसार अति आवश्यक है जिससे इन स्थानों की परम्परागत एवं रूढ़िवादी सोच में परिवर्तन लाया जा सके और यह क्षेत्र भी डिजिटल लेनदेनों के प्रति आश्वस्त हो सकें ।
3. डिजिटल लेनदेनों के सम्बन्ध में होने वाली गड़बड़ियों, समस्याओं, शिकायतों का तीव्रतम निस्तारण सुनिश्चित किया जाना चाहिए।
4. मुफ्त या ट्रायल वर्जन के स्थान पर सदैव एक अच्छा एवं विश्वसनीय एंटीवायरस सिस्टम उपयोग में लाएं ।
5. किसी भी गडबड़ी, दुरूपयोग, फ्रॉड आदि की दशा में तत्काल अपने बैंक ,बीमाकर्ता एवं साइबर क्राइम शाखा को सूचित किया जाना चाहिए ।
6. अपना डेबिट या क्रेडिट कार्ड खो जाने पर तत्काल कस्टमर केयर सेवा से सम्पर्क कर अपने कार्ड को ब्लॉक करवा देना चाहिए।

यद्यपि डिजिटल लेनदेनों के संदर्भ में विभिन्न प्रकार के खतरे ,जोखिम और हानियों की बातें की जाती है परन्तु यदि तार्किक दृष्टि से देखें तो उनका कारण ज्ञान का अभाव, सिस्टम का उचित प्रयोग न करना, अपनी जानकारी दूसरों से साझा करना, लालच में पड़ जाना , भयभीत होना जाना आदि है न कि तकनीकी खामियां अथवा व्यवस्था दोष । वैसे भी हर प्रक्रिया में गुण और दोष होना स्वभाविक है । कैशलैस व्यवस्था और डिजिटल लेनदेनों के लाभों की श्रंखला अत्यन्त व्यापक है । अभी भारत में यह प्रारम्भिक दौर में है और इसे परिपक्व होने में थोड़ा समय लग सकता है परंतु यह सत्य स्वीकार करना ही होगा कि आगामी समय में डिजिटल लेनदेन एक अनिवार्यता होगा । अतः जनमानस जितनी जल्दी इसे स्वीकार कर ले उतना ही देश की आर्थिक व्यवस्था की सुदष्ढ़ता के लिए श्रेष्ठ होगा । डिजिटल लेनदेनों के सम्बन्ध में आने वाली समस्याओं और जोखिमों में अधिकांश रूप से इस तकनीक के स्थान पर इसका उचित प्रयोग न किया जाना अथवा ज्ञान का अभाव है । भारत में इस सम्बन्ध में व्यापक प्रचार प्रसार आवश्यक है मूलतः पिछड़े एवं ग्रामीण क्षेत्रों में यह एक अनिवार्यता है । इन क्षेत्रों के डिजिटल लेनदेनों के प्रति जुडाव के लिए उनको उचित एवं तर्कपूर्ण ढंग से समझाए जाने की आवश्यकता है । भारत जैसे विकासशील देश में किसी भी नवोन्मेष का प्रयास केवल तभी पूर्ण सफल हो सकता है जब उसकी स्वीकार्यता निम्न वर्ग, निम्न मध्यम वर्ग एवं मध्यम वर्ग में हो । इस सम्बन्ध में विभिन्न एन.जी.ओ, वितीय संस्थाएं, बैंक अथवा अन्य सरकारी एवं गैर सरकारी एजेन्सियां व्यापक प्रचार–प्रसार के लिए डिजिटल लेनदेन सम्बन्धी कार्यशालाएं, प्रदर्शन आदि आयोजित करने में सहायक एवं प्रभावी सिद्ध हो सकते है ।

संदर्भ

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