

# **EDUCATION, HEALTH AND SOCIAL CHANGE**

Walking Through  
The Road Of Transformation

**PARAMVEER SINGH,**

**ISHA AND**

**HARJYOT KAUR**



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We express our heartfelt thanks and indebtedness to all authors for their tremendous attention, wise counsel, and constant support during this effort, which has assisted us in accomplishing the book work in a comprehensive way. We are also grateful to Ms. Jyoti Bala (Assistant Professor and Head, Dept. of Management, Sanatan Dharma College, Hoshiarpur, Punjab) and Ms. Daljit Kaur (Head, Department of Computer Science, DIPS Bhogpur) for their continuous support at various stages of this book.

Finally, and most importantly, we thank again The Almighty God for hearing our prayers by providing the funds, strength, wisdom, and knowledge that enabled us to begin and complete this book.

Once again, our deepest gratitude to one and all.

Paramveer Singh

Harjyot Kaur

Isha

# PREFACE

The world around us is changing faster than ever before. It is changing politically, socially, technologically (AI, quantum computing, Blockchain and IoT coming our way), economically as well as environmentally (climate change). This is a significant challenge for citizens to deal with. Although the Coronavirus may not hit global health as catastrophically as the bubonic plague did in the 14th Century, this latest pandemic will certainly change the world.

It's likely that all of us experienced the imposition of lockdown as a shock to the system, whether it made us feel lonely or listless or anxious or driven to distraction by the family constantly under each other's heels, or all of the above, all at the same time. As individuals, we have had to make changes – both big and small – to our everyday lives.

The past year has transformed nearly every aspect of our world. Seemingly overnight, the quirky (wearing leggings during a Zoom call with clients!) became mundane. Meanwhile, our friends, family, colleagues, and communities have had their lives changed in critical ways that promise to have much longer lasting effects. Living through a global pandemic has driven dramatic shifts in our jobs, eating habits, childcare, and even our collective sense of time.

Imagining and planning for the future can be a powerful coping mechanism to gain some sense of control in an increasingly unpredictable pandemic life.

The book **Education, Health and Social Change** addresses the emerging changes around the world in the field of education and health. The book consists 26 chapters on the theme and sub themes of in the field of education, health and change management.

It entails a deep understanding of different transformations happening around the globe together with all the sources. Further it seeks to provide an explicit insight about Corona pandemic and also shows at length the precise impact on various sections of society and ultimately it tenders strategies for managing the change so as to ensure human capital has improved attitude toward these dynamic conditions.

We hope this book will serve as a valuable reference to students, managers and academicians for many years.

As editors we would like to acknowledge all the support we have received and extend our deepest appreciation to the Ms. Jyoti Bala (Assistant Professor and Head, Dept. of Management, Sanatan Dharma College, Hoshiarpur, Punjab) and Ms. Daljit Kaur (HOD, Department of Computer Science, DIPS

Bhogpur) who helped significantly in all the practical aspects of completing the book. We also gratefully acknowledge the support given by the academic colleagues by sending their chapters.

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# FOREWORD

Change – the invariable aspect of anyone or anything in this universe. Leo Tolstoy once said, 'True life is lived when tiny changes occur'. These changes won't happen if we tend to live in the glory or failure of the past or the current circumstances, changes will work wonder only if we look into the future and move forward accommodating the necessary changes. This is easier said than done and it stands true to people, organizations, and even countries. There is an inherent mechanism that exists in everything and everyone to resist change, which not only prevents us from realizing the mistakes but it also stops us from coming out of our comfort zones. How many times we had heard people saying, 'I need a change' but most often very few move along in carrying that into actions. The fear of an unknown path and the future always holds us back in fulfilling our dreams and ambitions. The risk involved and the likely chances of jeopardizing the life of self as well as those who around us, gives depth to self-doubt and resistance to change.

Today we live in a world where changes are the only thing which is constant, surprising that no one notices the same but moves on adjusting to the same without even recognizing that a forced change is happening to each one of us. The question today is, are we ready to take on these changes on our own and can work it out without being forced by nature or the events happening around us? We can always blame others for all this but then is it not our fault that we didn't recognize the changes required in our life? Today we all are adapting to the Coronavirus pandemic situation and are moving ahead with life in ways which none of us thought will ever happen. Our kids are at home and are being home-schooled, families are spending their time within the confines of their home, and safety and precaution have become the new way of life. The large divide between social life and professional life got narrowed with more and more organizations and society, in general, adapt to work from home concept. Changes are happening to us whether we like it or not.

This book is an attempt to bring the various aspects of changes and consequences of those changes that occurred with time especially due to Covid-19 pandemic in a systematic manner. The book has focussed on the different emerging changes, issues and solutions to those changes in the field of education and health. The book covers the topics such as brain drain, Sustainable Developmental Goals, inclusive education system, data mining, Covid-19 effects, influence of Globalization, virtual learning, marketisation and digitalisation of education, education for social change, M-learning, cancer care, obesity problem, new education policy, financial literacy, Blockchain technology, contribution of social media etc.



As one of the Author and Reader of the book, I would like to congratulate the editors of the book Mr. Paramveer Singh (Department of Management, S.D. College, Hoshiarpur, Punjab), Ms. Harjyot Kaur (PG Department of Commerce, S.D. College, Hoshiarpur, Punjab) and Ms. Isha (PG Department of Commerce, S.D. College, Hoshiarpur, Punjab) for coming up with a book on this most significant topic of change management having relevance with this present-day society. I ensure that this book will enhance the knowledge of readers and researches. This book gives considerable interest in different ways to support adolescents in their digital life, particularly the changes due to current pandemic they are facing. All the chapters are very beautifully and very systematically compiled in this book. This book will surely help the teachers and academicians in planning, organizing, directing, providing knowledge to their students related to different innovative skills and will help their students in their all-round adjustments.

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# CHAPTER I

## THE IMPRESSION OF COVID-19 EMERGENCY ON EDUCATION SECTOR IN KASHMIR

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### **Abstract**

The Covid-19 emergency has affected everything in the globe and various economies of various states and Kashmir is no exception. The impact has been felt on all the zones of the economy. Among these the education zone of Kashmir as well as India has been terribly affected. The shutting down of the educational institution has impacted 90% of the worlds student's population which has grown up an unexpected challenge for the minister of the educational institution of country as well as in Kashmir to think again and wrestle in order to ensure continuity of learning while predicting long – term school closed. According to the MHRD report and National University of Planning and Administration, 290 million students have been high – flown as infrastructure development is on a great fall back. This article highlights the crash of Corona virus universal fall on education and all educational sectors and analyzing the impact of school, college, university, closed by Covid-19 in India and Kashmir. It also suggests strategies and conclusion to manage the pandemic and structuring a strong education system in the long run.

**Keywords:** Impact, Education sector, Virtual Learning, Covid-19, Online Applications

## **Introduction**

The Corona virus pandemic has affected everyone and more than 1.7 billion students. 65 million teaching staff and very large number of educational support personnel in the education zone due to shut down, lockdowns, and quarantines close of schools globally. The Covid-19 emergency has made all the educational institutions and other schools across the world to adapt online teaching through various online apps like Zoom, Google classroom, Webex meetings, Team apps and many more in the online mode. Examinations and classes are taken online. The assignments are submitted through Emails, WhatsApp and other social and online apps to work in pandemic with different platforms. The importance and requirement of smart phones, laptops and a good internet connection was on top to excess the online education on peak. Every village town and the states in Kashmir should be digitally connected for good and better interaction among the connection between teachers and students but the experience show that not all IIT's IIM's have a good interaction due to various reasons. While some of the students are fast to grab and adapt with the new technology and system.

Kashmir should generate and establish a fine infrastructure for online education as it will grow and help in the better advancement of our state and country. institutes like NITs IITs IIMs can globalize online education while other universities can nationalize online education. There are many websites like Great learning, Byju's, Upgrade which collaborate with the topmost universities to provide students with the online courses like machine learning and digital marketing and other courses too. Changes in the fundamental structure should be made within the perfect performer and programmers should be introduced to draw the attention of the students across the state. Skill development should be the important part of this curriculum. This will help in creating future entrepreneurs and professionals in the state. This is one of the ways to beat unemployment and increase business skills amongst the young generation. The strength lies in the faculty and the nature of the institute. Faculty needs to change their way of teaching methods and use new ways to build the interest of students. higher education in Kashmir must be more international, curriculum should be more flexible and innovative and should be open for more collaboration.

Post Corona is giving opportunity to rework the higher education system. Institutes/ universities should use the change and utilize to rework for their self. Collaborations, curriculum design, and new skill development for school enrolment all the higher education should specialize in internationalizing education pattern. Today Covid-19 we don't know what lies ahead in the upcoming time for the young generation.

## **Literature Review**

According to the Kashmir magazine report (2021) Covid-19 emergency online education may not be

good solution in Kashmir despite of free and random sources. The co-founder of Ed-tech firm grey Atom summaries that. Although online learning has become unavoidable, we won't be successful until we realize that online teaching doesn't mean having the full classroom students on Zoom to continuing with the same delivery method. This may be suitable point, but it has found its barriers. According to Ashutosh Kumar co-founder of testbook.com. Through light on the teachers in Kashmir need to be trained in online learning and be comfortable in creating new methods of delivering their lectures and their digital content. According to Ankush single co-founder of coding ninjas comments that, despite of the use of the quality content and native advertising tools, the technology tools has just only multiplied by the numbers but not by the market size in the regions of tier 1 and tier 2 in Kashmir.

## **Objectives Of The Study**

- To study the result of Corona virus on education in Kashmir.
- To acknowledge the problems and new challenges of Covid-19 on education zone.

## **Problems And Challenges In The Period Of Covid-19 In Education Zone In Kashmir**

- Short time for the educators to end up the advice course.
- Influence on placements and internships.
- Lower globe employment chances.
- Long- establish learning environment v/s practical learning environment.
- Educator's preparation in embarking on IT technology orated education.

## **Research Methodology**

This research paper is based on secondary data and primary sources. Reports from various companies like VOXEU, UNESCO, on education are used to the data for this research paper. Various articles and research papers published in economic times and best journals. Indian magazines and other secondary data sources like news reports, govt journals, newspapers, reports are utilized in this paper. To show the result of the objectives of the paper. I intend to conduct survey. Personal interviews, messages and calls with teachers and students of Kashmir and know their views about Covid-19 and education sector with effect of it and their views and know the issues to the objectives of the paper Covid-19 footprints on various zones impression on pedagogy. The Corona virus outcome means big losses in education and learning hours. With major impact on our social life and particular our jobs because the world population has already taken important to healthy over education. With the response of Covid-19,

colleges, universities, school's closure has brought number of economic and social problems and barriers, including student debt, poverty, and digital learning, and childcare, internet, and disability services to the good degree.

### **Impact On Automated Framework**

Thinking about the increasing concern over the spread of the Covid-19 most of the universities, colleges, schools have closed classes and work. teaching moves to online at a level which is impossible without precedent and untested. With a lot of screening and testing of the errors and confusion for all, this best alternative mode was only for few times and will create only certainly not replace the face-to-face interactions between students and teachers and among other students.

### **Impact On Admissions**

It is expected that the coming academic years will frame the result of Covid-19 emergency on the admissions of the students in the colleges and universities in Kashmir. May will mark the new admission and starting the fresh academic session but most of the admissions reviews is not yet performed. So, June or later the new academic classes is almost to start with hike results.

### **Impact On Teachers And Parents**

This pandemic has created the effect not only the students but family and parents too. Most of the colleges, schools in Kashmir are teaching online to their students. Many schools are not comfortable with such online courses. Because in Kashmir there is always network problems and less technology instruments to use. The impact of the virus was very much strong because families in outside city areas don't have good connectivity of internet so for that the result of the Covid-19 was too much. Recent graduates in Kashmir fear that the current situation will mean to lose of job offers from the good companies. Suction will gradually decline when unemployment rises.

### **Research Result**

The Covid-19 emergency has accrued closing of educational system. The data which I get by tracking timing and duration of the schools, colleges, universities in Kashmir which had been shut down since last year mid-February. The government of Kashmir has mandated a complete shutdown of all the educational sectors affecting at least 80% of the student's population in Kashmir. This includes students from pre-nursery stage the upper stage secondary levels.

## **Suggestions And Game Plan For Developing Strong Education System In Kashmir**

The boost of power supply, digital expertise of teachers and students, and internet connections aid to explore digital learning, high and low technology solutions in the emergency time. Open-source digital learning mixture and learning management software should be adopted so that the teachers can teach online comfortably.

There is very much need of developing inclusive learning patterns and solutions particularly for the criticize and unprotected people in Kashmir. The living of people in Kashmir in the remote areas should be focused upon the proving the better knowledge of the good usage of new technologies and internet and enable them in gaining proper knowledge with the help of long-distance programs.

The high reduction zone should make new strategies and development for developing demand and supply trends globally. They should also need to enhance better quality and demand for new and higher education in Kashmir.

We can't ignore that in the time of pandemic crisis impact on educational practice is needed for the capacity building of new generation and young minds. State and central government need to take some good measures to protect and insure the overall progress in the state of Kashmir. Time never waits for anyone, and this thing taught time will also pass stay home stay safe.

### **Conclusion**

Although the globe may be shaken, the best alternative and new way is to maintain consistency of education and to make improve in information through online learning. Which includes being a most strong tool and a sign of good hope in the time of emergency Covid-19 outcome. With the option of taking online class at home or working from home according to our own comfort and convenience? Now it is time for introspection. The government of Kashmir will have to take tough calculative decisions about investment in education sector in the coming era. The students of today generation and future epidemiologists, nurses, researchers and other specialists in the field of public health also.

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# CHAPTER II

## THE CONTRIBUTION OF SOCIAL MEDIA DURING THE FARMER'S AGITATION

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### **Abstract**

In our nation, there are many different media outlets, including print, electronic, outdoor, electronic, etc. Additionally, it could be separated into mainstream and alternative media. The narrative that is demanded by the government is primarily set by mainstream media. Alternative media, as opposed to mainstream mass media, frequently consists of 'non-commercial projects that defend the interests of those excluded from the mainstream', such as the underprivileged, racial and ethnic minorities, and labour unions. It was evident during the farmers' protest that the mainstream media specifically attacked the farmers by defaming them with terms like 'Khalistani' and 'anti-social'. Farmers used social media platforms to defend their reputation during demonstrations whenever the mainstream media failed to do so by allowing them to tell their side of the story to a larger audience. This paper is all about the part played by social media platforms which have also brought the change in perception of people that reversed the war models between government and the farmers.

**Keywords:** Social Media, Mainstream Media, Change, Farmer's Agitation.

## **Introduction**

Farmer's agitation appeared to have been fought on two fronts: against the three drafted farm laws and against deliberate distortion of the protest and protestors. The National Democratic Alliance (NDA) government, led by Prime Minister Narendra Modi, enacted three new farm laws on September 27, 2020: the Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, the (Empowerment and Protection) Agreement of Price Assurance and Farm Services Act, and the Essential Commodities (Amendment) Act. According to these laws, anyone could purchase farm produce outside of the government's regulated mandis at mutually agreed-upon prices. The laws also lifted stock holding restrictions on food grains and allowed for contractual farming with limited judicial intervention. The government was promoting the laws as a 'historic' reform, but farmers believed that allowing large corporations unregulated access to the agricultural market would lead to the collapse of the Agricultural Produce Market Committee (APMC), gradually eroding the Minimum Support Price (MSP), a guaranteed minimum price set by the government for the sale of agricultural products. Farmers were determined to continue their protest in and around India's national capital, New Delhi, as protestors continued to arrive by the thousands. Following multiple rounds of discussions between farmers and the government, discussions came to a halt due to the government's refusal to accept the farmers' demands to repeal what they refer to as 'black laws'. Protests erupted across the country as soon as the bills were tabled in Parliament on September 20, 2020, primarily in the Indian states of Haryana and Punjab, but their opposition was largely ignored by the national media. After months of protesting in their respective states, thousands of farmers marched to the nation's capital on November 27, 2020, to oppose the laws. 'Police used tear gas and water cannons against marching farmers and ripped up highways to prevent tractors and protesters from moving forward', the Guardian reported on 30 November 2020. Singhu, the very last village in Delhi before Haryana, became the epicenter of the farm agitation, with protestors occupying several miles of National Highway No.1. However, the Supreme Court of India stayed the implementation of the laws and appointed a committee to resolve the ongoing standoff in January 2021. Farmers, however, were doubtful, given that all four members of the panel had publicly supported the Modi government's stance on the laws.

At last, nearly after a year, apologizing to the country, Prime Minister Narendra Modi announced to repeal the three highly controversial farm laws for which were protesting at Delhi's border.

## **Control Of Government On Media**

The mainstream media frequently been complicit in the spread of a pro-government narrative and the manipulation of public opinion. When viewers were overloaded with fake news and polarizing propaganda from a variety of sources, from multiple online platforms like OpIndia and Swarajya Magazine to global platforms like Facebook and WhatsApp, information orders became more protracted.

There were at least 530 million WhatsApp users, 410 million Facebook users, 175 million Twitter users, and more than 400 million YouTube users in India, which has a population of nearly 1.4 billion people.

Facebook blocked the Kisan Ekta Morcha page during the farm protests, citing 'against community guidelines on spam'. It was quickly repaired. The Morcha had tweeted, 'This is what they could do when people raise their voices.' 'When they couldn't ideologically defeat us'. Later, in response to agricultural protests, Twitter shut down more than 250 social media accounts, including The Caravan and Kisan Ekta Morcha for allegedly using a debatable hashtag. The Ministry of Electronics and Information Technology made the request, and the decision was made in response. Twitter has reopened accounts in response to widespread public criticism. It only served to highlight how social media's use of hashtags and the spread of information that results in suspensions has unnerved the political establishment. India saw a significant rise in independent media such as Scroll.in, The Wire, and NewsClick, the majority of which were online portals, during the same period that was seen an increasingly compliant mainstream media, an unprecedented rise in false information, and persistent targeting of religious minorities. There were other portals that offer specialised material, such Gaon Connection and People's Archive of Rural India (PARI), which both concentrate on rural areas. There were many new internet outlets that concentrate on local news, such The News Minute. Data journalism by India Spend had been very interesting. Platforms for fact-checking, such Alt News, Boom Live, and Factly, had been dispelling the false narrative that spread throughout the information ecosystem, including through social media and mainstream media. Many of these had been able to continue operating thanks to a recent development in corporate philanthropic sponsorship of alternative media, which allowed independent journalists to break away from the mainstream and launch their own businesses.

## **Role Of Social Media During Protest**

The claim was often made that the development of social media had made it possible to access real-time accounts of protest behavior, which were recorded and archived through microblogging sites like twitter as well as through mixed mediums. These internet-based 'virtual' acts were distinct from 'real-time' actions, which were supported and assisted by the internet. The following were the main ways that media experts' studies suggested the role social media played in movements and protests:

- Facilitating communication of information that was essential for protest actions, such as news concerning transportation, attendance, police presence, violence, medical services, legal assistance, etc.
- Removing practical obstacles by making it easier to plan and coordinate events like protests, meetings, sit-ins, and (street) blockades, as well as through creating Internet-based protest websites that promote social concerns and rally support for the cause. These websites were developed to give

people a place to write and share opposing opinions regarding ongoing struggles, avoiding the traditional or mainstream media. monitoring the evolution of political events during the upheaval.

- In a similar vein, farmers demonstrating outside the national capital's boundaries begun to use social media and information communication technology (ICT) platforms to improve information exchange since they feel their opinions had either been ignored or misinterpreted. Under the aegis of Kisan Ekta Morcha, they established a platform, a single source, where information pertaining to their primary demands and all relevant developments about the farmers' demonstrations were published and immediately made available to the general public (KEM).
- On December 16, 2020, they started it on their Facebook page. Later, they added YouTube, Instagram, Twitter, and Snapchat to the mix. Five people make up KEM, including a 16-year-old who was proficient with Snapchat, and they come from three different states: Punjab (2), Haryana (2), and Rajasthan (1). This was a deliberate attempt to undermine the idea that protest was only focused on Punjab.

## **Use Of Social Media In Countering The Narratives**

When asked whether they used social media, protesting farmers frequently responded in the affirmative and said that they published 'simply usual' stuff while attempting to highlight the 'true side of the protest', which they described as a struggle for survival. They responded, 'We only posted positive things about the demonstration, and publish tales on Instagram', when questioned about the specific types of content they would post about the rally. We just posted this because we only visited there twice a week. We broadcasted live videos from there to demonstrate that what was occurring right there. When our neighbours read our posts, they offered to join us in going to the protest locations. Despite the poor quality of the demonstrators' responses, it was clear that they were not using their social media platforms to counter the mainstream media's attacks on them. These were instead an unconscious attempt to protest the way that the farmers were portrayed in the media as terrorists, 'Khalistanis', or anti-Indian forces. Without frequently realising it, the respondents were covertly participating in counter-narrativization. Additionally, Aman Natt of the Trolley Times explained the latent purpose of such social media posts: 'Those who hadn't been able to get to the protest areas, they relied more on social media than mainstream media for the updates. So that villagers in the protest site might receive regular updates, someone always tried to record live videos from the protest site. The majority of them only used social media to monitor events within and around borders. The campaign Tractor2Twitter, which was focused on Twitter and supports farmers using social media to protest farm legislation, said that social media must be used concurrently.' There are many fronts on which a movement is waged. We outsiders who were watching our family members demonstrated want to help them counter the widely held narrative that was being promoted by the media. Teams from India joined our Twitter campaign as a result, particularly the

younger ones.

## Conclusion

Social media and the IT division of the current government were implicit in normalizing the delegitimization of dissident individuals since they frequently place more emphasis on a single event than on the fundamental problems that Indian society faces. It became essential for protesters to use social media as a tool to instrumentalize and refute common narratives because it is where current discourses are created, discussed, and where hatred was transmitted. In order to address narrative framing such as 'Khalistani' and 'anti-social', farmers sought to understand how social media platforms like Kissan Ekta Morcha, Tractor2Twitter, and The Trolley Times had been successful. The farmers who were protesting were active on social media and did their best to refute the pro-government narrative. It was also crucial to note that social media platforms defended the protesters' reputation whenever the mainstream media fell short of doing so during demonstrations by enabling them to convey their side of the story to the wider populace.

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# CHAPTER III

## PRIVATE SCHOOLS VS GOVERNMENT SCHOOLS

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### **Abstract**

The comparison of private versus public educational institutions will be a point of contention for all of eternity. Both have unique importance in their specialized domains. Both types of institutions have a significant role to play in developing and producing India's future champions. Is the growth of the students just the responsibility of the schools? If so, would private or governmental ones be preferable? Many people believe that private institutions are superior than public schools, while others believe the contrary. There has been a fall in the number of children attending government schools in recent years as private schools have grown more prevalent in India. Does this imply that public schools are not superior? Which is better, private schools or government schools, has long been the subject of discussion. In this paper an attempt has been made to compare the private and government schools.

**Keywords:** Education, Quality, Private, Government

### **Introduction**

Private or independent schools are run by the private sector and are not subsidised by the local, state, or

federal governments. As well as colleges and universities, elementary, middle, and secondary schools can also be private. Students must pay tuition to attend private schools. One significant way that private schools and public institutions diverge is in price. While private schools are supported by tuition fees, public schools are managed and funded by the government. Private schools may have some benefits over public ones aside from expense, though.

## **Objectives Of Study**

The main objectives of study are -

1. To compare the government and private schools on the basis of various parameters
2. To conclude which is better

## **Research Methodology**

The present paper is developed through secondary data sources available online.

## **Data Analysis**

The major parameters that can be used for comparison includes -

## **Education Quality:**

Every parent's greatest desire is to see their children receive an excellent education. The medium of instruction is where parents perceive the biggest distinction between private and public schools. English is a common language for communication in private schools. English is a language that private schools work to instill in their students. In actuality, aside from English, the majority of private colleges today teach other foreign languages. In contrast to government institutions where students are taught in regional languages, it draws parents.

## **Discipline In Life:**

In addition to delivering a top-notch education, private schools are discipline-conscious. Punctuality, cleanliness, and uniform are routinely evaluated each day. Every person's personality is developed and groomed via their efforts. These issues virtually every receive attention in government schools.

## **Extra-Curricular And Social Activities:**

Private schools have more suggestions for engaging pupils in extracurricular, social, or inter school competitions. They prepare kids for future challenges through these exercises. They work to increase self-

assurance and enhance each person's personality. Apart from a few excellent government schools, these activities are scarce or nonexistent.

### **Standards:**

Both private and public schools give education, but to different standards. Government schools are associated with the ICSE or state board, whereas the majority of private schools are with the CBSE board. The curriculum created by these two various boards does not differ much from one another. Nevertheless, the majority of parents think that private schools make an effort to teach more than is necessary to pass entrance tests.

### **Facilities:**

Most government institutions lack basic amenities like power and suitable classrooms, but private schools work to create a setting that promotes greater learning. In addition to schooling, they offer the essential facilities and tools needed for kids' physical growth.

### **Faculty Dedication:**

Despite the fact that government institutes' teachers are well qualified, they are unable to outperform private schools in terms of student achievement. It is due to the commitment of government faculty and staff. Teachers at government schools are not particularly devoted. Teachers in private schools regularly provide class tests to students to track their progress. Because teachers in private schools are held responsible for the academic progress of their students, they are more devoted and diligent.

### **Teacher Student Ratio:**

Due to a shortage of classrooms and instructors, government schools have a modest enough teacher-to-student ratio. They aim to fit as many pupils as possible into a classroom, which prevents teachers from giving each student their undivided attention. In actuality, non-teaching tasks keep the majority of government teachers busy. Other responsibilities entrusted to government teachers include making ID cards, cooking the midday meal, and conducting surveys. However, teachers' main responsibility in private schools is to keep an eye on each and every pupil. Therefore, pupils in private schools receive the proper attention.

### **Affordability Of Fees:**

Private schools strive to offer top-notch resources for kids' general development, but they also charge a lot for these things. They are supported by student fees for all school-related expenses. Low-



income families find it difficult to pay the high cost. While government schools provide free education up to the eighth grade so that members of the lower socioeconomic strata can afford it.

## **Concluding Remarks**

Good schools are crucial for a nation's future because they raise the leaders of the next generation. In schools and colleges resides a nation's future. In India, there are both public and private schools. In terms of infrastructure, amenities, and safety, private schools are better suited. Although they are pricey, they also provide quality. To increase admittance, they maintain high standards for their professors. Government-run schools are available to people who cannot afford the high tuition. There are excellent teachers, but they don't care to give their kids the greatest education possible. Since their peers do not present any competition, these institutions are not overly concerned with high-quality materials. However, public institutions are crucial because many students cannot attend private schools; any education is preferable to none. Government must have the intention and drive to improve the school ecosystem. This will guarantee long-term advantages.

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# CHAPTER IV

## DISILLUSION OF BRAIN DRAIN - AN INDIAN PERSPECTIVE

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### **Abstract**

Brain Drain can be defined as 'The Movement of highly skilled and qualified people to a country where they can work in better conditions and earn more money'. Brain Drain can also be named as 'Flight of Human Capital' because it resembles the case of capital flight, in which mass migration of financial capital is involved. India's Population is around 138 crore and is a labour-intensive country. From India every year most of the people are migrating to other countries for better working conditions, salaries and other benefits. They are the category of Scientists, Engineers, Technocrats, Professionals, software engineers, Software Consultants, Students etc., India is becoming a brain reservoir, for developed economies. Every year most of the people are leaving from developing or least developing countries to developed countries for better opportunities. Indian diaspora is largest in the world where 'non-resident Indians' are becoming 'not- returning Indians'. Due to these all things India and its strength is decreasing in terms of Skills, Knowledge, Efficiency and Technology. This Paper seeks to raise questions on the causes of Brain Drain, the facilities and amenities need to be provided to overcome brain drain in India economy.

**Keywords:** Brain Drain in India, Human Capital Flight, Skill Migration.

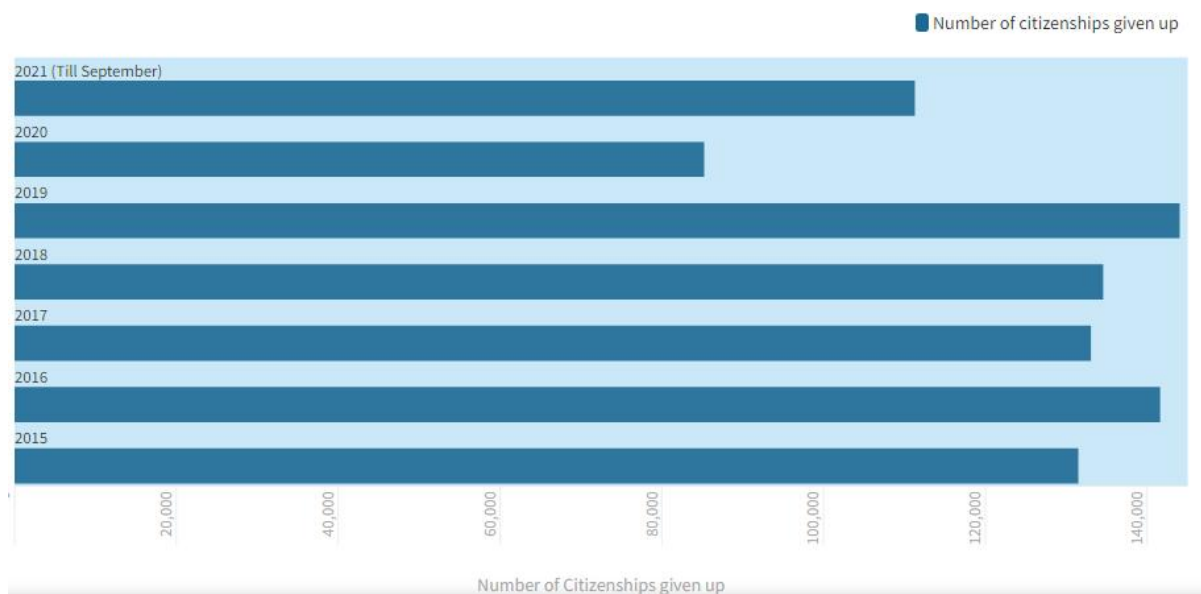
### **Introduction**

The term brain-drain was introduced by observing the emigration of the various technologists, doctors and scientists, from various developing countries to more developed nations like USA, UK, Germany, England etc. Now this phenomenon of brain drain has a conversed effect for a country in which people are getting migrated and brain-drain of a nation becomes brain-gain for that particular country. Usually all developing countries including India are suffering from brain drain and developed countries

like USA are having brain gain from this phenomenon. More or less, all the backward countries are suffering from this problem.

India is also one of the major nations in the world which is suffering from this brain drain seriously at the present moment. Statistics reveal that the brain-drain of software engineers alone costs India \$2 billion a year. The total amount lost from every field of human capital threatens to be enormous. In a recently released report from the Union HRD Ministry about fee structure in IIT s said that an average of 8 Lakh is spent on every student for a 4-year BE course against the meagre 2 Lakh paid by the student. This means that for every student that studies in the IIT and moves abroad to work for MNCs, there is a loss of 6 Lakh rupees.

India witnessed the sharpest increase in people migrating overseas, at nearly 10 million (one crore), between 2000 and 2020, according to the 'International Migration 2020 Highlights', a report issued by the Population Division of the United Nations Department of Economic and Social Affairs (UN DESA) in January 2021. The report also mentioned that as of 2020, India's diaspora stood at about 1.8 crore. It highlighted that India has the largest transnational population, with approximately 35 Lakh people living in the UAE, 27 Lakh in the US, and 25 Lakh in Saudi Arabia. But the major issue is not about Indians leaving as much as it is about their not returning. Indian citizenship renounced in a Lok Sabha session in mid-December last year, the Ministry of Home Affairs informed the House that 8,81,254 Indians gave up their citizenship from 2015 to September 30, 2021.



The above table shows the rising rate of citizenship given up which started from 2015 till 2021. The slight decrease was seen in the year 2020 which was due to the hit of Covid pandemic to the world economy. The migrations were completely ceased in that period. And in 2021 again the citizenship giving up shoot up tremendously.

## **Causes Of Brain Drain In India**

There are various reasons for the brain drain in India. The reasons usually include two aspects which respectively come from countries and individuals. In terms of countries, the reasons may be social environment (in source countries: lack of opportunities, political instability, economic depression, health risks, etc.; in host countries: rich opportunities, political stability and freedom, developed economy, better living conditions, etc.). In terms of individual reasons, there are family influence, and personal preference: preference for exploring, ambition for an improved career, etc. Keeping all these in mind we can identify some causes for the brain drain in India.

### **Higher Education**

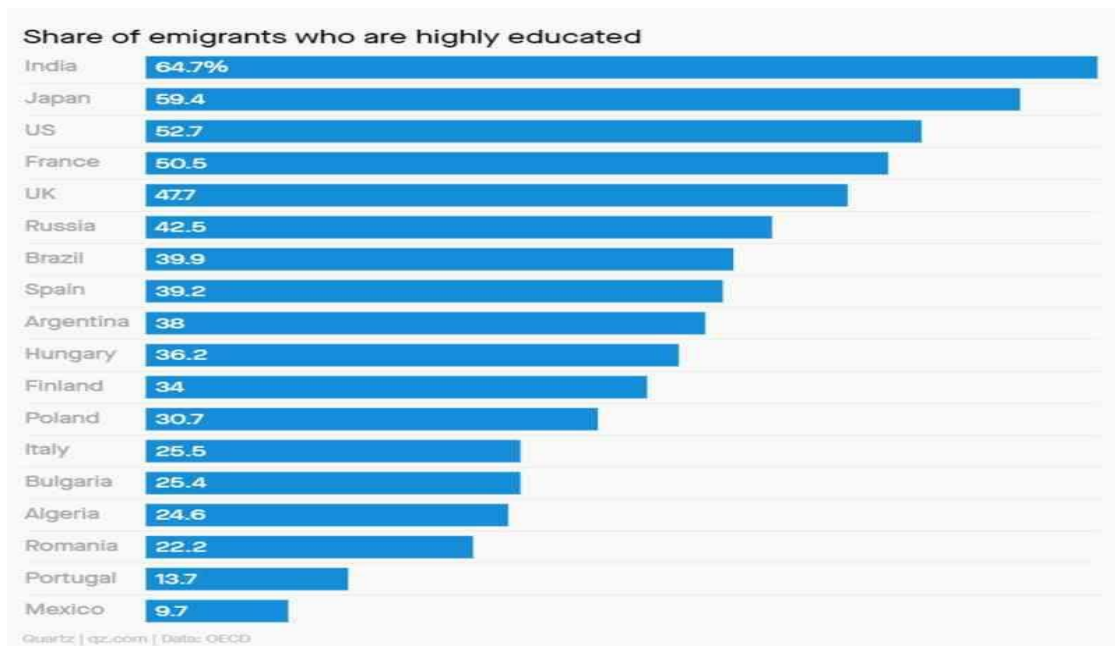
Higher Education in India evolved considerably after independence in terms of the number of universities as well as in terms of access to higher education. Nowadays, the number of universities in India has grown some 35 times comparing to 500 colleges and 20 universities before the independence which are enrolling more than 11 million students, more than 10 times before the independence. Before the independence education was limited and elitist: the current system is though more open with from 30-40% of enrolments from coming from the lower castes, and with women representing some 35% of the total number of students.

The impressive increase in higher education has raised some questions over the adequacy of studies, resources, institutional quality and standards. Students moving to the abroad is keep increasing. In a report, news channel WION said that more than half of the first-rankers of standard 10th and 12th board exams for the period 1996-2015, the brightest Indian minds migrated abroad and are still employed there. In Budget 2019-20, India allocated Rs. 6.43 Lakh crore of public funds towards education, part of which went into subsidising the studies of skilled emigrant Indians.

### **Employment**

India has skilled and semi-skilled, employed and unemployed human resource. Low salaries and inefficient working conditions can be the first motive that triggers the movement to the countries with better living standards and facilities.

There is huge difference in terms of salary in all three groups of countries namely developed, developing and underdeveloped. To demonstrate, skilled workers aim to get pleasing salaries in return for their labour but the working conditions in their homeland don't fulfil their wishes. Therefore, those workers prefer to move another country in order to have better living conditions with high salaries. Employment is one of the strong reason for brain drain in India.



## Lack Of Opportunities

In developed countries, researchers are provided with funds and necessary equipment to carry out study, which can be another motive that attracts those deprived of these opportunities. Most scientists in underdeveloped countries, do not possess laboratory facilities and researchers cannot get sufficient funds. Therefore, when developed countries offer these facilities, researchers and scientists naturally

## Favourable Migration Policies

Increasing economic interdependence among nations, growing demand for skilled labour in the knowledge economy not to mention demographic trends are all strengthening the position of India as a major supplier of young, educated and qualified manpower for the EU. Owing to its demographic profile and its English-speaking population, India, with its large reserves of highly-skilled workers, has emerged as one of the most prominent country to fill the supply gaps in the labour-deficient economies of the developed world. Taking into account EU economic objectives coupled with demographic and ageing effects, Member States have put in place selective immigration policies aimed at attracting highly-skilled professionals and tertiary-level international students from South Asia. In order to facilitate labour mobility, some EU countries signed labour-mobility partnerships with India. According to the Ministry of Overseas Indian Affairs, this kind of agreements was signed with Denmark, and negotiations are ongoing with other European countries, EU and non EU, including Poland, the Czech Republic, Norway, Switzerland and Hungary, Sweden and France. There are so many causes of the brain drain in India. First of all, there is the unemployment problem. Even a talented person cannot get job. India is lacking in facilities for higher research work. The top appointments are quite few in India. Thus, the talented experts like to seek new pastures abroad.

## **Outflow Of Hnwis And Skilled Professionals**

Of late, a large number of High Net-Worth Individuals (HNWIs) have also started shifting abroad. A 2018 Morgan Stanley bank report found that 23,000 Indian millionaires had left India since 2014. More recently, a Global Wealth Migration Review report revealed that nearly 7,000 millionaires or 2 percent of the total number of HNWIs in India left the country in 2019 alone, costing the country billions in lost tax revenue.

## **Government's Stance On Brain Drain**

India does not offer dual citizenship hence people seeking citizenship in other countries must give up their Indian passport. However, Indians who renounce citizenship can still apply for an Overseas Citizen of India (OCI) card, which gives them the benefit of residing and even running a business in India. The Indian government has a simple online process for citizenship renouncing, making it clear that they are much worried about the outflow of the talented population. A reason for this is maybe the fact that the expatriates have become huge financial assets for India through remittances and investments. NRI remittances have been a major contributor to India's forex receipts though motivated by personal gains. Some schemes have been devised by the government to bring back Indian scientists like-

- 'The Ramanujan Fellowship, Innovation in Science Pursuit for Inspired Research (INSPIRE) Programme' to encourage scientists and engineers of Indian origin from all over the world to take up scientific research positions in India, especially those scientists who want to return to India from abroad.
- The Ramalingaswamy Fellowship, for providing a platform for scientists who are willing to return and work in India.
- Vaishvik Bharatiya Vaigyanik (VAIBHAV) summit: Under this, numerous overseas Indian-origin academicians and Indians participated to form ideas on innovative solutions to several challenges.
- Scheme for Transformational and Advanced Research in Sciences (STARS), Scheme for Promotion of Academic and Research Collaboration (SPARC), and Impactful Policy Research in Social Science (IMPRESS) with the common objective to boost India-specific research in social and pure sciences.

## **Conclusion**

India government should understand the problem of brain drain and its consequences towards the growth of an economy. Government should support for all categories of people to not to leave from India,

by supporting financially, technically and professionally. Where an effective utilization of human knowledge is possible, then the growth rate of economy can be seen in all aspects.

India needs systematic changes to build an overall environment that would be beneficial for the talented enough to motivate them to stay in the country. The government should focus on framing policies that promote circular migration and return migration. Like policies that incentivize professionals to return home after the completion of their training or studies would be welcomed. India could also hold talks to frame bilateral agreements for a policy of 'brain-share' between the sending and receiving countries.

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# CHAPTER V

## ROLE OF TEACHER IN MODERN INDIA

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### **Abstract**

Teaching is much as esteemed profession in the all professions. Teacher is called the Nation Builders. Teacher is a blessing of God. Everyone is a teacher. We cannot forget our first teacher mother. Anyone who teach us how to live, how to behave, how to read, how to work, how to earn our livelihood is a teacher. Everyone in their life is a student as well as a teacher. Teacher is that person who works for the growth of others. Teacher has a real-life connection with the children. Teacher not only teaches the children but also help the children to make their future bright. They encouraged the students by giving them prizes. They always use motivated words to encouraged a student e.g. keep it up, good, well done etc. Teacher is always in the try to keep its knowledge update to teach and give a better knowledge of education health and society. A teacher has to build relationship with student, parents, society and colleagues. Teaching style of teacher gives an impact on the student. Teacher is a key of every problem of student. Future of nation is totally depending upon good education. There is a well-known saying 'A beautiful statue is made from an unshaped stone'. Like this a teacher give a shape to a student. Teacher also gives a student to set their goals and give them track to achieve the goal. Only a teacher can teach how to face challenges in life. Teacher is not only a tutor but also a friend to a student. A teacher is a third parent to a child. In this study introduction include the meaning of children, role of teacher and ancient name of teacher in second phase described the need of teacher and importance of teacher. Its third phase states the changing role of teacher in the year 2030, and changing role of teaching in the pandemic period. A brilliant teacher changes the life of student.

**Keywords:** Teacher, Student, Society, Children, Future, Knowledge.



## Introduction

The full form of teacher-Trained, Efficient, Able, Cheerful, Honest, Enthusiastic, Resourceful

A teacher is a blessing of God. A person who can give a shape to unshaped society is called a teacher. Teacher day is celebrated to give a reward for their best efforts. The efforts of teacher are not forgettable. Teacher in educational field were **Dr. Radha Krishnan** and **Savitribai Jyotira Phule** did their best. The first teacher was **Savitribai Jyotira Phule** (03/01/1931 to 10/03/1897) a good poet from Maharashtra. She was a social reformer also. **Confucius** was a first teacher of world. He was private tutor of history. 5<sup>th</sup> October is celebrated as world Teachers Day from 1994. **Dr. Radha Krishnan** was a great teacher of india. **Thomas Babington Macaulay** is known as a father of education. **Savitribai Jyotira Phule** is known as the mother of education Indian Schools were started by Lord Thomas Babington Macaulay in 1830s.

## Definition

A person who passes on information or skill. According to DC Tosteson, "We must acknowledge that the most important, indeed the only, the we have to offer our student is ourselves. Everything else they can read in a book." Teacher is the positive role model for student who can influence their behaviour, inspired them. Teacher always keeps present in the mind of students. A teacher can set the example by its behaviour. A teacher can inspire the child to do something etc. and better. Teachers are the intermediates between student and parents. A primary teacher is the first instructor who teaches the child about once life. The middle school teachers guide the students when they are in their growing age. High school teachers give the answer to the question of students. Secondary level and higher studies make the student a better professional and human being.

Teacher is a role model for the students and the society. They play their role in classroom and as well as in school management. Teachers get the training and promote their selves to take the responsibility [of society and students. The word 'teacher' comes from 'teach' and the word teach derived from Anglo Saxon word 'teacon' which means 'to impart', 'to train', 'to instruct', 'to make aware of'. We cannot define teacher in words. In broad vision teacher is a hub of knowledge and we can say a person who can influence anyone. In narrow vision teacher is a part of society. A teacher cans only build the nation by influencing and inspiring the new generation.

'Philosopher praise the teacher as a mason who builds the fabric of society' A teacher is a Advisor, Guru and Model.

In the words of Henry Adams, "A teachers affects eternity, he can never tell where his influence stops."

A teacher can make a perfect teacher, perfect lower, perfect doctor and politician. Teaching is that profession which called the mother of all profession.

## **Need Of Teacher**

Teacher's need cannot be described. Teacher is a processor of knowledge. Teacher is an instructor who instructs the students for better future. We can describe the need of teacher in following way.

1. Distribution of Knowledge - Teacher distributes its knowledge to the students whether in the classroom or outside the classroom teacher fulfils the demands regarding knowledge in all the way. They take it as their first duty.

2. Fun Activity - Teacher tries to teach the students with some fun activity. In 2022 many teachers come into light who gave the knowledge to pupils with fun and creative activities.

3. Real-Life Examples - A best teacher always relate study with real-life example. Because real-life example is easy to understand and student can be taught to face real life situation.

4. Encouragement - Only a teacher can encourage the students to do well. With a motivation of teacher, a student can cross any barrier.

5. Advice the students - A teacher not only teach but they advise the students to set their goals and suggest how to perform well to achieve destination.

6. Third Parent - A teacher is also an external parent or third parent of students because students spend their maximum time with a teacher.

## **Changing Role Of Teachers In The Year 2030**

In Covid time classroom study is replaced by online study everyone whether they are teachers or students is using new technology. The rapid use of technology is increased in the field of education the personal teaching processes is decreasing day by day. So, fear for the teachers increase due to the replacement of personnel by technology. 21<sup>st</sup> century of innovation it is expected that innovation of technology will be increased. Rapid use of technology will harm the classroom study and emotion of students and teachers. But teachers can be occupied by teaching technology to students there will be no restriction of classroom. Rabindranath Tagore talked about the learning of child from various sources like nature, people, animal and books etc. Future educations will the education of technology. A teacher is that person how understands the feeling, words and sentiments of the students.

## **Changing Role Of Teachers During Covid-19**

Covid-19 pandemic has promoted online teaching on large scale. Schools were close to save the lives of students. Students from different levels (elementary, secondary and college) were stay at home and got online classes, The online teaching pattern of all teachers form many countries were different. Lectures were delivered through presentations' discussion were videos and audio based. Homemade videos were used by elementary teachers to teach students at lower level. Practical and experimental courses were taught by teachers at secondary level. In college level teachers gives reminders of the subject matters to students. Online learning is an old way teaching since 1990s, but at the time of pandemic maximum countries adopted this way of teaching to save the time of the students. In the pandemic time, the governments of various countries made a strategy to give online education. Teachers made their own strategy and design to teach the students pandemic time promotes the online teaching. The main objects online study was to discuss about the study design of teacher. The study design was related to data collection, instruments related to study e.g., Google Classroom, I Can, Moodle, Cyber–Link U meeting, Zoom, Join Net, Google meet etc. In pandemic time teachers did their best to teach the students and a hence their knowledge teachers are the backbone of the society.

### **Review Of Literature**

1. Dr. Danijeta Makoves 2018, this paper described about teacher's professional development. Teacher was defined by culture social events in environments the finding this study was teachers feel better with several years of experience they think they were qualified to perform any kind of duty.

2. Barbara Steh, Jama Kalin and Jasna Mazgon. This research paper focused on the results of empirical research basically intended to determining who students can understand the role of teachers the quality of studies can be indicates by the role of students and teachers.

3. Erik Ejthoonen, Peter JC Slegers, Farns J Oort et. al. 2011 this study described that professional learning activity could improve the teaching practices of teacher's self-efficiency was the most motivational factor for teaching practices.

4. Nancy Ratcliff, Gilbert Haunt 2009 this study described about the relationship between teacher and family of students this study interprets that teacher had the responsibility to promote quality relationship with the student and their family.

5. Marry T Brownell, Paul Sindelar, Nancy Waldron et.al. 2006 this study described about the teachers who serves to students who are disable. This study examined that teacher have to work together with a strategy to achieve common goal.

6. Katia Fredriksen, Fean Rhods 2004 this study focused on the influence of the teachers relationship with the students it was concluded students spend maximum time with teachers in the school. Students got motivated from the teachers.

7. Lois J Zachary 2002 this study focused on the teacher's presentations of set which can mentor others.

8. Miriam Ben – Peretz 2001 this paper expresses the demand of teacher education at the present time. This study focused on the brief analysis of sum of the external demands and constraints on teacher's education. The aim of this analysis was to find out the gap between teacher's self-images of profession and their demands for the same.

## **Methodology**

In order to explain the role of teacher in society and school. Primary and secondary theoretical study was used. Personal views were taken from teachers. A number of papers were studied which were discusses about the role of teachers in primary study personal conduct with the teachers and talk about their way oof teaching. A teacher also gives the information about the student's interest for study.

## **Result**

This study gives the results that without teacher we cannot make a better tomorrow and better future. The role of teacher is changed in now days. Old times Guru Word was used for teachers. Teaching at that time was personal. Guru always gives Shiksha (teaching) to its pupils. The importance of Guru was much more because he was the advisor and builder of nation. In modern era many names of teachers were used they are different level of teaching in telemetry the word teachers are used. Secondary the word lecture and in the higher study the word professor is used but the work of teacher is same at all the levels.

## **Discussion**

This study focused on the role of teachers in the ancient time and in the modern time this study is purely based on theoretical and concept in this studies behaviour and strategy of teachers for the teaching in pandemic time was discussed. Teachers make the design to teach the students. Some teachers went to student's house to check their homework and performance during pandemic. In this study we discussed about the objective of teaching and need of teachers and their role in students life.

## **Conclusion**

Teachers are the backbone of the society without teachers we cannot imagine the world. This study is based on the role of teacher for the students. Only education can make a better person and society. It

enhances various skills in human being. Teachers sets the goals of teaching and as well as for the betterment of students and work hard to achieve them. Just because of teachers' students can achieve the goal. Teacher's guidance will always different from anyone's guidances. Good communication skill, proper listing, adoptability is the main characterise of a teacher so we can say that only a teachers can build the nation.

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# CHAPTER VI

## SUSTAINABLE EDUCATION GOALS - INDIA'S JOURNEY

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### **Abstract**

United Nations has set Sustainable Development Goals 2030 where education has been emphasised as a tool for attaining these lofty Goals. India is striving hard to achieve the said goals by 2030. Education has received impetus in India and Higher Education is being revamped with introduction of new policies like NEP 2020. This paper focuses on shedding light on various challenges faced by INDIA in past and present. Currently, India is facing issues like low Literacy rates in poor and Gender Inequalities. This paper outlines a pathway for overcoming them with education. Education plays an important role shaping up the future. India has invested in HEI's by increasing their number and capacities. India has introduced New HEI's like IITs, IIMs, universities and other infrastructures. Policy changes like NEP 2020 has been duly introduced. India is on road to achieve these sustainable education goals set for ourselves but there is many a sip between the cups and the lips.

### **Introduction**

A sustainable society is one that is far-seeing enough, flexible enough, and wise enough not to undermine either its physical or its social systems of support. – Donella Meadows

### **The Challenge**

The world today has more knowledge than ever before, but not everyone can benefit from it. Globally, countries have made major strides in increasing access to education at all levels and increasing enrolment rates in schools, and basic literacy skills have improved tremendously. Among youth aged 15-24, the literacy rate improved globally between 1990 and 2016, increasing from 83.2% to 91.4%. Completion rates in primary school were 89.6% by 2016, and has witnessed a decline in recent years

dipping from 90.7% in 2012. Few countries have achieved gender equality at all levels of education. In addition, one in five children, adolescents, and youth are out of school, including 64 million children of primary school age, 61 million of lower secondary school age and 138 million of upper secondary age.

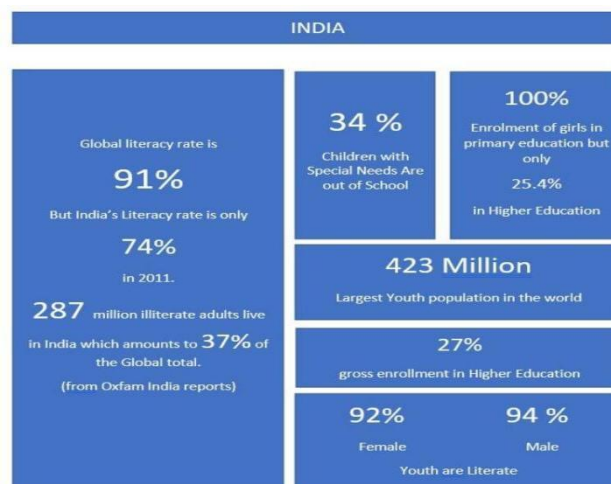
## Why Is This Important?

A quality education is the foundation of sustainable development, and therefore of the Sustainable Development Goals. As a policy intervention, education is a force multiplier which enables self-reliance, boosts economic growth by enhancing skills, and improves people's lives by opening up opportunities for better livelihoods.

The Sustainable Development targets for 2030 call for ensuring the completion of primary and secondary education by all boys and girls, and guaranteeing equal access to opportunities for access to quality technical and vocational education for everyone. Policy interventions will require improving access and improving quality, as well addressing relevant obstacles which include gender inequalities, food insecurity, and armed conflict.

## India And 4th Goal Of SDG

In India, significant progress had been made in universalising primary education, with improvement in the enrolment and completion rates of girls in both primary and elementary school. The net enrolment ratio in primary education for boys and girls was at 100%, while at the national level, the youth literacy rate was 94% for males and 92% for females. The new national Education Policy and Sustainable Development Goal 4 share the goals of universal quality education and lifelong learning. The flagship government scheme, Sarva Shiksha Abhiyan, is aimed at achieving universal quality education for all Indians, and is complemented in this effort by targeted schemes on nutritional support, higher education, and teacher training.



## **Targets**

1. By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and Goal-4 effective learning outcomes.
2. By 2030, ensure that all girls and boys have access to quality early childhood development, care and pre-primary education so that they are ready for primary education.
3. By 2030, ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university.
4. By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship.
5. By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples and children in vulnerable situations.
6. By 2030, ensure that all youth and a substantial proportion of adults, both men and women, achieve literacy and numeracy.

## **Endeavours Of India In Higher Education**

The global economic landscape is constantly in flux, with new opportunities arising and old ones disappearing. This has caused many businesses to shift their focus in order to remain afloat and successful. One of these businesses is higher education, where India has been rapidly developing its higher education system in recent years. Its efforts have been highlighted recently, when the Indian government announced that it hopes to become one of the top five global players in the higher education sector by 2025. Achieving this goal will be no easy feat, but the Indian government has shown great commitment to the project so far and seems to be on the right track. Since independence, India has prioritized the development of its higher education system and has invested heavily in it over the years. As of 2017, it had over 900 higher education institutions with more than 32 million students enrolled. Most of these institutions are state-run and provide basic education for students at different levels. However, there is also a thriving private higher education sector in India that caters to the needs of students across the country. The system in India is unique in the sense that it allows both public and private institutions to operate side by side. This is in contrast to the systems in other developing countries such as China, where government - controlled universities are the only institutions that are allowed to operate. In recent decades, Indian universities have also been making important strides in the research and development space. They have now established research institutes that are conducting research in areas such as agriculture, science



and technology, renewable energy and medicine. The government has also been encouraging foreign educational institutions to set up operations in the country and expand the reach of the higher education system in India. According to the World Education Forum (WEF) report, India is home to the largest number of foreign students in the world, with over two million international students enrolled in the country's higher education institutions in 2017. The report also shows that India is among the top 10 countries with the highest concentration of international students. All of this indicates that there is a high demand for quality higher education in India, and the government has been taking steps to meet this demand. Higher education is the top priority for the government's new 2030 plan, which is an ambitious strategy aimed at transforming the country into a \$5 trillion economy within the next two decades. Some of the key objectives of the plan include building a world-class higher education system and developing a skilled workforce capable of meeting the country's growing needs. In order to accomplish this goal, the government has introduced a number of reforms in higher education in recent years. Some of these measures have included introducing performance-based funding mechanisms to encourage institutions to improve the quality of their offerings and offering financial assistance to underprivileged students to enable them to access quality education. Despite these efforts, there is still some way to go in terms of improving the quality of India's higher education system. According to a WEF report, India currently ranks only 130th out of 136 countries in terms of the quality of its higher education system.

## **Challenges India Faces On Road To Achieve SDG 4 Goals**

In order to achieve the Sustainable Development Goals (SDGs), India has a number of opportunities it can take advantage of. India has the population and GDP to support its efforts, as well as a number of opportunities for partnership with other countries. However, there are a number of challenges that need to be addressed. These include inequality, lack of access to education, and corruption. Poverty is a significant problem in India, with about 25% of the population living below the poverty line. Women are also disproportionately affected by poverty. According to the World Bank, there are more than 50 million rural women living below the national poverty line. To tackle this issue, the government needs to focus on improving social protection programmes and ensuring better health and education for all Indians. The proportion of people with at least secondary education in India is relatively low compared with other countries. The government has made efforts to improve literacy levels but has yet to achieve its target of universal primary education by 2030. Corruption continues to be a significant challenge in the country. Transparency International's Corruption Perceptions Index ranked India 85th out of 180 countries in 2018. These challenges must be addressed to ensure that India is able to achieve the SDGs.

1. India has a population of over one billion people, making it one of the most populous countries in the world. This gives the country a unique opportunity to achieve the SDGs. The government should focus on addressing the needs of this large population in order to achieve this aim. This is especially important in

rural areas where a large number of people live below the poverty line. Improving social protection programmes and providing better health care and education for all will help to address these problems. MNREGA was introduced as scheme to alleviate rural poor by providing them employment opportunities and MNREGA has been continuously improved upon by successive governments.

2. India is one of the world's fastest growing economies. This should help to boost the country's ability to achieve the SDGs. The government has announced several initiatives with the aim of growing the economy further and creating more employment opportunities. Start-up India, Invest India, Digital India, Make-in-India programs are a few examples of such schemes to bolster employment opportunities. Increasing investment in infrastructure and the education sector will also increase economic growth and reduce poverty and inequality.

3. The Indian government has announced several measures to promote gender equality in the country. This includes introducing free school meals for girl children and increased financial support for women entrepreneurs.

## **NEP 2020 As Policy Tool To Achieve Sustainable Education**

India has a long history of poverty, inequality and corruption. In recent years, however, the country has made significant progress towards improving its human rights record. The SDGs provide a comprehensive framework for addressing these important issues and setting a framework for future progress. Achieving these goals will require strong and active leadership from the Indian government as well as commitment and support from all members of society. Recently Govt. of India introduced National Education Policy 2020.

### **Salient Points Of NEP 2020**

- Ensuring Universal Access at All Levels of schooling from pre-primary school to Grade 12;
- Ensuring quality early childhood care and education for all children between 3-6 years;
- New Curricular and Pedagogical Structure (5+3+3+4);
- No hard separations between arts and sciences, between curricular and extra-curricular activities, between vocational and academic streams;
- Establishing National Mission on Foundational Literacy and Numeracy;

- Emphasis on promoting multilingualism and Indian languages; The medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond, will be the home language/mother tongue/local language/regional language;
- Assessment reforms - Board Exams on up to two occasions during any given school year, one main examination and one for improvement, if desired;
- Setting up of a new National Assessment Centre, PARAKH (Performance Assessment, Review, and Analysis of Knowledge for Holistic Development);
- Equitable and inclusive education - Special emphasis given on Socially and Economically Disadvantaged Groups (SEDGs);
- A separate Gender Inclusion fund and Special Education Zones for disadvantaged regions and groups;
- Robust and transparent processes for recruitment of teachers and merit based performance;
- Ensuring availability of all resources through school complexes and clusters;
- Setting up of State School Standards Authority (SSSA);
- Exposure of vocational education in school and higher education system;
- Increasing GER in higher education to 50%;
- Holistic and Multidisciplinary Education with multiple entry/exit options;
- NTA to offer Common Entrance Exam for Admission to HEIs;
- Establishment of Academic Bank of Credit;
- Setting up of Multidisciplinary Education and Research Universities (MERUs);
- Setting up of National Research Foundation (NRF);
- 'Light but Tight' regulation;
- Single overarching umbrella body for promotion of higher education sector including teacher education and excluding medical and legal education - the Higher Education Commission of India (HECI) - with independent bodies for standard setting - the General Education Council; funding- Higher Education Grants Council (HEGC); accreditation- National Accreditation Council (NAC); and regulation- National Higher Education Regulatory Council (NHERC);

## Conclusion

India has a number of strengths that can serve as a platform for achieving the SDGs. The country has a young and growing population and an increasingly diversified economy. It has a strong tradition of democracy, respect for rule of law and a well-developed civil society. India of tomorrow has been envisaged as a nation of Builders, Leaders and Visionaries who will steer the growth and prosperity of not only India but of world. To achieve these lofty aims, India has endeavoured to accept the SDGs to core and with introductions of NEP 2020 where directives for change have been issued by Government of India to Higher Education Institutions to initiate changes like emphasis on equating the gender gap in Higher education, upgrading the higher educational infrastructure by inciting colleges to upgrade themselves to autonomous educational institutions with autonomy in formulation and granting of degrees in relevant demands, teacher education has been updated with introduction of 4 year programs with modules for training as teacher included in degree, so as to prepare Teachers for next Generations. Emphasis has been placed to enhance the infrastructural and institutional support for Differently-abled persons to achieve mainstream education. India is on course to achieve great heights in upcoming future nurturing qualified individuals to steer themselves and fellow countrymen to prosperity.

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# CHAPTER VII

## INCLUSIVE EDUCATION SYSTEM WITH HAPPINESS CURRICULUM

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### **Abstract**

In the context of India, the article examines the education of children representing marginalized communities, with a spotlight on children with disabilities. It delves into the Indian government's efforts to build special schools, along with its integration initiatives and more contemporary concentration on inclusive education. The core idea of inclusive education revolves around providing education to all people, regardless of caste, creed, or handicap, so that they may learn to live and prosper in society with empathy and equality. The current curriculum aims to enhance cognition, language, literacy, numeracy, and the arts. With a child-centered pedagogy that prioritizes children's experiences and active engagement, with the objective of providing a stimulating atmosphere for learners. This curriculum is based on the idea that assisting students in developing important skills linked with happiness would improve their academic and life outcomes. The importance of sentiments in training has long been recognized, yet they are frequently disregarded. The impact of one emotion, happiness, on learning and the school curriculum is examined in this article. Simultaneously, growing data from psychology and neuroscience suggests that happy moments are connected to human growth, health, and development. We appear to be more responsive to outside cues when we are joyful than when we are unhappy or worried. Happiness also makes us more inclined to engage in creative endeavors, which is a source of fulfillment in and of itself. Recent media stories regarding new school-based 'happy courses' suggest a positive interest in children's happiness. However, the presuppositions of the rhetoric in which many of these suggestions are constructed, as well as their orientation towards specific strands of positive psychology, include anti-educational views about human life.

**Keywords:** Disability, Education for all, Inclusive Education, Handicap, Health, Happiness.

## Introduction

Inclusion is a major governmental programme aimed at improving educational opportunities for children with special needs and disabilities. Inclusion is supported on two pillars: students have a right to be included in regular schools, and that inclusive education is more successful. The teaching of pleasure and well-being raises larger problems about the nature and purpose of education itself. If we believe on any level that teaching young people about happiness and well-being is a good thing, we must also acknowledge that education itself contributes to children's happiness and well-being. Teachers employ a number of engaging teaching tactics in the classroom, including active participation, to relate learning to life beyond the school, and encourage learners to use skills in their lives. As a result, students should be able to enhance not only their academic abilities but also their co-curricular skills of mindfulness, critical thinking, introspection, and inner stability as a result of this new curriculum. The economy has grown fast in recent decades, but life happiness has not improved at the same rate. Depression, suicide, and distrust symptoms all increased dramatically at the same time, rather than decreasing. The findings of a study that looked into a variety of elements that influence happiness. The more successful a society is, the more social ties it has, rather than the amount of money it has. The influence on public welfare is estimated to be significant. Prior to higher education, inclusive education was established and applied in school contexts with curriculum for happiness. Inclusive education is founded on the premise that all children and young people, regardless of perceived social, emotional, cultural, intellectual, or linguistic differences or disabilities, should be provided for in local schools. As people have become more conscious of the exclusionary forces linked with migration, mobility, language, ethnicity, and intergenerational poverty, the notion has lately broadened to include larger concerns of social diversity in certain nations. To put it another way, inclusion must be viewed as a never-ending quest for new methods to respond to diversity. It's about figuring out how to live with and learn from differences. In this approach, differences between children and adults are seen more positively as a stimulus for learning. The term 'inclusion' refers to the process of identifying and removing obstacles. As a result, it entails gathering, integrating, and assessing data from a range of sources in order to prepare for policy and practise improvements. It's all about leveraging multiple types of evidence to encourage creativity and problem-solving. All pupils must be present, participate, and accomplish in order to be considered included. Here, 'presence' refers to where children are educated and how consistently and punctually, they attend; 'participation' refers to the quality of their experiences while they are there and, as a result, must include the learners' perspectives; and 'achievement' refers to the outcomes of learning across the curriculum rather than just test or examination results.

## **Inclusive Education: What Does It Mean?**

The term 'inclusive education' has been defined in a variety of ways. United Nations bodies and treaties such as the Convention on the Rights of Persons with Disabilities and the Incheon Declaration provide some of the most authoritative definitions. According to the United Nations Committee on the Rights of Persons with Disabilities (UN 2016), inclusive education is defined as:

- a fundamental right to education
- a principle that values students' wellbeing, dignity, autonomy, and contribution to society
- a continuous process to remove barriers to education and promote reform in school culture, policy, and practise to include all students

## **Happiness And Well-Being In Educational Contexts - A Definition**

This section presents a framework for what we mean by 'building back happier' in education before looking at case study examples of how education institutions and instructors foster happy learners. While the phrases 'happiness' and 'well-being' are sometimes used interchangeably, it is critical to understand the differences between the two. Of course, happiness might mean different things to different people. The Emotional State Theory of Happiness is a term used by psychologists to describe a person's present emotional state or feeling. However, using the word happiness to describe a person's ephemeral emotional state is not the same as using it to describe a joyful existence. The degree to which a person thinks their life corresponds with their ideal vision for their own life, as well as high levels of health and subjective well-being, is indicated by this use of the term, and is sometimes referred to as the Life Satisfaction theory of happiness. This definition of happiness is more relevant to the overlapping notions of well-being and resilience, which are contributing variables to typical life satisfaction measurements such as feeling well and belonging to healthy families and communities. It must be admitted that there are clear doubts about what positive psychologists are measuring when they claim findings like 'some 45 percent of the wealthiest quarter of Americans are extremely happy, compared to only 33 percent of the lowest quarter' (Layard, 2005, p. 30). Layard describes pleasure as 'feeling good' and is pleased about neurological discoveries that assess brain activity that corresponds to 'people's reported feelings'. Positive psychologists have developed a variety of scales on which they map self-reported responses to a variety of questions aimed to gather information about respondents' degree of pleasure or contentment. Of course, the link between mental states, neurological functioning, and mood or stable character trait attributions is at the heart of philosophical inquiry into the human mind, and I have no intention of returning to these discussions.



## **Inclusive Education's Need and Importance**

Inclusive education is a requirement of today's Indian society since it aims to bridge the gap between special education, integrated education, and the general education system. eliminate exclusion and all forms of prejudice that are present in today's educational system:

**1. Education Universalisation:** Inclusive education contributes to our goal of education universalization. It is only feasible if education is expanded while taking into account the children's mental and physical health, requirements, and other assets. This educational approach emphasises the need of adapting school curricula, particularly at the primary school level, to the requirements of pupils, both in concept and in practise.

**2. Helping To Develop An Inclusive Society And Culture:** Whereas segregation in the form of special schools and special classes promotes sentiments of isolation and deepens the gulfs between the handicapped and non-disabled, inclusion in the form of inclusive education draws them closer together. They have great opportunities to get to know and understand one another, and they begin to cooperate and interact in school curriculum and co-curricular activities. Gradually, the negative attitude created by non-disabled peers toward disabilities and handicapped children is transformed into a positive and favourable attitude, leading to the formation of an inclusive society that respects the individualities and various capacities of each other.

**3. Nation Development:** Development in several sectors is necessary to create a nation cohesive and powerful on the world map, to which every citizen should participate. But how can a huge number of individuals participate if they are not given the opportunity to realise their potential as Virtualities? UNESCO stated during the International Conference on Education, which was held on November 25-28, 2008 in Geneva, that despite considerable progress toward basic education since 2000, more than 72 million children did not have access to any school.

**4. Overcoming Poverty:** Poverty is a scourge for both the person and society. It is a significant impediment to schooling. It results in poverty, prejudice, and exploitation. A vicious cycle is formed. An educated individual understands his or her responsibilities and rights, and he or she may be proficient in certain unskilled, semi-skilled, or skilled work. He may be less exploited and prejudiced against than his uneducated competitors. He can halt the cycle of poverty, exploitation, and suicide deaths. Inclusive education may be a valuable tool in expanding access to education for the disadvantaged.

**5. To Improve Education Quality:** One of the primary goals of inclusive education is not just 'Education for All', but also 'Quality Education for All'. This may appear to be a daunting task, but it exists, and education is prepared to fulfil it. Quality education may be determined primarily by:

- Curriculum tailored to the requirements of the pupils.
- Proper opportunity for pupils' potential to be utilised and developed.
- Teaching tactics that cater to students' interests, talents, and aptitudes.
- Evaluation based on the pupils' strengths and shortcomings.

Adequate and immediate reinforcement available, and so on. It is apparent that these inclusive education rules will, of course, compel better education.

**6. To Achieve Social Equality** - Inclusive education is the space for social equality realisation and attainment. It serves as the foundation for what our constitution has made permissible in terms of educational and vocational training and placement options. Prejudices, preconceptions, and bigotry may all be eliminated via education. Only a fully educated person can see that all humans are equal because everybody has an equal right to education in order to earn a living and support his family.

**7. Individuals Create a Society, And Society Is A Reflection Of Its Individuals' Development And Empowerment.** Education is important in the construction of society, and the growth of any of its members is dependent on his or her hard work, knowledge (information), and abilities, as well as the progress made in a particular subject or area of life. As a result, society's empowerment and strength are dependent on the advancement and pleasure of its members. Every youngster must be able to reach his or her true self in order to play a good part in making society a healthier place to live in today's world. A society that is evolved and empowered cannot be built by a few rich and educated people.

**8. To Carry Out The Constitutional Responsibility:** India's constitution, through various plans and policies such as compulsory Primary Education, SarvaShiksha Abhiyaan, Right to Education, and Education for All, is obligated to provide every citizen with equality of status and equal access to education from the day it declares itself a sovereign democratic secular republic. Inclusive education is an endeavour to uphold the ideal of equality by allowing every child the right to receive an education in a school that accommodates his or her physical, psychological, and socio-cultural/background peculiarities

**9. Use Of New Technology:** We live in an age of sophisticated technologies such as computers, the internet, laptops, and satellite channels, among others. However, a huge majority of our schools, particularly elementary schools located in distant rural regions, are still in the chalk and blackboard era. Inclusive education promises to use cutting-edge educational tools to educate youngsters on a variety of topics.

**10. Democracy Requires Decent And Responsible People For The Growth Of Healthy Citizenship.** One of education's goals is to instil in students the values of healthy and democratic citizenship. Along

with non-impaired children, inclusive education takes handicapped children into account so that they, too, may become healthy and responsible citizens of India. Inclusive education teaching practises such as child-centered teaching, cooperative teaching, and tutoring teaching, among others, aid in the development of healthy citizens.

**11. Family Consolation And Solace:** Inclusive education alleviates the sorrow of families, particularly those with impaired children. It is a great relief for the parents of these children when their children are admitted to the regular school and they are assured that the school would make every effort to realise these children's potential. It is also important to them that their ward get education while being with them and not being sent to special schools.

**12. Individual Life And Development:** The primary goal of inclusive education is to allow each kid to grow and live a happy life in the future. In this regard, he is the focal point of all instructional programmes. His unconditional acceptance at school, as he is and not as he should be, is the first key aspect defining his healthy growth. The cornerstone of his healthy growth begins late from here. As a result, inclusive education is important for the child's healthy physical, emotional, social, and mental development in the following ways:

- Inclusive education allows pupils to comprehend and respect the beneficial characteristics of others.
- Children learn to assist one another in academic and extracurricular activities.
- The handicapped children obtain all sorts of aid in a natural way in the liberal atmosphere of school.
- Through interaction with impaired children, non-disabled youngsters learn many truths of life and have the opportunity to see them correctly.
- In this strategy, children assist each other in learning, such as peer tutoring, so that they may relax and feel more at ease.
- It offers an opportunity to smart but impoverished youngsters to build enough idea of self-esteem as they go forward to support their counterparts who are somewhat weak in one or the other disciplines of study.

## **Literature Review**

Haybron (2003), pointed out theories of happiness, There are three basic points of view:

1. Hedonic theory - Happiness is defined as the majority of pleasure experienced.
2. Eudaimonic theory - In general, happiness is defined as having a positive attitude about one's life in

general or only for a certain period of time.

3. Affective state theory - Total happiness is determined by an individual's overall emotional state.

**Lindsay, G. (2003)** in their empirical study identified the studies of processes that affect the efficacy of inclusive education. Teacher practice is at the center of all education; as a result, their involvement in the creation of inclusion is crucial to its success. Teaching assistants, attitudes, and actions have all been mentioned as essential variables in inclusive education achievement. Although the focus of this study has been on the impact of inclusion on students with Special Educational Needs, it is also fair to assess the effects on students who do not have Special Educational Needs.

**Jackson et al. (2008)** studied the dynamic relationship between context, curriculum, and student learning and wrapped up with two disclaimers: First, the study after reviewing theory and research are not intended for individual practitioners or family members who deal with children in self-contained settings. Many of us know people who labour within the limitations of self-containment, either by choice or by necessity, and who are making a difference in their children's lives. Here, a comparison to the civil rights struggle is useful. Second disclaimer addresses any misunderstandings that a reader could have concerning our belief that general education contexts are remedies for special education's faults, and that inclusion in general education contexts corrects what is wrong with education. We don't believe in such things. We are well aware that we are exchanging one set of issues for another.

**Egan (2008)**, pointed out Bertrand Russell recognised [three different purposes (p. 9): (a) socialisation, defined as promoting the assimilation of cultural traditions and social roles in a society; (b) academics, defined as teaching the codes and learning processes associated with literacy; and (c) individuation, defined as configuring educational processes to enhance individual growth.

**Loreman et al. (2009)**, inclusive education has the following characteristics.

- All of the youngsters go to their neighbourhood schools.
- Zero Rejection' principle, which means that all children are accepted and cherished regardless of caste, creed, skills, and so on.
- Sufficient resources and personnel training.
- Learning in regular, diverse classrooms with classmates of the same age.
- Common study programmes for everybody, with content that may be customised and updated as required.
- Different styles of training that are sensitive to the requirements of everybody.

- Appreciating everyone's involvement to normal school and classroom learning activities and events.
- Have social success among their peers.

**Owens et al. (2012)** studied the Continuities in Education and roles of elders in education for indigenous students and observed the elder's role and child's education, 'the child in the family', 'social environment', 'elders in the community', 'elders'role in the school'. The school that works with the community can establish the relationships, trust, and respect of the learners as a continuation of ecocultural pedagogies and knowledges established within the family and community. This is through equal partnerships., listening in yarning, planning with community, and involving Elders, Community, and family in schooling.

**Schuelka, M. J. (2018)** highlighted implementation tactics that work. One of the most common misconceptions about inclusive education is that it requires a lot of resources. Many policymakers consider the price of resources like specialised teachers and equipment first. Inclusionary education, on the other hand, has been proven to be cost-effective in research after study. The study will concentrate on three areas of implementation: school structure and culture, teachers, and school leadership. These will be depicted in stages in the following synthesis of the literature.

Stage 1: Initial Review and Evaluation to Define Success

Stage 2: Get Teachers Trained and On Board

Stage 3: Leaders Should Demonstrate Positive Values

**Dyer et al. (2022)** highlighted the Social Contract and right to Education. The study stressed on the issue of responsibility in India's right to education act and suggested the access to schooling and relations of responsibility in social context. The study analysed India's Right to education Act as a ' social contract'that assigns to multiple actors — parents, teachers and officials of the state at various levels — a mutual duty to uphold the provision of education as a fundamental right.

- The Responsible State: Incentivization and Exclusion
- The Responsible Parent: Educational Priorities in Contexts of Poverty
- The Responsible Parent: Educational Priorities in Contexts of Poverty

## **Pedagogies That Are Creative And Play-Based**

The use of creative techniques in education has a high potential to develop protective processes that encourage resilience through meaning-making, since research suggests that the capacity to attach meaning

to adverse situations can aid in the promotion of good coping mechanisms. Haise highlights the relationship between creativity and resilience, with creative expression providing a safe haven for people during stressful times and aiding in the development of resilience qualities such as problem-solving, autonomy, social competence, and a sense of purpose. Art activities carefully led by educators can allow for expressiveness, meaning-making, and resilience development. Expressive arts can give a space for nonverbal exploration of safety, rebuilding a feeling of control and self, and emotional regulation for children who have faced trauma.

## **Summary Of Findings**

Educational transformation and system change are required for successful inclusive education. However, most of this improvement is centred on design and is not resource-intensive. It is critical to emphasise that inclusive education implies that all students spend the majority of their day together in mainstream classrooms. This has been shown to improve student success and social well-being in all students, and it is significantly more efficient and effective than special schools and special classes. The terms 'inclusive education' and 'education for children with impairments' are sometimes used interchangeably. While this is still the fundamental incentive for inclusive education, good inclusive practice will benefit all students regardless of ethnicity, language, gender, or socioeconomic position.

The Paper on Inclusive Education System with Happiness Curriculum underpins the focus on ideas, which incorporates the cognitive and social components of functioning. As a result, the objectives are as follows:

- Learners' self-awareness and mindfulness should be developed.
- Instilling critical thinking and enquiry skills in students;
- To allow students to communicate efficiently and freely and artistically express themselves;
- To help students develop empathy and understand their own relationship expectations in order to have good connections with classmates and instructors, and
- To empower students to integrate life skills to their studies.

## **Conclusion**

All in all, creating inclusive policies and practises in rapidly changing educational institutions is a difficult task. As a result, this work is an attempt to contribute to a better understanding of these difficult topics in the area. As a result, it is hoped that the concepts expressed here will spark thought and debate in ways that will enable the inclusion agenda to go further. We finish by looking at various policies,

methods, processes, and activities that might help ensure the success of all kids. We think that a series of adjustments, both institutional and classroom-based, should be explored in education in order to progress toward a more inclusive education system. The right of children to be included in mainstream education and the notion that inclusive education is more successful have both been used to promote inclusive education with a happiness curriculum. The recognition that the challenge of inclusive practice is to acknowledge and respond to human diversity in ways that are different from what is done in the classroom on a daily basis. Rather than doing something 'extra' or 'different' from what is available to others, the teacher tries to extend what is normally available to all. A revolution in thinking about teaching and learning from what works for most learners plus something 'extra' or 'different' for those who struggle, to the development of courses and learning opportunities that allow all learners to engage in classroom life. Inclusion places special attention on students who may be at danger of marginalisation, exclusion, or underachievement. The capacity of young people with disabilities to achieve adult status might thus be viewed as a measure of the effectiveness of service provision throughout the transition years in overcoming the negative implications of disablement. This implies a moral obligation to guarantee that those groups classified as statistically 'at risk' are closely watched and, when required, efforts are made to secure their presence, engagement, and accomplishment in the educational system.

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# CHAPTER VIII

## ROLE OF DATA MINING FOR IMPROVING STUDENT PERFORMANCE FOR SOCIAL CHANGE

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### **Abstract**

In recent years, educational data mining has attracted a lot of attention. The main goal of educational institutions is to give students a high-quality education in order to improve their academic performance. Students' success is influenced by a variety of factors, including their behavioural, academic, and personal characteristics. Before establishing a performance development program, it is necessary to map out the student's current situation. Predicting a student's success is a major challenge for higher education administrators. To determine the students' choice of higher education, predictive tools and techniques will be created to forecast student behaviour, attitudes, and performance. It is easier to increase student achievement when performance predictions are made early. In order to meet a criterion for quality education, there have been several attempts to forecast student performance; unfortunately, the prediction accuracy is not satisfactory. The goal of this work is to address every facet of educational data mining. Furthermore, a paradigm for forecasting student success is offered and evaluated.

**Keywords:** Educational Data mining, Academic Performance, Social Change

### **Introduction**

Students and alumni in higher education encounter significant hurdles. Institutions want to determine, for example, which students will enroll in specific course programs and which students will require support to graduate. Is it true that certain students are more likely to transfer than others? Which alumni groups are most likely to make pledges? Aside from these problems, conventional difficulties like enrollment management and time-to-degree continue to inspire higher education institutions to seek better solutions. One efficient approach to solving these student and alumni concerns is data analysis and

presentation, often known as data mining [1]. The majority of research, parents, educational institutions, and governments worldwide are particularly interested in and concerned about students' academic achievement in institutions. It is crucial that educational institutions keep track of their students' academic progress and implement the necessary corrective actions [2]. A number of elements are taken into account while evaluating an educational institution's performance. The institution has to improve its ranking in light of these issues. To achieve exceptional performance, educational institutions focus on delivering high-quality education. Students' academic performance is reflected as a key factor in the rankings of higher educational institutions [3]. For instance, data mining can offer an institution the information it needs to act before a student drops out or it may assist an institution allocate resources more effectively by giving an accurate projection of how many students will enroll in a certain subject.

### **Main Steps Of Data Mining Are:**

1. Data Collection: First of all, data are collected offline/online mode or UCI repository database.
2. Data Preprocessing: whenever data is collected through online/offline mode, it may have some missing values, or not applicable values. So, various pre-processing techniques are available to preprocess the data.
3. Data Analysis: When data is preprocessed, analysis of data takes place. In this various data mining algorithms are used to predict the students' performance.
4. Data Interpretation: In the last stage, after analysis we get the various factors that affect the student performance. It may be behavioral, social or geographical etc.

### **Data Mining Techniques And Their Application In Edm**

In order to address educational challenges, EDM uses study data as a starting point. It makes an effort to look into undiscovered patterns after examining curriculum, learning behaviour, and student family data acquired from various educational institutions. The EDM hopes to get a clearer understanding of the reasons and effects that currently exist in the educational system.

Machine learning is technique in which computer learns itself. It is the new era of data mining that allows a computer program to grow increasingly accurate in predicting outcomes without explicitly programming it. These are three types of machine learning: supervised learning, unsupervised learning, and reinforcement learning, supervised and unsupervised learning techniques employ labelled training data for inference (classification, regression), and unsupervised learning techniques employ unlabelled data to identify existing hidden patterns (clustering), whereas reinforcement learning based on reward and punish. It is about taking suitable action to maximize reward in a particular situation [4].

There are various algorithms used for classification and regression techniques. The act of transforming an input collection of instances P into a unique collection of characteristics Q, also known as target attributes or labels, is known as classification. Classification techniques such as decision tree classifiers, Bayesian classifiers, artificial neural networks, nearest neighbour classifiers, random forest, and support vector machines are used in various applications [5]. We will quickly go over each of them. Each strategy is based on the learning algorithm that it utilizes.

- **Decision Tree:** A decision tree is a graph in which instances are categorized by arranging them in accordance with the values of their feature attributes. Each node in the decision tree represents a categorization instance, and each branch represents a potential value that the node might take on. Instant categorization begins at the decision's root node, and instance sorting is carried out using feature values.
- **Artificial Neural Network (ANN):** The biological neural networks that make up animal brains serve as the foundation for artificial neural networks (ANNs). Since linked nodes and directed linkages are present, ANN is sometimes referred to as a connectionist system. The task of transmitting a signal from one node to another is carried out by each linked connection, which is given a weight. Before sending a signal to another node, a node examines the one it receives. In ordinary ANN implementations, the signal at the link between artificial neurons is an actual number, and the output of each neuron is determined by a non-linear function of the sum of all its inputs. Because of the weights of artificial neurons and the connections between them, the signal intensity rises or decreases as learning continues [6].
- **Random Forest (RF)** Random forest is a supervised machine learning technique composed of a forest of judgments produced by many decision trees produced using random vectors. Regression operations and classification problems can both be solved using this technique. The probability of obtaining more accuracy increases with the number of trees in the random forest, which is correlated with the number of trees combined in the forest. The crucial distinction between creating decision trees and constructing the forest must be understood [7].
- **Support vector Machine (SVM):** The categorization model used in supervised learning is called the Support Vector Machine (SVM). The classification industry has shown a lot of interest in it. Instances of the various categories are clearly separated from one another in vector space by the SVM model. A new sample is mapped into the designated vector space when it comes in, and depending on which side of the gap it falls on, its label is given a category. By utilizing the kernel approach, an SVM can do non-linear classification successfully.
- **Cluster Analysis:** Clustering, also known as cluster analysis, is the job of arranging a collection of things so that elements in one group are more similar to those in another. As the similarities between things in one group and the dissimilarities between things in other groups rose, so did the clustering. Clustering is the cornerstone of data mining and may be employed in various applications like image processing, data compression, computer graphics, machine learning, and many more.

**Table 1****Various Data Mining Techniques and Their Role in Education Data Mining**

<b>Techniques</b>	<b>Purpose</b>
Classification	<ul style="list-style-type: none"><li>● Detection of student behaviour</li><li>● Development of domain model</li><li>● Discovering students leaning styles and preferences</li><li>● Understanding the educational outcomes of the students</li></ul>
Clustering	Grouping similar students based on learning behaviour and their performance
Predictive Model	<ul style="list-style-type: none"><li>● Prediction of either student is eligible or not for particular course</li><li>● Predicting of either a student qualifies a course or not</li></ul>
Relationship Mining	<ul style="list-style-type: none"><li>● Discovering the curriculum associations in a course</li><li>● Finding bottlenecks in specific study programs</li></ul>
Visual Analytic	Analysis of educational processes or erudition outcome by visualizing the model
Discovery with Models	<ul style="list-style-type: none"><li>● Student characteristics or contextual variables</li><li>● Determining the relations among different student behaviors</li></ul>
Refinement of Data for Individual Decision	<ul style="list-style-type: none"><li>● Labeling the data that helps in the improvement of the prediction model</li><li>● Identification of the student's learning patterns</li></ul>

## Conclusion

Higher education institutions are becoming more and more conscious of their status as service providers, with students acting as their primary clientele. One of the major priorities for higher education institutions is raising student performance. It is vital to map out the existing state of the students before designing a performance improvement program. For higher education administrators, predicting a student's performance is a huge task. Early prediction of student performance assists in the implementation of measures to increase student achievement.

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# CHAPTER IX

## INFLUENCES OF GLOBALIZATION ON INDIAN EDUCATIONAL ENVIRONMENT

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### **Introduction**

Globalization is a concept which has brought the economies of the world into a single frame. Globalization has impacted the economies in a drastic way. Be it business, Health, environment, education, tourism, no sector has remained untouched with globalization. With the movement of factors or resources from one place to another globalization has been able to peep into each and every aspect of each and every sector. Globalization has brought structural changes in education sectors well. Education sector in India is growing at a fast pace with various large number of private stakeholders joining the industry each coming day. Education system has been developing in India since ages when in ancient times '**Guru Kula**' system of education was there when shishya (students) used to live with 'gurus' in same house to the current system where a Pyramidal system of education system has been adopted. This type of structure includes various levels like pre-primary level, Primary level (elementary), Secondary level and Higher education. Our government has been proactive in developing education at various levels. Government has introduced various schemes under Right to Education (RTE) Act. For development of education. Various schemes introduced by Government include Sarva Shiksha Abhiyan (SSA) (for primary level), Rashtriya Madhyamik Shiksha Abhiyan (for secondary level) and Rashtriya Uchhatar Shiksha Abhiyan (RUSA) (for higher education). The Government of India is also bound to fulfill the

Sustainable Developmental Goals related to education. Under this Scheme as a UN member Government must ensure education for all with equitable, inclusive and quality education along with promotion of lifelong opportunities for all by 2030. Government is trying to enhance education system on its own level but one major external factor that is putting impact on education is Globalization.

### **Objectives Of The Paper:**

- To study the positive impact of globalization on education
- To study the Challenges of Globalization on education

### **Some Favorable Impacts Of Globalization On Education**

Globalization has assisted many regions in evaluating their system of education and their rate of education. Globalization is an advanced phenomenon that has a deep effect. Sense of Globalization differs from person to person. **According to Cheng (2000)**, 'It may refer to the transfer, adaptation and development of value, Knowledge, technology and behavioral norms across countries and societies in different parts of world.' **UNDP in Human Development Report (1999)** describes Globalization as the increasing interdependence of the world's inhabitants'

### **Globalization Helps To Lead Some Positive Impacts On Education Such As -**

- Enhancing world level understanding of educational principles and course of actions.
- It develops cross cultural teaching learning strategies and improves various competitive learning resources.
- Globalization tends to enhancing the effectiveness in every phase or level of learning.
- Globalization has developed so many avenues for education.
- Globalization helps to increase competition and ensures efficiency as well improvement at every phase of education.
- Globalization is a motivational force for all the educational Institutions such as schools, Colleges and universities because emerging trends of different countries related to education attracts other countries too.
- Globalization has also resulted in so many advanced challenges to technical learning system.

## **Globalization And Education- Challenges**

No doubt, Globalization seems to be inescapable to almost every country and so many trials and efforts have been provided to accept it with an objective to develop and evaluate our community. Globalization is a wonderful chance for sharing themes, strategies, technology, societal worth and behavioral ethics and developing evaluations at many stages such as Individuals, Corporates and Societies across different regions. At the same time, Globalization potentially creating consequential worse impacts for some developing and under developed countries. This is the reason that there are so many societal motions in many regions against the emerging trade of Globalization. In Particular, these negative impacts include the following:

- Enhancing the mechanical space between developing and under developed countries.
- Development of Commanding Culture.
- Enhancing inequalities and disputes between various regions and their cultures.
- Creating more and more advancing opportunities for already advanced countries.

## **Globalization And Differing Access To Education**

Although, the Higher Education has gained an important place in the knowledge society under world economy. But the obstacles faced are immense and far reaching. Globalization has affected the primary education in India in opposing ways. The children of modern society have so many ways for learning and at a same time children face a highly determined world now days. Although the main objective of education is to make students enhance their capacity and Globalization has put high force upon modernized education system to create champion. Some of the negative impacts of Globalization on school students are:

- Differing Access
- Impact of Globalization on schools
- Impact of Globalization on Higher Education

## **Impacts On Schools**

Schools are the primary learning institutes. The effect of globalization on schools are as follows:

- Local schools are hard to compete with more advanced schools.
- Most of the learners having problems with languages and technology used in various school systems.



- Disappear of local culture because the culture of world replaces the local ones.
- Exploiting local school policies and destroying and destroying indigenous school education system.
- The major problem is schools are hard to use various international teaching learning strategies in their classrooms.
- E-Learning is major component of globalization and it becomes difficult for Indian schools to ensure the computer based learning or virtual learning for all the schools in different areas of India, so it generates the gap in education system.
- International education is turning into the important agent of instructions. So, English dominates the other languages and it adversely affects the teaching learning mechanism of learners.

### **Impact On Higher Education:**

There are some impacts of globalization on Higher Education are as follows:

- **Marketing of Education:** Education is not a commodity but still it is treated as a commodity because due to globalization education suffers a lot as a large portion of education system because private and private force charges a lot from the people and it make the education here a commodity.
- **Impact on Teacher Training:** The World Competitiveness, quick amendments and continue learning and non-rigid ways of learning have their implications on teacher education also. Globalization has focus on Skill and Vocational educations as well as ICT based learning and not everyone is able to track these advancements so early.
- **Impact on Education Norms:** Globalization has affected our higher education policies a lot. Various commissions and committees put them in stress zone due to their restricted norms, rules and regulations. Government of India has followed these committees for the development of education system but indirectly they forced our education system to accept the change whatever they want.
- **Entry of Alien Educational Institutions:** The Foreign Educational Institutions and Universities has put some dominating pressure on the Indian education as they want more and more development of education as well as their institutions but it become difficult for Indian system of education to compete with them.

### **Conclusion**

Globalization creates an environment of strong and healthy competition with foreign educational institutions resulting in the aggressive growth of students and teachers across the globe. The education

system is experiencing constant changes under the effects of Globalization. Due to the expeditious development in the Student Information Systems and communications are to be seen in higher education. Due to the changes in school system across the globe: the ideas, values and knowledge are changing the roles of students and teachers and make the education ecosystem from an industrialized to an information-based society.

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# CHAPTER X

## MARKETIZATION OF EDUCATION - AN ALARMING CONCERN

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### **Abstract**

Marketisation is the process whereby an industry is exposed to market forces, i.e., demand and supply. This further makes the industry more competitive, organised and competitive. It refers to an educational policy that encourages schools and educational institutions to compete against one another. This is a process of running educational institutions like businesses and was initially spurred on by the trend pushed by the Education Reform Act of 1988 in England, which introduced Key Stages, the National Curriculum, and League Tables. In India, the concept of marketization of education stems from reforms made in the last three decades. It was introduced as a product of the LPG Regime in 1991, whereby the education industry was privatised and opened for foreign companies to tap into. The marketisation of education in India is based on the so-called notion that 'higher cost, high quality infrastructure and programmed, cumulated evaluation structure will result in the better performance of students.' Another Indian mentality is that the popularity of schools and colleges is directly proportional to the quality of education provided. This paper highlights the various adversities of the marketization of education. Traditionally, higher education was regarded as a vehicle that took an individual from an attainer of knowledge to a valid job holder. It was viewed as an instrument of personality development for individuals to have a better standard of living and an instrument of production and economic growth, thereby ensuring the economic well-being of people and societies. The marketisation of education

impacts students directly; it not only affects the quality of education but also the perception of educational institutions in general. Today, university students increasingly view education and the time they spend at university as a means to an economic end, a way of ensuring profitable employment. It means, in essence, education is depleting and competition is overtaking it.

**Keywords:** Marketization, Neo-liberalization, Commercialization of Education, Education as a Commodity.

## **Introduction - Marketization of Education in India**

In recent times, the evolutionary shift of education from service to business is a matter of concern. Marketisation is the process whereby an industry is exposed to market forces, i.e., demand and supply. This further makes the industry more competitive, organised and competitive. It refers to an educational policy that encourages schools and educational institutions to compete against one another. The LPG reforms of 1991 and other educational reforms have led to the expansion, privatization, and internationalisation of the Indian education sector. The impact of the marketization of education is so subtle that it often goes undetected, but it is really dreadful. The marketisation of education in India is based on the so-called notion that **'higher cost, high quality infrastructure and programmed, cumulated evaluation structure will result in the better performance of students.'** Another Indian mentality is that the popularity of schools and colleges is directly proportional to the quality of education provided. This paper highlights the various adversities of the marketization of education. Another, alarming effect of the marketization of education is that it has side-lined not only the interests of the students and their personal development but also the quality level of education that students receive. This calls for government intervention, which will address and correct systematic anomalies. The unchecked continuance, persistence, and growth of marketization will result in the exploitation of anything and everything and the manipulation for profit of education.

Although the functionalists favour the marketization of education, they highlight various advantages of marketization, namely

- Parents can now choose from private schools, academies, faith schools, and free schools. With more schools opening, parents will have more choices. There is also more private investment in education than ever before.
- It creates competition between schools
- Schools are trying harder to push and encourage students
- Employment opportunity

- Personality development and Economic Development
- The development of society
- The ability to overcome global challenges

While its critics highlight these negative aspects, as stated below,

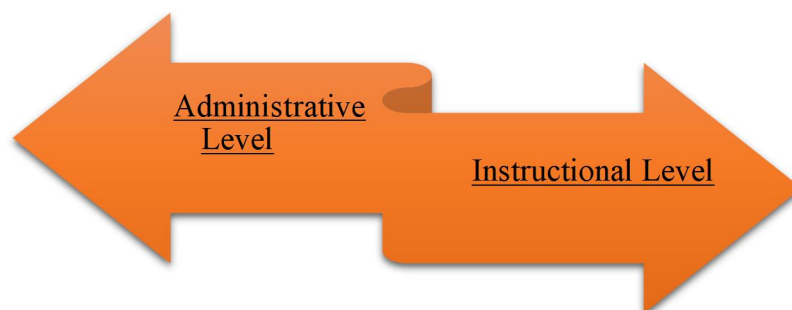
- More emphasis on marks and grades
- Inability to maintain the principle of quality
- Materialistic outlook
- High costs
- Profit-oriented
- Schools which fail to establish themselves as a big brand are under subscription
- Schools which are doing well and have become a brand name are oversubscribed too
- No good for unprivileged working-class students

### **Marketization Of Education - Levels**

Marketization of education occurs at two different levels:

**Figure I**

**Levels of Marketization of Education.**



#### **ADMINISTRATIVE LEVEL-**

- Running educational institutions like an enterprise.

- focusing on budgetary cost minimization.
- product-based evaluation of students.
- differentiated and new hiring policies, and
- defining the teacher-student relationship on a client-server basis.

### **INSTRUCTIONAL LEVEL-**

- The whole process of teaching and learning is cost-effect driven.
- Learning and teaching are required steps in the production of a product.
- drastic changes in the goals of learning and teaching.

### **Forms Of Privatization in The Education Sector**

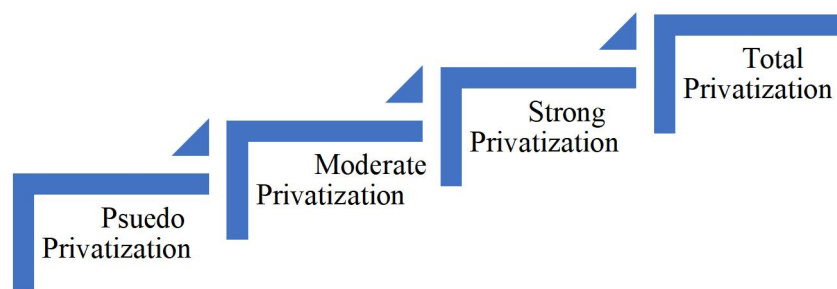


Figure II

### **Forms of Privatization in The Education Sector**

Tilak (1991) explained that privatization may take four forms.

- First, is the extreme form of privatization, implying 'total privatization' of higher education. This includes colleges and universities managed and funded by the private sector with little government intervention. These are also known as unaided private institutions. These institutions provide financial relief to the government in providing higher education, but at huge long-term economic and non-economic costs to society.
- The second form is that of 'strong privatization,' which implies that cost recovery is completely made from the users—students, their employers, or both. This kind of privatisation is not desirable and empirically feasible.
- The third type of privatisation is 'moderate privatization,' which implies public provision of higher education with a reasonable level of financing from non-governmental sources.

- Finally, the last form of privatisation is known as 'pseudo-privatization', which includes private aided institutions. These institutions can be created by private bodies but receive nearly all of their expenditure from governments. In other words, these institutions are privately managed but publicly funded. The governments meet almost all their recurrent expenses.

## Impact on Students

The traditional function of the dissemination of knowledge is under threat. From the concept of a 'knowledge society', the thrust has shifted to 'economized knowledge', making knowledge a valuable commodity subject to commercial transactions. Various aspects of the commercialised education system affect the students' psychological state as well as their general behaviour. A commodity economy, driven by market ideology, has promoted students' perception of higher education as a means to gain meaningful employment, attain professional growth, and social status. Universities, institutions, colleges, and schools are big businesses that are aggressively marketing themselves to become big brands. Furthermore, the higher education systems across the world are facing another challenge, and that is the quality of education. Admissions happen based on purchasing power rather than on the basis of merit. It is argued that the changes in higher education have created tensions between university leaders and academics. Those with decision-making responsibilities find it difficult to resolve the dilemmas and to maintain an optimum balance between academic integrity and long-term institutional sustenance in a market-driven society.

## Impact On Teachers' Psyche

The teacher's positions change the identities from autonomous professionals to service-oriented workers in a quasi-business environment. In such a situation, teachers let the principal manage everything, and they lose their freedom and authority.

- Teachers have to remain competitive and their employment is dependent on their marketing success. Teachers should **show off their work** to the outside world, so they must allocate extra time, money, and effort at the expense of teaching main activities and at the expense of suffering higher workloads.
- **The devaluation** of teachers' professional values is another consequence of marketization that has a negative effect on their identities.
- **Job dissatisfaction** is another issue that should be considered in this regard. Many researchers have studied the relationship between marketization of the profession and neoliberal emphasis on productivity and concluded that this trend has a negative effect on teachers' job satisfaction.
- **Overburden on Teachers**: The impact of commercialization on education is also related to the

overburden of teachers. For the commercial benefit, they put pressure on the teachers and give them the burden of work for the whole day. They were bound to do the activities provided by the authorities. They were busy taking the class, examination, remedial class, tutorial class, checking the examination copy, etc. But on the basis of their hard work the whole day, they don't get a sufficient amount of money.

- **Less pay to teachers:** The commercialization of education hampers the economic interests of teachers. In private institutions, the teachers are laden with overburden and work pressure. Teachers have to remain competitive and their employment is dependent on their marketing success. Teachers are compelled to show off their work to the outside world, so they must allocate extra time and money. But they are offered unattractive salaries, which demotivates them.

## **Challenges Of Marketization Of Education In Indian Context**

The marketization of higher education with the support of the government in the globalised era has added to the disparities in educational opportunities and educational attainment between the 'rich' and the 'poor'. It bears a potential threat to divide society into the 'rural elite' and the 'rural poor' and also the 'urban elite' and the 'urban poor'. As per the Indian Constitution, education is not meant for business. The role of universities is to compete with each other for academic prestige or distinction and not to market education as a commodity. With the dominance of the neo-liberal market ideology in higher education in India, achieving the objectives of expansion, inclusion, and excellence would be daunting. While the Eleventh Five Year Plan (2007-2012) stated its three major objectives of achieving expansion, inclusion, and excellence in the higher education system of India, the Twelfth Five Year Plan (2012-2017) envisaged its inclusive and qualitative expansion. However, the neoliberal market ideology in education would make the achievement of these objectives a daunting task. This is because 'higher education in India has been de facto commercialized' (Sharma, 2005, p.9). There seems to be a 'lack of political will' for the inaction of the government (Tilak, 2008, p.523). 'The matter, in short, is one of priorities, and the government lacks, by the fact itself, the political will to spread universal literacy through the curtailment of resources for higher education'. Successive Indian governments seem to have surrendered to the dictates of the World Bank and resorted to the promotion of commercialization through facilitating trade in higher education (Sharma, 2005, 2007). The Ambani Birla Report (2000), the National Knowledge Commission Report (2007), and the Yash Pal Committee Report on Renovation and Rejuvenation of Higher Education (2009) all upheld the neo-liberal agenda in higher education. The neo-liberal assault was further intensified by introducing a spate of bills in Parliament, such as The Foreign Educational Institutions (Regulation of Entry and Operations) Bill, 2010; The Educational Tribunals Bill, 2010; The Prohibition of Unfair Practices in Technical Educational Institutions, Medical Educational Institutions, and Universities Bill, 2010; and The National Accreditation Regulatory Authority for Higher Educational



Institutions Bill, 2010. These bills were outrightly condemned on the grounds of promoting a pro-market and pro-corporate agenda, facilitating and legitimising profiteering from education through the promotion of Foreign Direct Investment (FDI) and Public-Private Partnership (PPP) in education (All India Forum for Right to Education, 2010). The Narayana Murthy Committee (2012), constituted by the Planning Commission of India, spelt out its recommendations for corporate sector participation in higher education. Whether the government would be successful in roping in socially-conscious corporate organisations that have a history of genuine philanthropy in higher education is still debatable (Mathews, in, Joshi and Dey, 2013). Recently, the NITI Aayog's 'Three Year Action Agenda 2017-18 to 2019-20' suggests Indian universities follow Singapore and China's models to transform into 'world-class universities'. The proposal of a three-tiered system of higher education governance calls for a reduction in government funding and a focus on providing more grants to promote innovations in science and technology in comparison to the humanities and social sciences (Kundu, 2018). The increase in student complaints about university teaching and services over recent years has been attributed in part to the growing customer culture in HE. It is speculated that because students feel more directly responsible for payment of fees, they have a greater say in how they are taught, how they are assessed, and the overall quality of the services they are entitled to on campus.

## **Conclusion**

Higher education, initially a government-supported service, has entered the marketplace. Universities are big businesses that are aggressively marketing themselves to turn into brands. Funding for higher education is transferring gradually from the government to the students. Market ethics as an ideological force in higher education policy has increased the participation rates, but the equity in educational opportunities has come under threat. Another challenge that higher education systems across the world face is that of quality education. Market ideology has had a negative influence on the perception and attitude of the youth to such an extent that success in life is measured in terms of monetary success and education has diminished in importance. The growing marketization and commercialization has led to a decline in demand for liberal education. This business behaviour in higher education has created the problem of inequality of educational opportunities, especially for the socio-economically disadvantaged. It is important, both economically and on equity grounds, to increase the number of government-funded universities as opposed to private higher education institutions that provide education of debatable quality.

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# CHAPTER XI

## VIRTUAL LEARNING ENVIRONMENT - CONCEPT, ELEMENTS, POPULAR VIRTUAL SYSTEMS AVAILABLE AND THEIR USAGE

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### **Introduction**

Many innovative instructors at institutions world-wide are discovering the potential of the online environment to deliver instruction of the highest quality to people who would otherwise have limited access to higher education. This is an exciting and challenging time in education. Online education is bringing collaborative learning to the forefront and is affecting the way traditional courses are taught as well. Simply defined, online education refers to courses offered via the Internet. The minimum requirement for students to participate in an online course is access to a computer, the Internet, and motivation to succeed in a non-traditional classroom. Online courses provide an excellent method of course delivery unbound by time or location, allowing for accessibility to instruction at anytime from anywhere. Adult learners in particular find the online environment a convenient way to fit education into their busy lives. The ability to access a course from a home computer via the Internet, 24 hours a day, seven days a week is a tremendous incentive for this group to reach their academic and career goals.

Virtual Learning is usually associated with online courses or online environments, but it has much broader dimensions. In this article we will discuss its definition, characteristics, and benefits. We have also made for you a list of the most common forms of virtual learning, which describe the different aspects of learning and teaching process.

### **Virtual Learning – Meaning**

Virtual learning is a learning experience that is enhanced through utilizing computers and/or the internet both outside and inside the facilities of the educational organization. The instruction most commonly takes place in an online environment. The teaching activities are carried out online whereby the teacher and learners are physically separated (in terms of place, time, or both).

We can define virtual learning as distance learning conducted in a virtual learning environment with electronic study content designed for self-paced (asynchronous) or live web-conferencing (synchronous) online teaching and tutoring.

## **Virtual Learning – Educational Theories**

The quality of online education depends on the proper use of digital technologies in accordance with modern educational theories:

### **Behaviourism**

Behaviourism examines how students behave while learning. It focuses on how learners respond to certain stimuli. When the teacher repeats the stimuli, they can observe, control, and modify the learner's individual behavior. Learners do what they are instructed to do and are only prepared to reproduce basic facts and automatically perform tasks. Behaviorism does not examine the mind or cognitive processes.

In virtual learning behaviorism can be applied through step-by-step video tutorials, game-based activities, regular and constructive feedback, quizzes, gamification, etc.

### **Cognitivism**

Cognitivism focuses on the role of the mind and cognitive processes in learning. It explains how the brain is functioning and the levels of cognitive development that form the foundation of learning. Studies of cognitivism help educators understand how people learn and how to teach more effectively.

In virtual learning cognitivism can be applied through customizable learning environments, adaptive and personalized learning applications, AI, learning analytics, etc. It is important to provide content that is tailored to your learners' cognitive abilities, such as text, images, multimedia, etc., in which the learners can choose how lessons are presented.

### **Social Constructivism**

Teaching and learning are explained as complex interactive social phenomena that take place between teachers and students. Learning activities focus on experience sharing, teamwork, and collaborative learning. Social Constructivism finds perfect application in group discussions, brainstorming, problem-based learning, and small group activities. A great environment for these types of activities is the virtual classroom for live online teaching with interactive tools like collaborative web-conferencing, an online whiteboard, breakout rooms, screen sharing, etc.

## **Virtual Learning – Basic Characteristics And Benefits**

- Remote access to an unlimited array of educational services (topics and tutors) offered worldwide
- Individualized learning process that takes into consideration the personal level of competence, individual needs, and different learning styles
- Safe and secure learning environment
- Flexible learning in terms of time, location, and pace
- Cost-effectiveness, time-effective, easily scalable... and much more

## **Virtual Learning – A List Of Related Terms**

Virtual learning has many forms and related terms. These seem very similar but represent different aspects of learning and teaching and can help us understand the essence of 'virtual learning.' Here are the most commonly used ones:

### **E-learning**

E-learning in its broadest sense refers to: Using electronic technologies for learning and teaching. The learning activities take place either entirely or partially online. They can be conducted by means of electronic media without the use of the Internet.

### **Web-Based Learning**

Web-based learning refers to the use of a web browser for learning.

### **Online Learning**

Online learning is associated with the provision of electronic content available on a computer/mobile device. It might involve the use of the internet, but the use of a web browser is optional. Online learning can be done through programs or apps installed on your personal device, which can also be used offline.

### **Distance Learning**

Distance learning does not have to use electronic and web-based technologies. It means learning from a distance; in other words, the participants are physically separated.

## **Distance Learning Is Related To -**

Providing instruction to a person who is learning in a place and at a time different from that of the teachers and the other learners.

Nowadays, with the development of digital technologies, distance learning is increasingly associated with online learning. The use of virtual classrooms for live online teaching brings distance learning closer to the traditional form of learning by reproducing its main characteristics in the online environment.

## **Blended Learning**

This type of learning combines virtual and traditional forms of teaching. The learning content should be digitalized and made available online. Thus, learners are able to control the learning process in terms of time, place, tempo, and method of learning.

## **Conclusion**

Virtual learning combines all of the above-mentioned terms. It can overcome many drawbacks of the physical environment such as time, facilities, location, etc. Online environments allow teachers to work with larger numbers of students and optimize their routine tasks. Virtual learning also brings new pedagogical techniques into the traditional forms of education and makes learning more personalized and convenient.

## **A VLE May Include Some Or All Of The Following Elements -**

### **The course syllabus**

- Administrative information about the course prerequisites, credits, registration, payments, physical sessions, and contact information for the instructor.
- A notice board for current information about the ongoing course.
- The basic content of some or all of the course; the complete course for distance learning applications, or some part of it, when used as a portion of a conventional course. This normally includes material such as copies of lecture in the form of text, audio, or video presentations, and the supporting visual presentations.
- Additional resources, either integrated or as links to outside resources. This typically consists of supplementary reading, or innovative equivalents for it.
- Self-assessment quizzes or analogous devices, normally scored automatically.

- Formal assessment functions, such as examinations, essay submission, or presentation of projects. This now frequently includes components to support peer assessment.
- Support for communications, including e-mail, threaded discussions, chat rooms, Twitter and other media, sometimes with the instructor or an assistant acting as moderator. Additional elements include wikis, blogs, RSS and 3D virtual learning spaces.
- Links to outside sources – pathways to all other online learning spaces are linked via the VLE (Virtual Learning Environment).
- Management of access rights for instructors, their assistants, course support staff, and students.
- Documentation and statistics as required for institutional administration and quality control.
- Authoring tools for creating the necessary documents by the instructor, and, usually, submissions by the students.
- Provision for the necessary hyperlinks to create a unified presentation to the students.
- Interactive online whiteboard for live virtual classes.
- A VLE is normally not designed for a specific course or subject, but is capable of supporting multiple courses over the full range of the academic program, giving a consistent interface within the institution and—to some degree—with other institutions using the system. The virtual learning environment supports the worldwide exchange of information between a user and the learning institute he or she is currently enrolled in through digital mediums like e-mail, chat rooms, web 2.0 sites or a forum.[6]

## **The Components Of Successful Online Learning Environment**

Whether you are building an Online Learning framework for primary students, college students, or for professional development among your colleagues, the basic premise remain the same – the Online Learning Environment should enhance the learning potential of your candidates.

The SAMR model, created by Reuben Puentedura, is one example of how we can think about e-Learning design. Just as with the SAMR, on one level eLearning Environments can be used as a direct replacement of what you would do in a physical environment. On another level, it could be an augmentation of those same tasks with audio and pictures. To take it to another level, eLearning Environments can also provide opportunities to modify tasks for deeper learning with technology. Finally, successful eLearning Environments will also inspire learners to redefine their tasks in ways previously inconceivable. The following is an example of my own interpretation of using eLearning to support

reading responses.

Aside from the SAMR, other variables including age, curriculum, developmental level, learning needs and interests should be considered when adapting Online Learning Environment components for learners. For instance, when using a Learning Management system for primary students, it is most helpful if it is more visual based with lots of icons. Educators should also focus on fewer key features when working with younger learners. Often, it is very difficult for primary students to navigate and understand because it requires abstract thought. As learners progress and develop, more features can be added depending upon learning needs.

By contrast, online learning courses for higher education tend to be very textual based. We assume that this works best for adults, but the truth is that visualization is a powerful tool for comprehension, and it would be a mistake to assume that our older learners do not need visuals to support learning.

## **Six Important Components Of A Successful Online Learning Environment:**

### **Curation And Addition Of Your Own Resources**

Educators spend a lot of time reading, researching, and getting involved with other educators in online Professional Learning Networks. This paired with personal experiences can lead to the curation of important resources that support the learners and learning goals of the course.

### **Supplement Text-Heavy Environments With Other Types Of Resources**

Use interactive and visual resources to engage your learners and promote deeper levels of comprehension. Web 2.0 multimedia including live chats can help move beyond the structured discussion threads to real-time dialogue and sharing. It also promotes innovative ideas and the integration of past experiences and knowledge.

### **Encourage And Model Participation**

Just as in physical environments, participation in Online Learning Environments can be encouraged when the instructor explicitly sets clear expectations surrounding participation. Other strategies include modelling what effective participation looks like or sounds like, posting clear information in different sections to make it readily available, providing ongoing formative feedback through discussion posts, emails, and timely summative feedback. Further, asking effective questions and accepting of new ideas also helps candidates take risks to think critically and develop their ideas online.



## **Gradual Release Of Responsibility**

Modelling and connecting with all candidates on a regular basis is essential. However, as the course continues the hope is that you have gradually helped participants to build a culture that supports higher order thinking and supportive environments that can self-sustain themselves without direct intervention. These relationships become responsible for supporting participation and deeper learning within the course.

## **Summarizing**

This is a comprehension strategy that is essential to assessing success with eLearning. It is important to help candidates summarize key points of learning. It is also important for participants to see their key strategies and ideas shared and have them reinforced. This promotes deeper learning.

## **Assessment**

Feedback and assessment are ongoing. It is timely, it is constructive, and it models effective practices. It usually works best when there are no clear marks. One strategy is to keep a running spreadsheet of each participant to record important information. Keeping track of this information also provides you with windows into patterns and learning gaps that you can help learners fill.

Online Learning is an evolving craft that requires sound pedagogy. We are on a journey of discovery as we practice and hone in on and I am also on a journey of discovery and learning to find the best pedagogical practices for the learners that we work with. Differentiation is always key, in addition to being respectful of the different cultures, experiences, and ideas that each person brings to the Online Learning Environment.

## **The Social Presence For The Online Learning Environment Redesigned**

Online learning creates an alteration in the traditional teaching methods; however, the goals are the same, to promote learning. This significant change in the learning model for students highlights the need for educators to develop methods, strategies, and tools that will create an online learning environment that promotes and fosters collaboration and peer communication. The online learning environment, like a brick-and-mortar classroom, needs to provide a safe and comfortable community environment that increases student learning and communication.

## **Foundations Of Learning Theory For The Online Classroom**

The new frontier of online learning causes educators to review existing learning theories and their relevant application in the online learning environment. Behaviorist, cognitivist, and constructivist theories overlap in the design and approach of online learning. According to Ertmer and Newby (1993),

the three schools of thought are used as a taxonomy for learning. Behaviorist strategies can be used to teach the 'what' (facts); cognitive strategies can be used to teach the 'how' (processes and principles), and constructivist strategies can be used to teach the 'why' (higher-level thinking that promotes personal meaning and situated and contextual learning).

Knowing, blending and implementing the different strategies for each school of learning, behaviorist, cognitivist, and constructivist will assist the educator in creating a supportive online community environment. Garrison, Anderson, and Archer (2000) developed a theoretical model describing the components of an active online community: cognitive presence, teaching presence and social presence (Anderson 2008). Cognitive presence supports the development and growth of critical skills, the teacher presence is responsible for the structure and process of the educational experience in multiple areas.

It is the social presence that creates a climate where students feel safe to express and share ideas. Developing this social presence and interaction is necessary for providing connectedness in an online environment.

## **Creating Social Presence In An Online Classroom Increases Learning**

Strong feelings of a community increase student participation and willingness to take academic risks. Research conducted by Jung, Choi, Lim, and Leem (1999) analyzed the effects of three types of interaction of learning within the online environment: academic, collaborative and social interaction. The results of the study showed that the social interaction group outperformed the other groups, the collaborative interaction group expressed the highest level of satisfaction with their learning process, and the collaborative and social interaction groups participated more often in posting their opinions to the discussion board than did the academic interaction group.

By developing a supportive, interactive online learning community, students receive support and assistance needed, removing the sense of student isolation often associated with an online learning model. Just as in a physical classroom, a positive social presence affects student morale and learning.

## **Strategies For Developing Positive Social Presence In An Online Learning Environment**

Dickers, Whiteside, and Lewis (2012) proposed a social presence model for building community and connections online. This model identifies five critical elements for promoting learners to take an active role in their own and their peers' online learning experience. These elements are the affective association, community cohesion, interaction intensity, knowledge/experience, and instructor involvement. Five strategies are built from these foundational elements for implementing an active social presence in the online learning environment.

## **1. How To Promote Student Engagement And Interaction**

One way to increase student engagement and emotional interaction is through affective association. Online instructors need to find alternative methods of communication between all users to express different emotions that can be seen and communicated online. Through the use of different types of script, bold words, underlined words, and emoticons, a participant is able to provide textual voice and expression in their online communication. Encouraging users to develop personal avatars, such as Bitmoji, will allow for an animated approach in written expression through messaging applications. Additional techniques for creating affective association is through the use of online announcements that personalize and praise students. Providing all participants access to discussion boards and video conferencing tools, such as Zoom and Skype will also aid in the development of the emotional connection, promoting student engagement and interaction.

## **2. How To Develop Community Cohesion And Interaction**

Community cohesion is vital in an online learning environment and is similar to that of a traditional face-to-face classroom. Space and time are necessary for learners to engage and socialize with one another through virtual designed forums, such as collaborative virtual field trips. Virtual hangouts, and social community blogs. Providing multiple opportunities for learners to engage and interact informally encourages the development of an online learning community. To begin the development of student interaction and familiarity with one another teachers can create an introductory unit with peer interviews, biography postings, and other personal information. To assist with the implementation of the introductory unit, a shared virtual space is essential, such as Google Classroom or Blackboard for announcements, open forum discussions, and calendar of events. In addition to the shared space, digital tools such as FlipGrid can be used to promote question and response through a video format, creating an audio-video 'web' discussion. Providing different forums for students to collaborate and communicate encourages the development of community cohesion and interaction.

## **3. How To Develop Student Connection And Interaction**

Positive student-teacher relationships impact learning, creating more engagement, an increase of respect for self and others, as well as academic achievement. According to Thompson (1998), 'The most powerful weapon available to secondary teachers who want to foster a favorable learning climate is a positive relationship with our students' (p. 6). Interaction intensity is a strategy that teachers in traditional classrooms use to find avenues of personal connection and interaction with their students. The online learning environment provides a world wide web of access for teachers and students to connect and interact. Depending on the age group of your students there are various social environments e.g., Seesaw, Google Classroom, Edmodo, for engaging safely with students, providing a safe and dynamic

environment.

#### **4. How To Share Knowledge And Experience**

Shared knowledge and experience provide opportunities for teachers and learners to share additional resources and skills to communicate and demonstrate learning. O'Donnell, Dansereau, Hall, and Rocklin (1987) found students in structured dyads experienced less task-related anxiety than students who were working independently. By creating opportunities for peer tutoring and collaborative sharing through an online forum of discussions, hangouts, and blogs, a virtual support system is developed to provide access for sharing of knowledge and experience.

#### **5. How To Provide Instructor Interaction**

Instructor interaction and involvement refers to the extent the instructor invests in the students' learning. The partnership of teaching and learning requires regular communication and feedback, and the online learning environment provides multiple tools for doing this. Utilizing technical resources, such as video blogs, online chats, screencasts, texts, and emails instructors can use numerous ways to interact with their students. The online learning environment provides flexibility and time that a traditional classroom does not, the interaction between student and teacher within an online learning environment is not constrained by time or space, creating more diverse opportunities for feedback and instruction.

### **Intentional Design Of Social Presence Creates a Community Of Learning**

Online learning is not an Instructional Design for the future. It is here and now. The effectiveness of developing a supportive online learning environment requires a social presence and interactivity of all participants. Implementing the strategies shared will create an intentional design of social presence within an online learning environment. By developing a community of learning and sharing students are developing skills and connections needed for continual growth and cohesion among all participants. The rapid growth of online education presents an urgent need for active engagement on multiple levels: the blending of 20th with 21st-century learning theories and the transformation of teaching practices from a physical environment to a virtual environment.

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# CHAPTER XII

## ED-TECH - EDUCATIONAL TECHNOLOGY SUITABLE FOR ALL

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### **Abstract**

The term 'ed tech' refers to the use of technology in education and learning. It can scale standardised instruction, promote differentiated instruction, expand learning possibilities, and boost student engagement. Cohen and Ball (1999) contend that interactions between teachers and students around instructional resources improve learning. They developed a model that depicts instruction (and efforts to improve it) as a triangle, with each vertex representing students, teachers, and content. The need for a school system to invest in education technology is to diagnose its: (a) specific needs to improve student learning (e.g., raising the average level of achievement, closing gaps among low performers, and challenging high performers to develop higher-order skills); and (b) infrastructure to adopt technology-enabled solutions. Students will thrive when schools embrace technology to improve the work of teachers and the quality and amount of instructional content. Furthermore, Covid-19 has demonstrated that, in today's world, when pandemics and the effects of climate change are likely, schools cannot always deliver in-person teaching, highlighting the importance of investing in education technology. This study tries to find out the ways to incorporate technology into the current education system in an effective manner. Decision-makers should increase the use of pre-recorded lessons for quality training, facilitate differentiated instruction using computer-adaptive learning and live one-on-one tutoring, and boost student engagement through videos and games.

**Keywords:** Ed-Tech, Education System, Technology, Learning, School

## **Introduction**

'Ed tech' refers to the use of technology in teaching and learning. It has advantages over typical 'chalk-and-talk' classroom instruction. It can scale standardized instruction, promote differentiated instruction, enhance opportunities for learners, and increase student engagement (Banerjee, Cole, Duflo, and Linden, 2007; Muralidharan, Singh, and Ganimian, 2019). Recent advancements in artificial intelligence and machine learning, and the new Coronavirus that affected 1.5 billion pupils, have reinforced appeals for more technology in education (see, e.g., Marcus, 2020; Ovide, 2020; Weise, 2020). Despite the optimism, its results have been unsatisfactory (Bulman and Fairlie, 2016; Escueta, Nickow, Oreopoulos, and Quan, forthcoming; Tauson and Stannard, 2018). Evidence from randomized experiments suggests that equipping a school or a student with hardware (e.g., tablets, laptops, or desktop computers) has had little effect on student learning—and, in some cases, has distracted students from schoolwork (see, e.g., Barrera-Osorio and Linden, 2009; Beuermann, Cristia, Cruz-Aguayo, Cueto, and Malamud, 2015). Educational software that allows students to practise schoolwork has had minor success (see Huang et al., 2014; Lai et al., 2012; Mo et al., 2015). Education technology's potential is untapped. This study tries to understand the needs, infrastructure, and capacity of a school system.

## **Framework**

David K. Cohen and Deborah Loewenberg Ball, two notable US education scholars, noticed a disturbing pattern in school reform 20 years ago: Despite excellent intentions, many school-improvement attempts failed or didn't last. They stated that prior projects had paid insufficient attention to teaching and learning, and to guide future reform efforts, they proposed a basic yet intuitive framework to think about levers of improvement (see, e.g., Kane and Staiger, 2012). Cohen and Ball (1999) propose that teacher-student interactions around instructional resources increase learning. They devised a model that shows instruction (and efforts to enhance it) as a triangle in which each vertex represents learners, educators, and content (see Figure 1: The instructional core). The two-sided arrows linking the vertices highlight that it is the interactions among these three elements that result in learning, and that a change in one element impacts all others (e.g., better materials will help educators improve instruction and learners grasp the subject). 'Instructional core' is the center of all three aspects. The failed school-improvement efforts in the U.S. that motivated Cohen and Ball's framework are similar to ed-tech reforms in much of the developing world to date in their lack of clarity improving interactions between educators, learners, and educational material—or 'children's daily experiences in school' in pre-pandemic times. We argue that policymakers

and practitioners can learn from this approach to better learning through technology. We add parents as mediators between students, teachers, and material to Cohen and Ball's approach (especially during the pandemic).

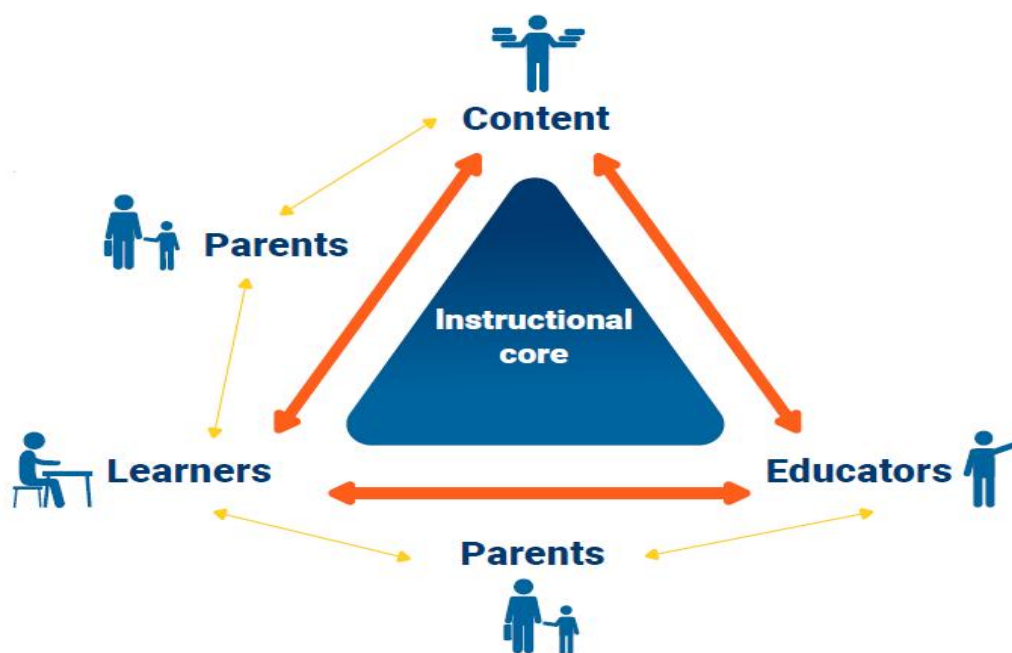


Figure 1

Source: Cohen and Ball (1999)

As shown in the figure above, ed-tech interventions can have a wide range of effects on the instructional core. They may increase the quality of the content learners' access (e.g., through self-paced or parentally supervised online videos) and the instructors who use them (e.g., through prerecorded or live classes). They may also alter how instructors acquire learning resources (for example, through repositories of lesson plans and activities) and interact with students (for example, directly through learning management systems or indirectly through text messages with their parents). However, just because technology is capable of doing something does not imply it should.

School systems in developing countries differ in many ways, including their size, the level and distribution of learners' skills, and the capacity of their public-sector bureaucracy to implement large-scale reforms and educators to deliver high-quality instruction (see, for example, Andrews, Pritchett, and Woolcock, 2017; Pritchett, 2013). As a result, each system is likely to have unique needs for ed-tech interventions, as well as unique infrastructure and capabilities to implement such interventions. This is why it is necessary for governments, interested in implementing ed-tech solutions, to start by assessing the initial conditions.



A useful first step for any school system in determining whether to invest in education technology is to diagnose its: (a) specific needs to improve student learning (e.g., raising the average level of achievement, bridging gaps among low performers, and challenging high performers to develop higher-order skills); and (b) infrastructure to adopt technology-enabled solutions (e.g., electricity connection, availability of space and outlets, computer stock, and so on).

## **Modifications Needed To Improve Student Performance**

1. Prerecorded classes- By sharing effective instructors' lessons, technology appears to be well-positioned to enhance its influence. The evidence on the effectiveness of prerecorded lessons is promising but not conclusive. Some projects that employed short instructional films to supplement normal instruction, along with other learning aids, improved student learning on independent tests.

1. Differential Instructions- Technology can improve educational outcomes by facilitating differentiated instruction. 'One-size-fits-all' instruction, in which a single teacher teaches to the middle (or top) of the achievement distribution, is inadequate (Banerjee and Duflo, 2011). The technology could benefit students by offering (a) 'computer-adaptive learning' (CAL) or (b) live one-on-one tutoring.
2. Tutorial videos. By developing new and more engaging methods of delivering material, technology has the ability to boost student effort and knowledge. Video tutorials designed for self-paced learning—as opposed to videos for whole-class instruction, which we discuss above under the category of 'prerecorded lessons'—can increase student effort in a variety of ways, including allowing students to focus on topics where they need more assistance, allowing them to correct errors and misconceptions on their own, and making the material appealing through visual aids. They can improve comprehension by breaking the subject down into smaller chunks.
3. Game and Gamification-Technology can also boost student engagement by presenting or motivating students to play and compete with others, a technique called as 'gamification.' Both techniques can boost student motivation and effort by providing engaging opportunities for practice and using friends as commitment devices.

## **Interventions Required To Match The Needs**

1. Assess how schools, teachers, and students use technology. Use the results of a quick in-school survey to make decisions about technology use. A limitation can be the regulations which hold school officials accountable for damaged or lost electronics. Other factors can be lack of energy, Internet, or charging outlets in classrooms. Understanding infrastructure and regulatory limits is a first step in using education technology.

2. Consider how the use of technology may impact interactions between students, teachers, and content. When technology is used to access to superior content, differentiated instruction, practice opportunities, or student engagement, it has the potential to accelerate student learning.

3. Once decision-makers understand how education technology can help improve student learning in a given context, it is essential to establish clear objectives and targets, as well as methods to regularly review progress and make timely corrections.

4. Teachers, school administrators, parents, and students must be kept informed. Technology in classrooms can confuse parents and older educators, or be a distraction. Explaining what technology is and how to utilize it effectively can increase programme success. If instructors believe technology will replace them, they will be resistant; if it would help them, they will be open.

## **Conclusion**

Covid-19 lockdown has forced school officials, teachers, parents, and students to adopt the new technology. In poor areas around the world, with insufficient availability of electricity and connectivity, many children are not able to learn. This study aims to help decision-makers understand education technology's potential. Evidence suggests students don't learn more from computers than from textbooks. Distributing hardware alone won't increase student learning. The decision-makers should scale up quality training using prerecorded lessons and facilitate differentiated instruction with computer-adaptive learning with live one-on-one tutoring and expand increasing student engagement with videos and games.

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# CHAPTER XIII

## BRAIN DRAIN WITH SPECIAL REFERENCE TO PUNJAB

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### **Introduction**

Brain Drain is the process in which highly educated persons move/migrate from one country to another. There are several reasons for the occurrence of brain drain like better pay, living conditions or better employment opportunities as compared to India specially in Punjab. Main reason in Punjab for the Brain Drain is the Unemployment, less Basic pay, lack of promotional opportunities, Corruption, educational system, poor working conditions etc. Punjab has always faced the issue of Brain Drain. Youth of the Punjab is not ready to work in Punjab due to the fascination of abroad. Current unemployment rate in Punjab is 7.44 % (Indian Times).

The large amount of brain drain creates issues of socio-economic environment and employment opportunities for the youth of the state. It also creates crisis in agricultural sector and also many firms that were operating in Punjab have shifted to our neighbouring states due skilled labour forces. Massive number of youngsters is from Middle families and they look for the better opportunities in other countries because the System of Punjab is lacking in providing them employment opportunities. There is also lack of healthcare facilities and Doctors in Punjab do not enjoy as much as facilities as compared to abroad.

**Keywords:** Abroad, brain drain, migration, facilities, opportunities, provides.

### **Objectives Of The Study**

- To give suggestive measures to help government to retain youth in Punjab
- To highlight few better start-up ideas and employment opportunities

## Reasons Of The Brain Drain In Punjab

- Irregular Wage Rate System in Punjab.
- Lack of Employment opportunities as compared to the calibre of youth.
- Hesitate to work at lower level due to the pressure of less relatives, less pay and deteriorate Status Symbol.
- Due to peer pressure as they think if they are going to abroad so why not I am.
- For availing better/higher educational facilities.
- For Better Research facilities.
- For availing greater life securities.
- For Modern Education System and better chance of development.
- Lack of health care facilities as we seen the Covid- 19.
- Poor quality of living.
- Decreasing the faith of Indian Public in their government and judicial laws.
- Due to higher currency Rates as compared to Punjab. People prefer to go abroad to provide better life style to their families in India (They want to earn money overnight).
- Less Corrupted practices in abroad.
- Mentality of students are changing now a day towards a trend i.e going to abroad and settle over there.
- Equality is given to every type of occupation.
- Less criminal activities.
- Better facilities in old age.
- Maximum support of government.
- No discrimination policy.
- Freedom in all type of work (respect for every work).

## **Rates Of Brain Drain In Punjab**

- In Punjab we saw 854 students per one Lakh people going abroad (The Indian Express).
- (Times of India) Punjab stands at eight number in the country when it comes to migration /Brain Drain.

Number of brain drain increases Day by Day. In Punjab Brain Drain shows an upward trend. 4.78 Lakh people from Punjab left the country and the reason is unemployment.

-(As per Punjab Polls) The Ministry of external affair shows the immigration status report i.e. 7.2 Lakh flew out of Punjab between January 2016 and February 2021.

-2.4 Lakh were student visa holders, 4.78 Lakh were employment visa holder.

- In 2016, Number of student visa holders from Punjab was 36000 and it went up to 13,000 and 73000 in 2019.

-In 2020 (the Covid-19) around 38000 youth from Punjab managed to fly abroad.

-In 2022 also the number of migrants increased and the trend for going abroad goes upward.

## **Suggestive Measures Help The Government Of Punjab In Retaining The Youth:**

- Government should take steps to promote 'the stability in the education system' of the country so as to be reduces the drive of migration to abroad.
- Establish better health care practices so that public avail better medical facilities in Punjab and to don't rush for moving to avail Health care services.
- Establish better labour laws in Punjab so that do not they protest for their rights and don't sacrifice their lives.
- Government should impart practical aspects relating to job during their graduation years so that the youth of Punjab would be in at much better position to find out good jobs.
- Initiative programs must be introduced to dispel the stereotype thinking for going and settled in abroad.
- Stabilize the problems related to education.
- Build up trust and faith of public by providing better opportunities.



- Make judicial system powerful.
- Punjab government should make a decreased in granting the licences to the ilets centre which are the major cause of the trend for going abroad.
- Give Equalities to all types of Jobs.
- Remove disparities between upper and lower-level jobs.
- Encourage better start up programs.
- Promote employment opportunities.
- Provide stage for start-ups.
- Provide innovation.
- Better IT services.
- Subsidies for new firms.
- Social equality.
- Promote export.
- Provide training to students for skilled jobs.
- Aware about better alternatives for employment.
- Strong educational system.
- Enhance the quality of education system in Punjab.
- Fair in providing jobs, remove quota system.
- Provide equal opportunities to all.
- Provide basic scale of payment.
- Better and effective laws and rules.

## **Conclusion**

While studying the youth migration from Punjab the study identified that brain drain is the biggest problem if it is not reduced then the development does not occur. Major challenges face by the

government if precautions are not taken. Here we find major reasons of brain drain are lack of employment opportunities, educational facilities, promotional opportunities, poor working conditions. If these were provided in Punjab then there is possibility brain drain is reduced.

# CHAPTER XIV

## DIGITALIZATION OF EDUCATION AND ITS IMPACT ON TEACHING - LEARNING PRACTICES

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### **Abstract**

The progress and prosperity of any nation depend upon the development of the human resources of that country. Education has played an eloquent role in Nation Building. Information and Communication Technology has also played a very significant role in the Transforming Education system. Traditionally chalk and duster method was used for teaching, but now due to technological advancement, it was supplemented with Smartboards, PowerPoint presentations, video projectors, etc. The use of audiovisual aids along with the theoretical concept creates a long-lasting effect on the mind of learners. Digitalized Era has enabled the students who are living in remote and backward areas, to get themselves educated by top tutors. The advancement of technology has brought a shift from print learning material to digital learning material. Many ICT initiatives like SWAYAM (Audio-Video e-content), National Digital Library (Digital Content), e-Yantra (Accelerated hands-on learning), SAMARTH (E-Governance), VIDWAN (Track Your progress), etc. have been highlighted by MHRD to promote Technology-enabled learning. Despite all these, there are some factors which create hindrance in the implementation of these initiatives like the digital divide continuing to prevail among the learners; despite taking benefit from these online sources learner is engaged in internet surfing; instructor themselves do not use any kind of audio-visual aids in their teaching. The purpose of writing this research paper is to highlight the impact of digitalization on education and also to bring into the spotlight various initiatives through which digitalization is made possible. In the earlier phase of time focus was on Learning but with the change in Technology this focus shifted from LEARNING to SMART LEARNING which can be possible only through ICT.

**Keywords:** Digitalization, Education, Initiatives, Impact, ICT

## **Introduction**

A Teacher is one of the most important components that shape's the country future. Earlier, it was the teachers who exercise his/her full control over the material whatever is being learnt by the learner. But over time, SELF PACED LEARNING concept is being introduced. The advancement of Technology has not only influenced automobiles, agriculture, aviation and the banking sector; even the education sector has not remained outside the boundary of Information and communication technology. ICT has provided a privilege to the learners, and to the employed youth to get themselves certified from overseas universities without getting out of their country. But that doesn't means, conventional learning is entirely being ignored. Despite the neglect, it is being harmonized by electronic ways of teaching and mobile learning. Digital technology has provided benefits to those people who can't go outside their homes, due to their household chores. Moreover, it also provides comfort to those professionals for whom it's not possible to attend regular classes in their busy schedules. Open and Distance learning (ODL) Universities have assisted these learners to get themselves educated, without coming to university premises.

## **Objectives**

The objective of this research paper is:

1. To highlight major initiatives through which Digitalization of education is being made in India.
2. To study the impact of digitalization on Education.

## **Review Of Literature**

Kaur, Harpreet (2019) in their research paper titled 'Digitalization of Higher Education' stated that digitalization has not replaced teachers, but suggested for use of a flexible learning environment in an organisation. Rastogi, Himanshu (2019) 'Digitalization of Education in India- an Analysis' asserted that digitalization of education is a must in the present scenario, but an effort must be made to reduce the negative impact of digitalization. Gond, Rampareesh and Gupta, Rashi (2017) in their research paper 'A study on Digital Education in India' stated that educational infrastructure is required for the development of digital education in the country.

## **Initiatives For Boosting Digitalization Of Education In India**

The Ministry of Human Resource Development has taken too many initiatives to promote Digitalization in Education and its related sector. National Digital Library India, e-Shodh Sindhu, SWAYAM PRABHA web portal, Virtual labs, etc. all these schemes are being launched by the Ministry

of Human Resource Development to encourage the use of ICT in education. Following discussed are the major initiatives to encourage the use of digital devices in education and its related sectors:

**1. SWAYAM PRABHA** is a group of free 32 DTH channels for delivering quality education to learners. Through this web-portal e-content is being made available to the learners round the clock with the help of GSAT-15 Satellite. E-content is being delivered by UGC, IITs, NPTEL, IGNOU, etc. related to various disciplines such as arts, science, commerce, technology, humanities and law, etc.

**2. NDL (National Digital Library of India)** project was set up by MHRD under its campaign National Mission on Education through ICT. A Digital library has been opened for facilitating learners who are preparing for competitive exams and it also provides help to research scholars. Through this digital library, education content is being made accessible to all the learners ranging from primary class to post-graduation level. Every learner need's to get themselves registered with this digital library if they want to make optimum use of it.

**3. IGNOU (Indira Gandhi National Open University)** has tremendously used ICT for imparting education material. To raise the gross enrollment ratio of students in the higher education system, many innovative strategies have been drawn up by them like imparting education in low-literacy districts and communities; offering short-term courses for professionals, educators, technologists, etc. for improving their knowledge and skills. This university has utilized self – Instructional printed material, teleconferencing, FM Radio and Television for disseminating instructions to the learners.

**4.** Under the national mission of education through ICT, numerous attempts have been made for imparting knowledge and skills to PG/UG students with the help of **VTU (Virtual Technical University)**.

**5. Lekhika** was launched in 2007 to spread computer literacy among those who aren't familiar with the English language.

**6. Brihaspati** an open-source e-learning platform has been developed by IIT-Kanpur.

**7. E-PG Pathshala** is also one of the initiatives taken by MHRD under the National Mission on Education through ICT. Through this web portal content can be made available in e-textbooks, online and offline courses. e-Adhyayan provides books for UG and PG students and e-pathya is software that provides help to PG students.

There are so many **social media tools, mobile applications** which are available on the Internet, like Edmodo, Stunited, Ted-Ed, Edu Blog, etc. through which students and Faculty can learn any material required by them. **Edmodo** is one of the tools that establish a virtual relationship between teacher, students and their parents. Through this media, the teacher can distribute assignments and conduct quizzes to check how much learning material they have a grasp on. **Ted-Ed** disseminates online content

provided to them by various instructors and teachers in the form of short videos. Ted-Ed helps the teachers to share their ideas among students in a very interesting manner. **Google Classroom** offers free web services for schools. Earlier Google Classroom binds Google Drive, Google Docs, Sheets and Slides, and Gmail in it. Later on, Google Calendar was introduced in it. **Edu Blog** as the name depicts blogs related to education created. Under these blogs, the content material is shared by students and teachers.

Under these applications, course content is made available by the tutor Free of cost, or sometimes they charge a few fees for providing their valuable services. Moreover, they also conduct tests and quiz competitions based on which we decide how much we have a grasp or how much we will have to learn more to increase our knowledge. Despite all these, online collaborative classes are also there in which teachers and students interact with each other through online media.

As time goes on, we need to keep ourselves updated with the latest techniques to survive in this competitive era. Likewise, earlier in teaching, the Blackboard method was preferable but the advancement in technology has supplemented the blackboard with a smart board. The digitalization of teaching practices has created a long-lasting effect on the learner. Anything which is learnt by the learner by applying the sense of hearing and sight will never be easily forgettable by the learners.

## **Impact Of Digitalization On Teaching-Learning Practices**

Following discussed are the points which states the Impact of Digitalization on Education:

- 1. Rapid Transmission of Information:** - Digitalization has enabled tutor to spread their knowledgeable information all over the world within a short period by using social media platforms to the maximum possible extent.
- 2. Round-the-clock availability:** - Digitalized Era has enabled those learners for whom it's not possible to attend the regular lectures delivered at institutions, to access the material related to their respective fields at any time.
- 3. Interactivity** - Through digital education learners can relate to the content more effectively, go forward and backwards in the content and start from any point, depending upon their prior knowledge and experience.
- 4. Supports learning aids:** - Earlier, only the chalk and duster method was used by teacher, but nowadays, audio-visual aids have helped the tutor's to explain their concepts in a better way.
- 5. Long-lasting effect:** - Anything which is learnt by learner by using audio-visual aids will create a long-lasting effect, and will never be easily forgettable by learners.

**6. Enhancement of knowledge:** - Digitalization has enabled the learner to access e-textbooks, e-contents, etc. whenever required by them. All these contents are being made available for enhancing knowledge and skills.

**7. Social disconnect:** - The Virtual world has disconnected the learners from the real world.

**8. Misuse of technology:** - Instead of using technology fruitfully, students start misusing the technology and indulge in different practices like internet surfing, rather than developing their skills they start copying information from the internet. etc.

**9. Reduced face-to-face Interaction:** - Digitalization of education has reduced face-to-face interaction between learner and instructor.

**10. Resistance to change:** - Sometimes the teacher will not like to use information technology in their teaching practices if they are not using it, so how can you expect from them that they will encourage another person or their students to adopt such practices?

**11. Profit motive:** - Earlier education was related to social benefit, but nowadays people have started using it to make a profit.

**12. Health issues:** - No doubt digitalization of education has provided numerous benefits, despite of that it also leads to many health issues like vision problems, neck strain, hearing loss, etc.

**13. Imitation issue:** - learners start emulating information from the internet, rather than developing new skills of their own.

**14. Digital Divide:** - Technology has created a digital –divide among the students. It will reap benefits for those who are more familiar with Information technology than those who aren't computer savvy.

**15. Transactional distance Increases:** - Due to information technology, the bond between learner and instructor is affected. The transactional distance increases because the learner is not physically present where the lecture is being delivered by the teacher.

## **Recommendations**

To make the Digitalization of education Scheme a success, effective steps need to be taken. Firstly, we need to remove this misconception that digitalized education has reduced the relevance of teachers. A Teacher is considered to be a valuable pillar, which not only inspires student but also motivate them to exploit digital resources. Secondly, the teachers need to use these digital devices while teaching, only then they will encourage their students to use ICT. Last but not the least, to create this 'DIGITALIZATION OF EDUCATION' scheme's success, Telecommunication service

providers need to keep their Internet cost low, only then the large mass will make optimum use of it.

## Conclusion

From the above-discussed paper, it is concluded that education has played a vital role in nation-building. Digitalized education has provided benefits to those for whom it's not possible to get themselves educated. Despite of many benefits, it is covered by many negative aspects which can't be ignored. In the present era, instead of using alone digitalized education, a combination of the traditional approach of education and the modern approach of education needs to be used which is known as blended learning.

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# CHAPTER XV

## EDUCATION AS AN INSTRUMENT OF SOCIAL CHANGE

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### **Abstract**

Education has always a vital role in building as well as moulding the character of an individual. The rapid industrialization as well coupled with the increasing urbanization has led to the need of the change in the scenarios in order to enable one to cope with the changes. Mechanization has left no sector untouched and comes to play a crucial role in the sector of education as well. The root cause of the social and cultural changes which lie within a society take place due to education. Since ages education has been playing a major role in the socialization and in the present era mainly for the youngsters in order to enable them to reach the society. Education can go a long way to bring about a change in the attitude of people and thus leading to phenomenal changes in each and every aspect of life. A major transformation in the thought process of individual thinking is brought about by way of social change which has left its impact on global economy as well. The important role of education as an instrument or an agent of social change takes place in the true sense when human beings need a change. The present paper seeks to study the role of education as being an instrument of social change while focussing its attention on the various dimensions of education and its key role in certain areas.

**Keywords:** Education, Social Change, Mechanization, Globalization

### **Introduction**

The role of education in empowering the individuals cannot be ignored. Education has been effective enough to pave the way for the development of science and technology (Patil.P.,2012). Education is a major instrument in bringing about the social revolution for all, at all levels and has been accepted as one of the major agencies for socialization as social agents. The exact relationship between education and social change is that it comes in a dual form of education being the instrument in some cases whereas it being the end product in some. The historical experience of the advanced countries has shown that education is a pre-condition for any kind of social revolution.

Education has a threefold function to play when it is viewed from sociological point of view. Firstly, it helps in the preservation of work, secondly it helps in the transmission of the desirable cultural elements in the new generation and thirdly it also helps in the dissemination of new knowledge and experience for the new invention. All the three activities of education play a vital role for bringing about the social change, firstly in terms of preservation of social heritage, then in terms of the transmission of the desirable culture as well as the disseminations of new knowledge.

**Education:** Education has been described at different times by different philosophers and educators from time to time. Education includes not the comprehensive growth of a child but it also holds the capacity of being a genuine weapon of social change. Many social, economic and political reasons lead to the necessity for human beings responding to the changes in maintaining social and economic relationships. Education is thus a complex but purposeful operation. It has a very distinct history and was started by social conflicts in the ancient times.

**Social Change:** The change in the structural and functional systems in a social system is defined as the social change. Cultural change may also be defined as the social change. Cultural change can be grouped in two categories as material as well as non-material. The material aspects of culture deal with the utility while the non-material concepts consist of habits, beliefs, attitudes as well as values. It may also be defined as a process by which the students develop an art of learning critically the appropriate knowledge which exists outside their immediate experience so as to broaden their level of understanding of themselves.

**Education and Social Change:** The role of education as an agent of social change as well as social development has been recognized broadly and is considered as a vector of social change especially in this time of social change. Social changes keep on taking place in response to the different types of changes that keep on taking place in the social and economic environment. Every nation of the world has its own form of system of education which not only per world are equipped with some form of the educational system though these systems differ significantly. The increasing socialization of young people and the maintaining of social order is considered as one of the main functions of education.

The ideal role played by education is the preparation of the way for the development of science and technology leading to certain unique changes in lives of everybody. Our society today has undergone a vast transformation where a number of new ideas have come into form and social changes have come into being both by individual as well as collective actions. The views of various educationasists and philosphers with respect to education as a process of development are different.

The relevance of education does not lie only in present times but also for the future. The main functions of education in the sphere of social change include the creation of desire for change which

includes the attitude of people towards modern ways of life, adoption of social change and many others. The first major role of education is the preservation of all cultural values as well as beliefs as well as plays a vital role in the separation of negative cultural value and hence leads to the transmission of beliefs which are beneficial to mankind.

A vast form of transformation has taken place in the society throughout its history. A number of new ideas have come into being Society has undergone vast transformation throughout its history. The changes in the society are inevitable due to a large number of cultures, languages and religions found throughout the society. Education thus must be planned in such a manner which takes into consideration the needs and ambitions of people.

### **Role Of Education In Bringing About Change -**

- **Change in the attitude of people:** The major means by which education effects social change is mind which is the creator of new and explains the old as well as the present. Education helps in providing assistance to people for altering the attitude of people who can fight traditional beliefs etc.
- **Creation of a desire for change:** Education not only provides assistance in altering the attitude of people but also creates a desire among people by providing them with right knowledge and sharpening of their skills. It also helps in the identification of gaps and having required knowledge and skills which are a major prerequisite for the achievement of progress in society.
- **Promotion of capacity for welcoming and adopting social change:** Education helps in the creation and adoption of social change by way of bringing utilities to people. Education helps in the promotion of capacity of people to accept and adopt the change in a much meaningful way. **Thus, the building up of capacities among the individuals is one of the main functions of education towards the building up of social change.**
- **Developing the Resistance to change:** Education provides assistance to people which helps them in overcoming their resistance for social change which helps in the progress of the society. The provision of the right type of knowledge and information goes a long way for encountering different types of change.
- **Helps in the emergence of New Social Changes:** Education provides the ability to remove the social evils such as child marriage, superstitions, blind beliefs etc. This enables to create a sort of public opinion which is a basic necessity for social change.

- **Role of Leadership in Social Change:** Education has the potential to take leadership to a high developing level which helps in facing several difficulties and also prepares people to become social reformers and nation builders.
- **Economic Development:** Education provides a great way for the development of a nation. In terms of social, economic, cultural, scientific and social development of human resources which acts as a key to economic development. Thus, the all-round development of a nation depends to a large extent on the level of education of a country. Education has been given the acceptance of being one of the major agencies of socialization and teachers as well as the educational institutions are the major socializing agents. The social reformers emphasized the values and wanted to teach the liberal philosophy by way of education changing the society.

Education has to its credit of being accepted as one of the major agencies for the purpose of socialisation. The major function of education in a static society is to transmit cultural heritage to the coming generations.

## Conclusion

Education has a great influence by way of providing a change in thinking, culture and interaction. The major contribution which can be made by education to a society is not only enabling a rise in the standard of living of people but also to make them better citizens change the outlook of people and provides an approach towards the social and economic problems. Education is thus a significant instrument for bringing about social change as it helps sharpen the skills of children. Education not only preserves culture and traditions but also helps in its efficient transfer to citizens of the country. Besides, it inculcates the habit of being motivated among the children and propagates such ideas among the society which are helpful for it.

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# CHAPTER XVI

## M-LEARNING - A TOOL FOR TRANSFORMING EDUCATION

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### **Abstract**

Mobile phones have revolutionized the way we work, socialize, learn and play. The scope of Smartphones is multifaceted as we can use them for interactions, entertainment as well as for learning. Mobile Learning or M-learning can be fruitfully applied in certain sectors to enhance the development of those sectors like education, Business and profession, rural development etc. But the mobile phone usage in education has always been doubted by parents and teachers as it can prove to be a destructive for students'future if used inappropriately. Usually, educational institutions have restrictive policies in the campuses to restrict phone usage. However, a question has been raised on account of privacy violation and abuse of power by the learners. In this paper, we have assessed the possibilities and challenges of implementing mobile learning in the present day of digital technology among the students.

**Key Words:** M-learning, Digital technology, Education, Security, Mobile Phone.

### **Introduction**

M-learning i.e. mobile learning is the application of mobile devices like smart phones, tablets, PCs, PDA's, mobile phones etc. through social interactions, applications to support the learning process. Mobile learning is of paramount importance in a country like India where the number of mobile users is constantly on rise. Gone are the times when people used to hear about the dangers of social networking.

With the advent of mobile technology, the complete scenario of Higher Education has changed. Number of mobile phone users has increased from 524.9 million in 2013 to 813.2 million in 2019 (Statista 2020). These figures speak volumes about the possibility that these devices can offer. No doubt M-learning has brought about a paradigm shift in conventional learning with added advantage of instant sharing and easy transfer of learning content. Digital devices can make learning cheaper as well with cost of reduction for setting up conventional classrooms where educators and learners meet. The mobile learning can be beneficially used in rural areas as well as in areas where education facilities are not much developed.

## **Objectives**

The main objectives of the paper are:

1. To discuss the scope and content of M-learning
2. To highlight various facets of M-learning
3. To discuss the challenges related to M-learning.
4. To give tips to overcome challenges related to M-learning

## **Scope Of M-learning**

M-learning can be fruitfully applied in certain sectors to enhance the development in those sectors. Due to its easy accessibility M-learning can be used in the following areas:

### **In Education**

M-learning can be used in schools as well as in higher education sector. At school level M-learning can be used to enhance the subject's specific knowledge like languages or that related to science or Social Sciences. Moreover M-learning can help in developing the logics of the students through use of various games etc. Where as in higher education M-learning help in development of basics of various subjects. For example, Finance students can know the basics of share market through the use of M-learning and many more examples to go.

### **In Business And Profession**

M-learning can be helpful in enhancing the knowledge base of persons engaged in business and profession. They can update their knowledge about the latest changes or updates in their concern areas. Latest mobile applications can be used to know the changes in laws and taxes which will be helpful for them in future. Personal related to business can be given training through M-learning without wasting any time on off the job trainings.

## **In Rural Development**

M-learning can be very helpful in rural development or areas where education facilities are not properly developed. With the use of mobile, people in rural areas can have easy access to latest changes and development in the related fields. Moreover, mobiles allow the users to appear for online test also. So, M-learning in one way or another will enhance and development of such areas.

## **Content Of M-Learning**

M-learning is of course learning through mobile apps. So, keeping in view the small and compatible size of devices it can be taken into consideration that the content which is provided through such devices should be precise and limited so that it can be easily grasped by the users. The content can be in the form of short texts, audios, videos, ppts, animations etc which should consist of related topics. Further the evaluation of the course content can be done in the form of MCQ test, quiz's, online time bound tests etc.

## **Facets Of M-Learning**

### **Social Learning**

Students are more responsive to a learning driven environment. Smart devices have an advantage of creating effective collaboration specifically between a group of people. Various platforms like social sites and blogs, discussion forums etc offer easy information sharing and exchange of ideas. Mobile devices have an advantage over other smart devices because of ease of carrying and accessibility. E-Books can also be a great learning opportunity.

### **Contextual Learning**

Mobile technology offers a wide range of features that can be utilised to improve student performance through contextual learning. Interactive learning through games is gaining a lot of acceptance because of being simple and cost-effective. Mostly students prefer playing than learning.

## **Enhancement Of Learning Through Better Retention**

Smart mobile phones have increased the learning capacity. Large amount of data can be assessed anywhere without any limitations. Students have the liberty of space and time that can increase their interest in the topic and thus resulting in higher retention. Higher learning retention is imperative to improve student performance.

### **Ease Of Usage**

Mobile learning has increased the scope of learning beyond the classroom. Learners can assess



quality content anywhere and anytime, beyond the limits of the classroom. Students and teachers can collaborate easily and develop new ideas with use of digital technology.

### **Increased Connectivity**

Asian countries along with India have a high mobile and internet user. There a large number of students who have the resources to buy smartphones, but not a laptop or a PC. 600 million people subscribe to mobile learning applications worldwide that speaks volumes about the connectivity it is offering.

### **On Demand Access**

With the use of mobile phones, we are drivers of our own experience and we can assess learning as and when we desire. Students want easy and instant access to learning content as well as application just like Amazon prime on Netflix, this has become a reality with the advent of mobile phones only. It's not just entertainment but learning also which is emerging with increased use of mobiles.

### **Mobile Swap**

There is a paradigm shift that has taken place in learning because of mobile phone. Various researches clearly suggest that in the coming times this shift towards mobile learning is going to continue and even with the greater force. In the words of YouTube global head of learning and family Malik Ducard, educational or instructional videos are the third most popular in the watched videos category. LinkedIn has also reported a similar growth. App Boss CEO, Tom Cheddadi also highlighted that students' feedback for mobile learning is overwhelmingly positive.

### **Changed Attitude**

A number of benefits have resulted from the increased use of mobile technology. Mobile learning is helping students in completing their school work assignments, developing their problem-solving skills and critical thinking. Parents have also been reporting positive changes in children attitude towards learning. With advantages like speed, convenience, retention and instant access, the number of learners has increased to a large extent offering existing new opportunities to learners. mobile usage has broadened the coverage of mobile learners, thus overcoming the resistance.

### **Challenges Of M- Learning**

M-learning is no doubt an emerging concept in today's dynamic world but at the same time so many challenges are associated with it, which act as a roadblock in the way of successful implementation of this concept. These challenges include:

## **Privacy And Security Issues**

Technology no doubt has made our learning easier, but it comes at the cost of our privacy. The technologies that ensure security and privacy in the mobile applications need to be improved. Adjustments have to be made for new users under M-learning.

## **Screen Size**

It is a challenge to bring content which can be viewed on a 15-inch mobile screen. Content development for different screen sizes can also prove to be a challenge for the developers.

## **Frequent Distractions**

One of the biggest disadvantages of using a mobile phone is that there are different kinds of information that can be assessed. The users manage a range of activities, from assessing social media to sending text messages, from attending phone calls to listening to a training video. This variety of things can actually distract the learners as they can be easily sidetracked.

Like for example, if you are answering a call while preparing your lessons, later on you might not be able to identify what you were learning. Keeping one sided focus on a mobile device is a big challenge.

## **Proper Internet Infrastructure**

Mobile devices cannot prove to be of any use without a proper internet connection. Internet infrastructure in many educational institutions may crash down because of so much user traffic.

## **Measuring Result**

Mobile learning can be a standalone activity, but it can prove to be a challenge for the teachers to determine exactly how much mobile devices have contributed towards improving the students' academic performance.

## **Health Issues**

Increased use of technology has come along with a very big challenge of taking care of a young generation's health. Psychological, social and health issues are associated with technology.

Issues like lack of sleep, cyber-bullying, sexting, cancer, transmission of germs, vision loss, lower back problems are a few issues commonly associated with increased use of mobile phones. Rather than being a learning platform these smartphones may turn out to be a bane for coming generations.

## Tips To Overcome Challenges

In order to overcome the limitations of mobile learning following tips can come handy while using mobile technology:

- M-learning content should be kept short so that users don't lose focus.
- Teaching focus to be on how learners can be smarter and faster. Rather than teaching something new. The focus should be making them learn things in a better way. Users are less likely to process new information on an uncharted territory.
- Easy navigation and improved functionality are a key to M-learning. Users don't have a mouse to click from one page to another so it is important to ensure that navigation is easy for users. Navigation might prove to be better than scrolling.
- Parents and teachers have to set boundaries and guide about the appropriate and inappropriate of usage of phones.

## Conclusion

With the increasing popularity of mobile devices and widespread uses of mobile applications, a new era in learning is not far off. An era where E-Learning might be running exclusively on mobile learning apps is something we can foresee in the coming future. Let's not forget that M-learning is just a way to deliver content, but it will not prove to be effective mode of delivering content for Complex education/training programs. Mobile content needs to be precise and short. Animation or bite size content may prove to be effective than long e-learning programs. While using mobile learning we should stay aware of the security risks as well. Mobile learning promises to improve the effectiveness of classroom teaching but it is not a substitute for it.

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# CHAPTER XVII

## IMPACT OF CELEBRITY ENDORSERS ON CONSUMER - BRAND RELATIONSHIPS

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### **Abstract**

Celebrities as human brand are engaged in selling product brands by persuasion through advertisements by allocating their own personality qualities to product brands and thereby, encouraging consumption of product brands. Attachments are also a type of strong relationships that individuals often develop as children with their parents. The attachment theory principles govern the relationships between romantic partners and in developing friendships and familial bonds. Four attachment styles have been identified consisting of secure (low anxiety and low avoidance), dismissing (low anxiety and high avoidance), preoccupied (high anxiety and low avoidance), and fearful (high anxiety and high avoidance).

**Keywords:** Celebrity endorser, brand relationships, brand attachment, India.

### **Introduction**

Rindova et. al. (2006) defines the term human brand as any well known persona on who is the subject of the marketing communication efforts. Thomson (2006) asserts that celebrities are also human brands because they can be resourcefully administered and they have associations and characteristics of a brand. Celebrities as human brand are engaged in selling product brands by persuasion through advertisements by allocating their own personality qualities to product brands and thereby, encouraging consumption of product brands (Holmes and Redmond, 2014). McCracken (1989) states that when a consumer purchases and consumes a product brand endorsed a celebrity, they acquire some of the celebrity meanings and they can use these meanings in developing their self-concept. Celebrities as endorsers could trigger activation of an ideal self concept and could be assessed in relation to it (Peter and Olson, 1996; Sirgy, 1982). Despite the significance of celebrity endorser in forming relationships with consumers, there has been little research about the celebrity-consumer relationship. In order to completely

exploit the potential of celebrity endorsers, it is significant from both managers and academicians point of view to identify moderators that provide detailed significant insights into the celebrity endorser traits which are essential for consumer emotional attachment to a brand. We used attachment styles as a moderator in assessing the relationship between celebrity endorser traits and brand attachment. This paper uses attachment theory as given by Bowlby (1980) to understand the role of celebrity endorser traits on brand attachment.

Mende et. al. (2013) confers that companies aim to build and develop close relationships with the consumers because relationship marketing leads to better results for them. As developing relationships increase profits due to decrease in operating costs, cross-selling and higher willingness to pay (Reichheld and Sasser, 1990). Serwer (2001) states that companies all over the world are spending huge amount to build and develop relationships between consumers and human brands. Attachments are also a type of strong relationships that individuals often develop as children with their parents. Further, afterwards in life, they develop attachments with other people such as celebrities (Leets, De Becker, and Giles, 1995) and brands (Esch, 2006). Lacoeyuilhe (2000) defines brand attachment as a "psychological variable that reveals a lasting and inalterable affective relationship (separation is painful) to the brand and expresses a relation of psychological closeness to it." Esch et. al. (2006) state that brand attachment leads to a long term and commitment inducing relationship between the consumer and the brand. Praet (2008) asserts that celebrities featured in less than 15% of ads in European countries and USA while in Asia, there has been fairly large share of ads featuring a celebrity ranging from 25% (China) to 61% (South Korea). Considering the significance of celebrity endorsement, organizations are even specializing in managing brands with respect to dead celebrities (Halpern, 2005) and also in the field of political advertising (Edsall and Grimaldi, 2004). Thus, the companies are explicitly involved in building and managing human brands and brand attachment.

Mikulincer and Shaver (2007) have defined attachment style as "an individual's systematic pattern of relational expectations, needs, emotions, and social behaviours that results from the internalization of a particular history of attachment experiences." We have used general attachment style as also used by previous researchers (Thomson and Johnson, 2006; Swaminathan et al., 2009; Paulssen, 2009; Mende and Bolton, 2011) in the marketing literature. Attachment style comprises of two dimensions, namely, anxiety and avoidance. Anxiety dimension is based on the individual's view of the self while avoidance dimension is based on the individual's view of the others. Interpersonal attachment styles reveal the different types of consumers to be affected by celebrity endorser traits. Wright (2016) posits that a celebrity is not fit for endorsing all products and services. Different celebrities with different traits are likely to influence consumers with different attachment style. Thus, we suggest that consumer attachment style based on anxiety and avoidance dimension will moderate the effect of celebrity endorser's trait on brand attachment.

The objective of this article is to address the issue of moderating role of attachment style dimensions on the relationship between the celebrity endorser traits and dimensions of brand attachment. This study provides a framework for explaining underlying mechanism how and why people engage or disengage in forming brand attachment in the context of celebrity endorsers and also studies the role of attachment styles in influencing the celebrity-brand attachment relationship. This study provides a framework for highlighting the role of attachment theory in the field of consumer behaviour and brand management. This leads to conceptual framework, followed by methodology and results. Further, the results have been discussed in detail leading to theoretical and managerial implications of the study and followed by the limitations and scope for further studies.

## **Literature Survey**

Celebrity endorsements have been an extensively researched area in the field of brand managements. The literature survey reveals that celebrity endorsement literature focuses on the three celebrity endorser characteristics consisting of three credibility dimensions, namely, attractiveness, trustworthiness and expertise. Previous research has studied the impact of celebrity endorsers characteristics on sales (Elberse and Verleun, 2012; Chung et al., 2013); Garthwaite, 2014), share prices (Agrawal and Kamakura, 1995; Ding et al., 2011; Mathur et al., 1997; Nicolau and Santa-Maria, 2013; Bartz et al., 2013), brand evaluations consisting of brand attitude or purchase intentions or both (Lafferty and Goldsmith, 1998); Eisend and Langner, 2010; Kahle and Homer, 1985; Liu and Brock, 2011; Lord and Putrevu, 2009; Till and Busler, 2000)), brand equity (Spry et al., 2011; Dwivedi et al., 2015) and behavioural intentions (Bush et. al., 2004). The previous research shows that there has been little research conducted in the field of celebrity endorsers in development of emotional attachment with brands. Considering the significance of developing attachments with consumers, there is a need for conducting a study which identifies the relationship between celebrity endorser's characteristics and dimensions of brand attachment.

Attachment theory as given by Bowlby (1969, 1980) states that in the childhood years an individual's interaction with primary caregivers form the basis for systematic differences for building relationships in later life. The attachment theory principles govern the relationships between romantic partners (Hazan and Shaver, 1987) and in developing friendships and familial bonds (Ainsworth 1989; Trinke and Bartholomew 1997). Bartholomew and Horowitz's (1991) classified individuals on the basis of two dimensions of attachment theory, namely, anxiety and avoidance. The anxiety dimensions determine the level to which an individual's view of self is positive or negative while avoidance dimensions determine the level to which an individual's view of others is positive or negative. Four attachment styles have been identified consisting of secure (low anxiety and low avoidance), dismissing (low anxiety and high avoidance), preoccupied (high anxiety and low avoidance), and fearful (high anxiety and high avoidance). Further, Vlachos et al. (2010) states that consumers can also easily develop potent affective bonds in

commercial relationships as in personal relationships. Paulssen and Fournier (2005) state that commercial relationships act in a similar way as personal relationships. However, there has been limited research (Diehl, 2009; Mende and Bolton, 2011; Bidmon, 2016; Mende et al., 2013; Paulssen 2009; Swaminathan, et al., 2009; Thomson and Johnson, 2006) which studies the impact of attachment styles in the context of customer relationships.

Thomson and Johnson (2006) found that both anxiety and avoidance dimensions of attachment style have negative effect on the reciprocity. Paulssen (2009) applied attachment theory in the context of business to business relationships. They found that secure attachment style resulted in increased levels of trust, satisfaction and repurchase intention across business relationships. Swaminathan et. al. (2009) found that attachment styles serves as a moderator in the relationship between the brand personality and different brand outcomes such as brand attachment, purchase likelihood and brand choice. Mende and Bolton (2011) studied the impact of both dimensions of attachment styles, namely, attachment anxiety and attachment avoidance on customer-firm and customer-employee relationships. The results revealed that low anxiety consumers and low avoidant customers tend to experience increased levels of satisfaction, trust and affective commitment. Mende et. al. (2013) found that as customer anxiety and avoidance increases, the repurchase intentions towards a brand decreases. Attachment styles of a customer impacts their loyalty behaviour. The results also show that attachment anxiety decreases cross-buying and disloyal behaviours. The customers' attachment anxiety was positively associated with preference for closeness whereas the customer attachment avoidance was negatively associated with preference for closeness. Beldona and Kher (2014) found that out of the two dimensions of attachment style, attachment avoidance had greater influence on perceived hotel hospitality than attachment anxiety. Bidmon (2016) studied the relationship between the two dimensions of attachment styles, namely, secure-anxious and dependent-independent dimensions, brand attachment predisposition dimensions consisting of secure and dependent brand attachment predisposition, brand attachment, brand trust and brand loyalty. The results showed that dependent- independent attachment style in more important for forming brand attachment, brand trust and brand loyalty while there is no significant influence of secure-anxious attachment style on brand attachment predispositions. Further, there is a significant relationship between secure brand attachment predisposition and brand trust but not in case of brand attachment. David and Bearden (2017) found that the effectiveness of advertisements which show interpersonal relationships, such as, romantic relationship and friendship are related with consumer attachment style. The result showed that individuals with secure attachment styles are more likely to purchase products whereas highly anxious individuals will not make buy products depicted in relational advertisements. Japutra et al. (2018) examined the moderating impact of attachment styles in the relationship to examine the impact of brand attachment on brand loyalty, trash-talking, Schadenfreude and anti-brand actions. The result shows that attachment avoidance moderates the impact of brand attachment on four consumer behaviours whereas attachment anxiety does not moderate the relationship between brand attachment and four consumer behaviours.



The literature survey shows that though there are studies relating to attachment styles in the marketing context but none of them have explored the relationship between the celebrity endorsers and emotional attachment to brand by using attachment styles as a moderator. Thus, there is need for a study which develops a framework and tests these relationships.

## **Implications Of The Study**

This is one of the early researches that attachment styles and brand attachment in the context of celebrity endorsements. This research provides multiple implications for the marketing practitioners and academicians. First, this research provides direction to marketing practitioners who want to recognize the importance of celebrity endorsers in developing brand attachment. Practitioners should design advertisement themes around celebrity endorser traits that foster brand attachment with consumers. Second, the use of attachment style dimensions helps to identify consumers who choose to have high or levels of brand attachments. Our framework for studying brand attachment helps managers to study the relationship between celebrity endorser traits and attachment style. Managers could use the strong brand attachment of low anxious and low avoidant consumers which they could use in case of brand extension. Third, they also need to modify their segmentation, targeting and relationship marketing programs by investigating psychographic profile along with the demographic profile of the consumers. Fourth, managers must be careful of consumers who have anxious attachment styles. Fifth, the better understanding of the relationship between consumer attachment styles and brand attachment may help managers in acquiring new consumers easily as they can develop attachment with them by using celebrity endorsers with relevant traits. Sixth, it also helps academicians by studying the role of interpersonal attachment styles in the context of celebrity endorsers by revealing that use of celebrities with certain characteristics can increase brand attachment.

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# CHAPTER XVIII

## A COMPARATIVE ANALYSIS OF PERCEPTION OF RURAL AND URBAN CUSTOMERS ABOUT GREEN BANKING PRACTICES

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### **Abstract**

Green Banking refers to the initiatives taken by banks to encourage environment-friendly investment. It is vital for all the banks to promote Green Banking facilities so as to sustain the ambiance in the current scenario. Banks are required to apply such techniques in a successful manner so as to compete in such a changing atmosphere. By adopting the environmental factors in their lending activities banks can recover the return from their investments and make the polluting industries become environment-friendly. This paper aims to find out the perception of banks customers about such practices so as to analyse the rate of awareness among population and to provide a base to such banks to make further plans about the progress to such facilities among bank customers and for this purpose data has been collected from 120 samples of various regions through questionnaire method. As a result, it has been found that urban customers are much aware about use of Green Banking as compared to rural customers.

**Keywords:** Green Banking, Green products, Perception, Environmental Sustainability, Awareness

## Introduction

The concept of Green Banking is useful for all banks, industries and the economy. The term Green Banking is used to indicate the initiatives taken by banks to promote environmental sustainability and substantial economic development. Green Banking aims at improving the banking operations along with encouraging clients to make sagacious utilization of all resources and reduction in carbon footprints. According to the Institute for Development and Research in Baking Technology ' Green Banking is an umbrella term referring to practices and guidelines that make banks sustainable in economic, environmental and social dimensions. It aims to make banking processes and the use of IT and Physical Infrastructure as efficient and effective as possible, with zero or nominal impact on the environment'.

## Green Banking In Indian Scenario

Green Banking encourages banks to conduct eco-friendly investments by combining its operational improvements and technological know-how in banking business activities. Green Banking has started priority lending to those industries which are already green or putting its efforts to go green. The concept of going green is new in India and has been adopted by a plethora of Indian banks in numerous ways. Banks have started enormous amenities such as online banking, mobile banking, green loans, E-statements, etc. They have been promoting their services 24\*7 to the consumers.

## Green Banking Products

There are plethora of green products and services which Indian banks offer to general public in recent scenario-

- 1) **Green Securitization** - A securitization can be defined as green when the underlying cash flows relate to low-carbon assets or where the proceeds from the deal are earmarked to invest in low-carbon assets. Banks have started to introduce various environmental securitization techniques such as forest bond, pilot program etc.
- 2) **Green Index** - It is eco-friendly *stock market index* that allows investors to track the *carbon efficiency* of companies doing business in **emerging economies**. This pioneering index is meant to encourage **carbon-based competition** among emerging-market businesses, give carbon- efficient companies access to long-term investors and result in **lower carbon emissions in developing countries**.
- 3) **Green Mortgages** - Green mortgages are a method of incentivizing the adoption of green housing methodologies. Such mortgages are also called Energy Efficient Mortgages (EEM) or Energy Improvement Mortgages (EIM). The Centre for Vernacular Architecture operating from Bangalore is an example and attempts to use traditional indigenous knowledge and local materials to build eco-friendly

homes.

**4) Green Saving Accounts** - An individual who fulfils the eligibility criteria mentioned above can open and operate SBI Digital Savings account in his/her own name. In case of This Service is currently available on iPhone with iOS 8 and above, Android Phones with Android version 5.0 and above.

**5) Mobile And Online Banking** - These facilities led to less time consumption, less paper use and more flexibility.

## **Punjab National Bank**

Punjab National Bank is one of the most prestigious and oldest banks of India which was established on 19 May, 1894. It has headquarter in New Delhi, India. As of June 2019, the bank has over 115 million customers, 7,036 branches and 8,906 ATMs. On 30 August 2019, Minister Nirmala Sitharaman announced that the Oriental Bank of Commerce and United Bank of India would be merged with Punjab National Bank. The proposed merger would make Punjab National Bank the second largest public sector bank in the country with assets of ₹17.95 Lakh crore (US\$250 billion) and 11,437 branches. MD and CEO of United Bank, Ashok Kumar Pradhan, stated that the merged entity would begin functioning from 1 April 2020. The bank provides a wide range of financial services for it's customers which include consumer banking, corporate banking, equity, mortgage, credit card, finance and insurance banking, wealth management etc. Apart from financial activities the bank is also involved in various social initiatives such as farmer empowerment, **environment friendly initiatives**, education and health initiatives for the financially disadvantaged category.

**Green initiatives** taken by the bank are as under:

1. The bank started debit cards and credit cards facilities for its customers in order to promote paperless banking.
2. The bank promotes Paperless deposit machines.
3. Internet banking, mobile banking, ATM facilities atc. is also started by PNB bank.
4. The bank initiated the use of energy saving appliances and keeps a check on the same by conducting electricity audits in its offices.
5. The bank sanctioned wind energy project.
6. PNB initiated Green credit cards as well for protecting the environment.
7. The bank initiated green practices in the form of efforts like using both sides of a paper for

printing, immediate action against water leakages, use of low power consuming lights etc.

8. Almost 310 Tree plantation drives have been deployed by the bank.
9. Besides all the above-mentioned initiative the most important effort made by bank is that it creates a separate green audit sheet for regular check on impacts of Green Banking initiatives implemented by bank.

## **State Bank Of India**

The origin of the State Bank of India goes back to the first decade of the nineteenth century with the establishment of the Bank of Calcutta in Calcutta on 2 June 1806. Currently, The **State Bank of India (SBI)** is an Indian multinational, public sector banking and financial services statutory body. It is a government corporation statutory body headquartered in Mumbai, Maharashtra. SBI is ranked as 236th in the *Fortune Global 500* list of the world's biggest corporations of 2019. It is the largest bank in India with a 23% market share in assets. In the financial year ended March 2019, SBI posted a standalone profit of Rs 862 crore and a consolidated profit of Rs 2,300 crore.

### **Green Banking Initiatives By SBI**

- 1) SBI is the first bank in the country which has started launching windmills for power generation. Almost 10 windmills have been launched by this bank with the capacity of 15 MW in Tamil Nadu and Maharashtra. In 2010, Green Channel Counter (GCC) facilities were commenced to replace paper banking.
- 2) SBI entered into an agreement with Suzlon Energy Ltd for wind power generation in selected branches.
- 3) Export Import Bank of India (EXIM) and SBI joined together to jointly provide long term loans up to 14 years to two companies for establishing solar plants.
- 4) It has also made significant investments in Artificial Intelligence, the Internet of Things (IoT), Robotics, Branch Server consolidation etc. which has led to enhanced energy efficiency and reduced carbon footprint.
- 5) The bank has provided 'YONO'- the Bank's flagship digital app for retail customers launched in November 2017, and crossed several milestones. As an integrated omni channel digital platform, YONO today, offers both lifestyle and banking experiences with more than 30 products live on a financial superstore and nearing 90 merchant partners live on the B2C Marketplace platform across 21 categories.

- 6) Financial Inclusion (FI) and financial literacy programs have also been designed to incorporate digital aspects into the activities. The spread of digital banking channels and expansion of the Business Correspondent (BCs) network have given the Bank the impetus to further grow its FI activities.
- 7) The BC channel recorded 39.75 crore transactions in FY19, which translated to approximately 1.5 million transactions per day.
- 8) A real time help platform, 'e-Gyanshala', has been launched on a pilot basis, serving as a one-stop knowledge repository for all employees wishing to access guidance documents related to operational instructions.

## **ICICI Bank**

ICICI Bank was established by the Industrial Credit and Investment Corporation of India (ICICI), an Indian financial institution, as a wholly owned subsidiary in 1994. The parent company was formed in 1955 as a joint-venture of the World Bank, India's public-sector banks and public-sector insurance companies to provide project financing to Indian industry. ICICI Bank Limited is an Indian multinational banking and financial services company headquartered in Mumbai, Maharashtra with its registered office in Vadodara, Gujarat. As of 2018, ICICI Bank is the second largest bank in India in terms of assets and market capitalization. Currently, there are more than 5,000 branches and 15,589 ATMs developed by ICICI bank all over the nation.

### **Certain Green Banking Initiatives By ICICI Banks -**

1. ICICI Bank has incepted the scheme where it waives off 50 percent processing fee if taken for purchasing the product which is energy saver such as car models like Reva electric cars, Hyundai's Santro Eco, Tata Indica CNG etc. Banks have also alleviated processing fees for customers purchasing leadership in energy and environmental design certified buildings.
2. ICICI Bank has partnered with local NGOs in Maharashtra with the aim of electrification of villages and Public Health Centres in remote regions of the state.
3. Jawhar Tehsil was in darkness until ICICI Bank assisted in the solar electrification of 7 villages in the tehsil. The Bank transformed the lives of residents of over 190 households across these 7 villages.
4. In Nandurbar district, Public Health Centres (PHCs) could not function properly due to lack of electricity. ICICI Bank helped in the electrification of 11 PHCs using solar power.
5. ICICI Bank led a tree plantation drive in Chhattisgarh and Maharashtra with support from the

government and the local NGOs. The drive was aimed at benefiting the local tribal communities. With a grant assistance of Rs. 7 million for planting 170,000 trees; ICICI Bank endeavored to enhance the green cover in these states.

6. To ensure uninterrupted banking transactions at the Gramin branches, ICICI Bank has installed solar power facilities at 522 Gramin branches across 7 states of India. This initiative has also contributed to significant reduction of our carbon footprint.

7. ICICI Bank launched 'Go Green' - an organisation-wide initiative to reduce its own carbon footprint. The initiative covered energy conservation, water conservation and reduction of paper usage. With active participation from the employees, the Bank has reduced paper consumption by 33% over the past two years thereby saving over 13,000 trees.

8. Moreover, it motivates the workers to turn off all lights and electronic equipment when not in use as well as it makes extensive use of webinars in conducting meetings and workshops reducing the need to travel.

9. It follows the practice of reusing paper along with sharing electronic files, voice mail and e-mail instead of paper memos. Since 2010, their employees have been using dateless diaries.

## **Review Of Literature**

**Dr. Gobinda Deka (2018)** in their article '*Customers' Perception on Green Banking Practices of State Bank of India: A SWOC Analysis*' discusses customers perspectives on the adoption and usage of various Green Banking practices introduced by the banks in the state of Assam in India. This study concludes with the statement that 'Green Banking practices are not only feasible; they are now becoming essential.

**Deepa P. and Dr. Karpagam C. R. (2018)** in their article '*A study on Customer's awareness on Green Banking in selected public and private sector banks with reference to Tirupu*' aims to identify the awareness and usage of Green Banking services by the customers selected from different banks. Researchers have made an attempt to study the impact of Green Banking initiatives taken by public and private sector banks on population of various age groups.

**Dr. G. Prakash Raj and Dr. A. Pappu Rajan** in their article '*A Study on The Customer Awareness on Green Banking Initiatives*' discuss Green Banking initiatives taken by the largest public sector bank in India (State Bank of India) and the awareness and perception of its customers towards such initiatives. It aims to study the satisfaction level of customers of SBI in using the Green Banking applications.



**Subrata et. al., (2017)** in their *'Awareness and Perception of Bank Customers towards Green Banking in Sylhet District of Bangladesh'* explores the awareness and perception of bank customers about the Green Banking practices of commercial banks of Sylhet district. Results of the study indicated that the customers were more aware about the facility of SMS banking.

**Prakash et., al., (2017)** this article *"A study on the Customer Awareness on Green Banking Initiatives"* studies the Green Banking initiatives taken by the largest public sector bank in India (State Bank of India) and the awareness and perception of its customers towards Green Banking products introduced by SBI.

**Satheesh (2017)** in his study *"A Study on Customers Awareness on Green Banking Initiatives in Selected Private Sector Banks with reference to Kunnamkulam Municipality"* makes an attempt to check the awareness level of Green Banking among the general public, customers and green bank employees. Chi-square test is used to test the association between banker's motivation and its effectiveness. It was concluded stating banks should take necessary action to educate the general public for initiating a Green Banking system.

## **Statement Of Problem And Need For The Study**

With the rapid increase in environmental pollution, this has become crucial for all to indulge in green practices in order to preserve the environment. Almost every sphere of the economy tries to take initiative for environmental sustainability. Banks are also putting efforts for the same. Hence, it is crucial to analyse the awareness and perception in the minds of customers about the Green Banking practices initiated by banks. Thus, this study tries to find the perception of rural and urban customers about Green Banking facilities.

## **Objectives**

1. To study the awareness level of Green Banking initiatives of banks among rural and urban customers in selected banks
2. To find out the positioning of Green Banking products in the minds of customers and
3. To offer suggestions for the effective implementation of Green Banking initiatives

## **Hypothesis**

H0: There is no significant knowledge among customers about e- services of banks among rural and urban respondents and their positive impact on environment.

H1: Customers have knowledge about the Green Banking services but have the dilemma of using the technological equipment for banking transactions.

## **Scope Of The Study**

The present study is confined to the domicile limits of rural and urban areas of Punjab. The study includes SBI, ICICI and PNB banks as these are largest banks in business volume.

## **Sources Of Data Collection**

The study relies on the primary source of data, where bank customers are the respondents. It has also collected relevant material from various articles, websites, books and report.

## **Methodology**

As the study tries to find the level of perception of Green Banking practices among the customers and its acceptance by the customers of respective banks, a descriptive method is selected.

## **Sample Design**

Customers of public sector banks are considered to be the population of the study area. Sample units are selected randomly. Samples of 120 customers (sample units) are selected from banks. (PNB, SBI and ICICI).

## **Survey Period**

The survey is conducted between two months from January to March, 2020.

## **Limitations Of The Study**

Chances of response error as the study is dependent mainly on primary data. The study just tries to describe the perception of various Green Banking practices and does not diagnose the reasons and effects.

## **Survey Analysis And Results**

The first section of the analysis and interpretation of the primary data reveals the information about the demography of the respondents and the tenure of customers spent with banks which is briefed in the below Table- 1 and 2. Second section of the analysis is about awareness of the Green Banking practices among customers from table 3 to 5.

The profile of the respondents-customers as per gender, age, educational level, marital status, occupation, annual income, type of family and family size are furnished in Table- 1. The tabular chart demonstrates the demographic profiles of the respondents. The data is collected from 42.5% males and 57.5% females. Most of the customers belong to rural areas as represented by 60.8% whereas, urban customers accounted for 39.2%. Most dominant sample belong to the age group 18-29 (60.8%) and minimum banks customers from the age group 50 or more. As per occupation most of the respondents were students (42), followed by 37 salaried class people. Only one respondent was a farmer and 4 were labourers.

**Table - 1**

**Demographic Profile of Customers**

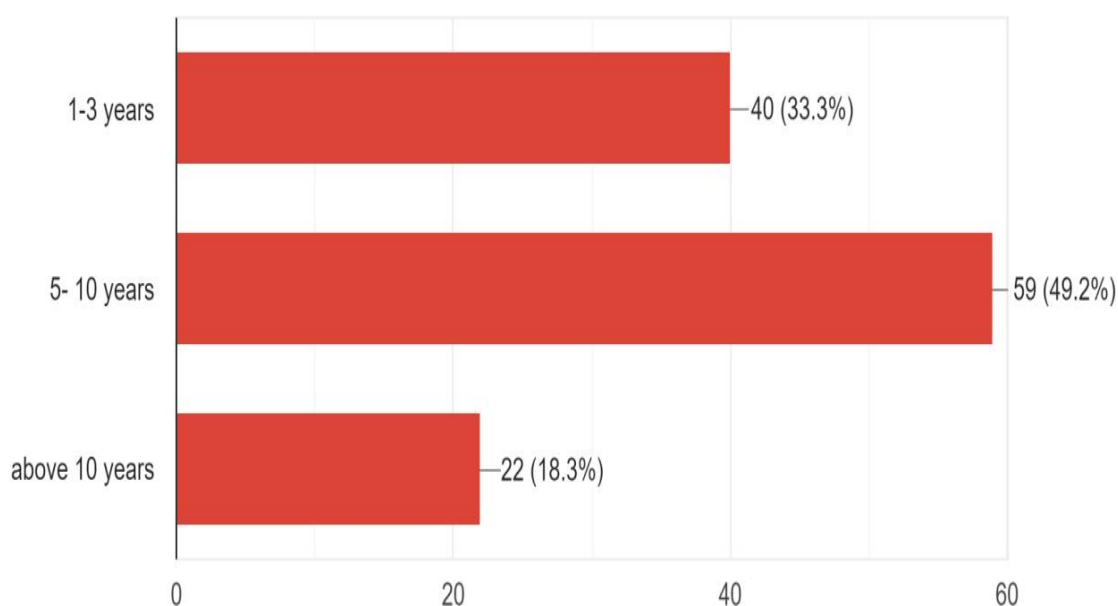
<b>Group</b>	<b>Number of customers</b>	<b>Percentage</b>
<b>Gender</b>		
Male	51	42.5
Female	69	57.5
Total	120	100.0
<b>Area</b>		
Rural	73	60.8
Urban	47	39.2
Total	120	100.0
<b>Age</b>		
18- 29	73	60.8
30 - 39	19	15.8
40 - 49	17	14.2
50 and above	12	10.0
Total	120	100.0
<b>Occupation</b>		
Students	42	35
Professional	9	7.5
Salaried Class	37	30.8
Agriculturist	1	0.8
Labour	4	3.3

Homemaker	5	4.2
Businessman	7	5.8
Others	15	12.5
Total	100	100.0

Source: Primary Data

**Chart- 1**

**Tenure of respondents spent with selected banks**



Source: Primary data

The bar graph describes the duration that the respondents have spent with selected banks. Out of 120 samples, 49.2% respondents have between 5-10 years' experience with their respective banks, followed by 33.3% customers having experience of 1-3 years.

**Table – 2**

**Awareness of Green Banking activities in selected banks**

	PNB	ICICI	SBI	Total
Aware And Use	19	28	15	62
Aware But Donot Use	16	5	13	34
Not Aware	5	7	12	24
<b>Total</b>	<b>40</b>	<b>40</b>	<b>40</b>	<b>120</b>

Source: Primary Data

The above table depicts the awareness of Green Banking activities of selected banks. It is clear to observe that maximum customers of ICICI are aware about using Green Banking services whereas, 12 respondents of SBI are not aware about using the same which is the maximum. However, 16 respondents are aware but do not use green services of PNB.

From the table number 3, it is found that 78 respondents are aware about debit card facilities and also use the same which is the highest rate under the head 'aware and use' of any green practice. There are least customers who are not aware about debit card services. 44 respondents are aware but do not use the internet banking facility. Similarly, we get 39 respondents who are not aware about the cash deposit machines.

**Table – 3**  
**Customer Awareness on Green Practices at bank**

<b>Analysis regarding usage of different green practices among bank customers</b>				
	<b>Aware and Use</b>	<b>Aware but Do Not Use</b>	<b>Not Aware</b>	<b>Total</b>
Debit cards	78	27	15	120
Net Banking	57	44	19	120
Avoid physical receipts	71	26	23	120
Receive e-statements	55	38	27	120
Mobile Banking	64	34	22	120
Cash Deposit Machine	33	48	39	120

*Source: Primary Data*

**Table – 4**  
**Analysis of perception of urban and rural customers about Green Banking practices in selected banks**

	<b>Aware And Use</b>	<b>Aware But Do Not Use</b>	<b>Not Aware</b>
<b>Rural Areas</b>			
PNB	8	13	2
ICICI	15	2	5
SBI	5	11	11
<b>Urban Areas</b>			

PNB	11	3	3
ICICI	3	13	2
SBI	8	3	2

*Source: Primary Data*

## Major Findings Of The Survey

1. Most of the customers are not aware of the Green Banking concept practiced by the banks in rural areas. This may be likely due to low literacy level, difficulty in practice, less promotion; less awareness on basic intent etc.
2. Major (78 respondents) portion of the respondents falls in the category of aware and use of debit cards facility. Least (39 respondents) in that category is using cash deposit machines. Highest in the category of aware but not used is again the usage of cash deposit machines (48 respondents), least is not aware about debit cards. Respondents are not much aware of receiving e-statements.
3. Major portion of respondents are not aware about cash deposit machines.
4. On the basis of analysis of different bank customers, it is found that there are least customers of SBI who are aware about green practices and maximum no. of customers who are aware and use Green Banking practices in ICICI Bank.
5. It is also found that in urban areas, more than 60% of SBI and PNB customers are much aware of using Green Banking products whereas in rural areas, the ratio in these two banks is 18% and 25% respectively. But the scenario is totally opposite in case of ICICI bank as in rural areas, 70% of the population is aware about using Green baking facilities and in urban areas, most of the people are aware but do not use such facilities.

## Suggestions

1. The most important thing to do for utilization of Green Banking services is to make people aware about their positive impact on the environment.
2. For enhancing the awareness among customers, proper advertisements and campaigning should be done to serve the purpose.
3. Most of the respondents are not aware about cash deposit machines. So, an effort should be made to increase the usage of this service by customers.

## Conclusion

By all counts and with the proven results, it can be concluded that there are a large number of customers who are not aware about the Green Banking practices and their positive impact over the environment. The reasons behind that are found to be the illiteracy, lack of awareness, less advertisements of such efforts and the reasons behind them. Moreover, there is no such effort made to increase the degree of awareness among customers by the banks. There are various customers who are aware about the services but do not use them. Our study and personal interrogation with the respondents found the reasons behind that customers have a fear of losing data online as in case of internet banking and also avoid online banking transactions due to increasing cybercrimes.

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# CHAPTER XIX

## ROLE OF BANKING AND WOMEN EMPOWERMENT

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### **Abstract**

Growth of bank represents growth of economy. Banking is the pillar of Indian Economy. Without adequate Banking facilities, financial sector will collapse. The more the safe, secure and progressive is Banking system more is the stable financial sector. Banking also becomes important for women. For women independence, financial independence is necessary. For financial independence, banking by women is imperative. Women who have bank accounts, do financial transactions are more likely to be independent and active. It also means they are active contributor to the economy and thus are empowered. This is the co relation of banking and women empowerment and its importance is obvious. If women need to be empowered, they should have more access to banking facilities in the country. Banks certainly do play an important role in women empowerment.

**Keywords:** Women, Banking, Finance, Empowerment

### **Introduction**

Banking is the pillar of Indian Economy. Without adequate banking facilities, financial sector will collapse. Growth of bank represents growth of economy. The more the safe, secure and progressive is Banking system more is the stable financial sector. Banking also becomes important for women. For women independence, financial independence is necessary. For financial independence, banking by women is imperative. Women who have bank accounts, do financial transactions are more likely to be



independent and active. It also means they are active contributor to the economy and thus are empowered. This is the co-relation of banking and women empowerment and its importance is obvious.

## **Women Banking In India**

Fortunately, and pleasantly indicating a positive trend, participation of women in the banking sector has inflated over the years. According to a World Bank report, women account ownership has inflated by 30 per cent between 2014 and 2017. Further, 29 per cent of women in India use digital payments. This rise is accredited to the **Pradhan Mantri Jan Dhan Yojana (PMJDY)**. The World Bank report also suggests about gender gap of 6 per cent in 2017, which is an improvement due to being a decline from 20 percent in 2014. (*Source :- bfsi*)

## **Role Of Banking In Women Empowerment**

### **1. Bank Accounts**

According to World Bank's Empowering women through financial report 'women are more likely to save, allocate, and invest money in order to be protected against unexpected expenses, and in their children's education; giving an opportunity for a better livelihood to the next generation'. Thus, we see a clear co relation between the two.

### **2. Providing Educational Loans**

Banks provide educational loans. Central Government and R.B.I are ensuring that women have quick and easy access to loans. Specially, educational loans. Educational loans can be for technical education, higher education, foreign education or even school education. Dr. Preeti Goyal (2018) says in this regards 'while special schemes for women entrepreneurs such Annapurna Scheme, Stree Shakti Package for Women Entrepreneurs and Bharatiya Mahila Bank Business Loan are a step in the right direction, we still have a long way to go before we can reach a desirable level of holistic financial inclusion for women. In an effort to improve this, the government needs to start thinking of additional steps to tackle low informal sector wages and women illiteracy.

### **3. Providing Financial Assistance To Women**

Banks play a crucial role in providing financial assistance to women folk for small scale and large scale business ventures. They provide for house hold business, entrepreneur ventures and also for cottage industries. But, the key again rests on the fact that it should be fast, easy and accessible. Banks also provide financial assistance for home loans, vehicle loans such as car loans.

#### **4. Priority Banking Or 'Mahila Banks'**

This has been commendable effort from the Government to set up Mahila Banks or Women Only Banks. This mainly aims to make accessible the Banking services for women who feel intimidated by banking procedures operated by men. Its motto was 'Empowering Women, Empowering India'. This Bank especially comes as a boon for illiterate, middle class women and rural women. According to Suresh Rajagopal, (2028) President, FSS, 'The immense significance as financial inclusion is the first step to women empowerment. Bharatiya Mahila Bank was also a great initiative not only focused on women but also run by women. The bank provided easy collateral-free loans as well as insurance and pension policies to a woman that brings them an opportunity to be financially independent and pursue their entrepreneurial dreams. Technological advances have made it easier for women to do banking for which they earlier had to depend on a male member or a third party. Mobile banking and digital payments eliminate the need for women to make visits to banks and allows them to conduct banking transactions from their homes'.

#### **5. Employment**

As the women's education and technical knowledge is increasing, banking are providing jobs and employment opportunity to them. As years are passing by, we can see gradual increase of women employment in banking sector. Banking jobs provide financial freedom and independence to the women. Pleasantly, job growth of women in rural areas is also increasing. Interestingly, Banking Sector is emerging as pro women sector after education sector in India.

#### **6. Gender Disparity and Reality**

Despite, all the best efforts from the government and PSU Banks, women still remained away from banks and its services due to social and cultural barriers that prevent women from access to banking services. If we look at the comparative statistics regarding women in the banking sector, it paints a rather gloomy picture. With women holding only 24% of total operational bank accounts in the country and 28% of total deposits; the participation of women in the banking sector is definitely not at an acceptable level. Especially when it comes to credit supplied, only 12% of individual bank loan accounts belonged to women, which clearly shows a disparity of access to banking services between the two genders.

#### **Conclusion**

If women need to be empowered, they should have more access to banking facilities in the country. Banks certainly do play an important role in women empowerment. To Conclude it would be worthwhile to quote Dr. Manisha Ketkar who emphasizes that, 'One of the important factors that would lead to women empowerment in India is their financial independence. Women need to be empowered

economically. This will make women self-reliant and give them the freedom to choose. This will enable them to benefit from the different options available at their free will. This will make women's lives enriching and joyful. Once a woman becomes financially independent and can exercise her choices, she can also help her mother, sister, daughter, and other women in the society to become empowered. This will elevate women's position in the society and will bring in equality'.

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# CHAPTER XX

## PREVALENCE OF OBESITY IN INDIA - A REVIEW

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### **Abstract**

Obesity is a health and medical problem. Obesity carries a significant health and social burden due to various associated reasons. Obesity is one of the leading risk factors for premature death worldwide. In India, obesity increases from 21 percent to 24 percent among women and 19 percent to 23 percent among men (MHFW, 2021). Obesity is a complex disease that occurs when an individual's weight is higher than standard height. Obesity affects children and adults both. Poor diet, fast food consumption, genetics, high BMR, physiological conditions etc. are the major reasons of obesity. While BMI can suffice as a screening tool for obesity, it is insufficient for diagnosis since it is not a direct measure of adipose tissue mass. Clinical confirmation is required to assure that elevated BMI values are indicative of excess adiposity. Obesity-associated conditions are manifold; however, even modest weight reduction may enable patients to reduce their risk for CVD, diabetes, obstructive sleep apnea (OSA), and hypertension among much other comorbidity. Management of obesity may include healthy eating plan, regular exercise and physical activity and changing habits or behaviors etc. Along with nutrition, physical activity and medication, behavior is a major pillar of weight management. Self- monitoring is a key element in any

successful behavioral weight-loss program.

**Keywords:** Obesity, BMR, BMI, nutrition, treatment

## Introduction

India is a developing country and according to the Census of India (2011) its population is 1,21,08,54,977. With socio-demographic and nutrition transition, non-communicable disease are the most important cause of morbidity and mortality throughout the world and also in India (Meshram I. *et al.*, 2022). Ritchie and Roser, (2017) reported that obesity is one of the leading risk factors for premature death. Eight percent of global deaths were attributed to obesity in 2017. According to NFHS-5 (2019-2020) report the prevalence of overweight and obesity has increased in the most states/UTs in India as compared to NFHS-4 (2015- 2016). At national level, it increases from 21 percent to 24 percent among women and 19 percent to 23 percent among men (MHFW, 2021). Ritchie and Roser, (2017) mentioned that 13 percent of adults in the world are obese and 39 percent of adults in the world are overweight.

## Classification Of Obesity On The Basis Of Body Mass Index (BMI)

WHO classifies obesity on the basis of body mass index (BMI). BMI is a tool to estimate and screen for overweight and obesity in adults and children (Table 1). BMI is defined as weight in kilograms divided by height in meters squared. BMI is related to the amount of fat in the body (NIDDK, 2021).

**Table 1: BMI of Adults Ages 20 and Older**

<b>BMI</b>	<b>Classification</b>
Less than 18.5	Underweight
18.5 to 24.9	Normal, or healthy weight
25 to 29.9	Overweight
30 to <35	Class 1 Obesity
35 to <40	Class 2 obesity
BMI of 40 or higher	Class 3 obesity or severe obesity

*Source: (CDC, 2022)*

## BMI percentile for Children and Teens

**Table 2: Percentile Range of BMI as per Weight Status Category**

Weight Status Category	Percentile Range
Underweight	Less than the 5th percentile
Healthy weight	5th percentile to less than the 85th percentile
Overweight	85th percentile to less than the 95th percentile
Obesity	Equal to or greater than the 95th percentile

*Source: (CDC, 2022)*

The BMI for age percentile growth charts are the most commonly used indicator to measure the size and growth patterns of children and teens. BMI for age weight status categories and corresponding percentiles were based on expert committee recommendations and are shown in the following table (Table 2).

### **Causes Of Overweight/Obesity**

Obesity is a complex disease that occurs when an individual's weight is higher than standard height. Obesity affects children and adults both. Following factors contribute to excess in weight:

#### **1. Poor Diet**

The ecological model, as described by Davison *et al.* (2001), suggests that child risk factors for obesity include dietary intake, physical activity, and sedentary behavior. Review of the literature also investigates factors behind poor diet and offers numerous insights into how parental factors may impact on obesity in children (Patrick and Nicklas, 2005). Restriction of 'junk-food' is also associated with increased desire for unhealthy food and higher weight (Brich and Fisher, 1998).

#### **2. Fast Food Consumption**

Increased fast food consumption has been linked with obesity in the recent years. Many families, especially those with two parents working outside the home, opt for these places as they are often favored by their children and are both convenient and inexpensive (Niehoff, 2009).

#### **3. Genetics**

Genetics are one of the biggest factors examined as a cause of obesity. Some studies have found that BMI is 25-40 percent is heritable (Anderson and Butcher, 2006).

#### **4. Basal Metabolic Rate (BMR)**

Basal metabolic rate has also been studied as a possible cause of obesity. Basal metabolic rate, or metabolism, is the body's expenditure of energy for normal resting functions. Basal metabolic rate is accountable for 60 percent of total energy expenditure in sedentary adults. It has been hypothesized that obese individuals have lower basal metabolic rates. However, differences in basal metabolic rates are not likely to be responsible for the rising rates of obesity (Anderson and Butcher, 2006).

#### **5. Medical Reasons**

Diseases like Cushing's disease and thyroid under activity can lead to obesity. Polycystic ovary syndrome leading to insulin resistance may contribute to obesity as well. Some drugs can also result in rapid weight gain including steroids and antidepressants (Omer, 2020).

#### **6. Screening / Diagnosis**

While BMI can suffice as a screening tool for obesity, it is insufficient for diagnosis since it is not a direct measure of adipose tissue mass. Clinical confirmation is required to assure that elevated BMI values are indicative of excess adiposity. More importantly, BMI does not reflect the impact of adiposity on the health of the patient. Therefore, evaluation and diagnosis involves both an anthropometric component (e.g., BMI) and a clinical component that constitutes an assessment of the risk, presence, and severity of weight-related complications (Garvey, 2019).

### **Health Risk Of Overweight And Obesity**

Obesity is an increasing, global public health issue. Patients with obesity are at major risk for developing a range of comorbid conditions, including cardiovascular disease (CVD), gastrointestinal disorders, type 2 diabetes (T2D), joint and muscular disorders, respiratory problems, and psychological issues, which may significantly affect their daily lives as well as increasing mortality risks (Fruh, 2017). Obesity-associated conditions are manifold; however, even modest weight reduction may enable patients to reduce their risk for CVD, diabetes, obstructive sleep apnea (OSA), and hypertension among much other comorbidity (Cefalu et al., 2015).

### **Management Of Obesity**

Management of obesity may include healthy eating plan, regular exercise and physical activity and changing habits or behaviors etc. Along with nutrition, physical activity and medication, behavior is a major pillar of weight management. Weight management is influenced by physiological, psychological and environmental factors. Eating behavior of a person with increased body fat often reflects the imbalance of genetic, physiologic, psychological and environmental forces that promote weight gain or

resist weight reduction. Physical inactivity behavior due to fatigue, disinterest or any other health related problems is another cause that should be assessed for managing obesity (Freshwater M. *et al.* 2022). Supervision of lifestyle is an essential component of all weight loss strategies. Treatment goals focus on minimizing energy intake, optimizing diet quality and increasing energy expenditure (Markovic T.P. *et al.* 2022). Lifestyle changes over the long-term will likely improve the health of patients even in the absence of major weight loss (Hall and Kahan, 2018). Self-monitoring is a key element in any successful behavioral weight-loss program. Patients are asked to observe and record target behaviors. Self-monitoring tools include food diaries, physical activity logs, and weight records (McKinney L. *et al.* 2013). Taking a nutrition and physical activity history is an important step in helping overweight and obese patients identify and adapt healthier behaviors. National Heart, Lung and Blood Institute guidelines suggest that patients who want to lose weight reduce their caloric intake by 500 to 1,000 kcal per day to produce a weight loss of 1 to 2 lb (0.45 to 0.90 kg) per week (McKinney L. *et al.* 2013).

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# CHAPTER XXI

## QUALITY OF CANCER CARE - A STUDY TO MAKE IT MORE ACCESSIBLE AND AFFORDABLE

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### **Introduction**

Estimates indicate India's reported cancer incidence in 2022 to be 19 to 20 Lakh, whereas real incidence is 1.5 to 3 times higher than the reported cases.

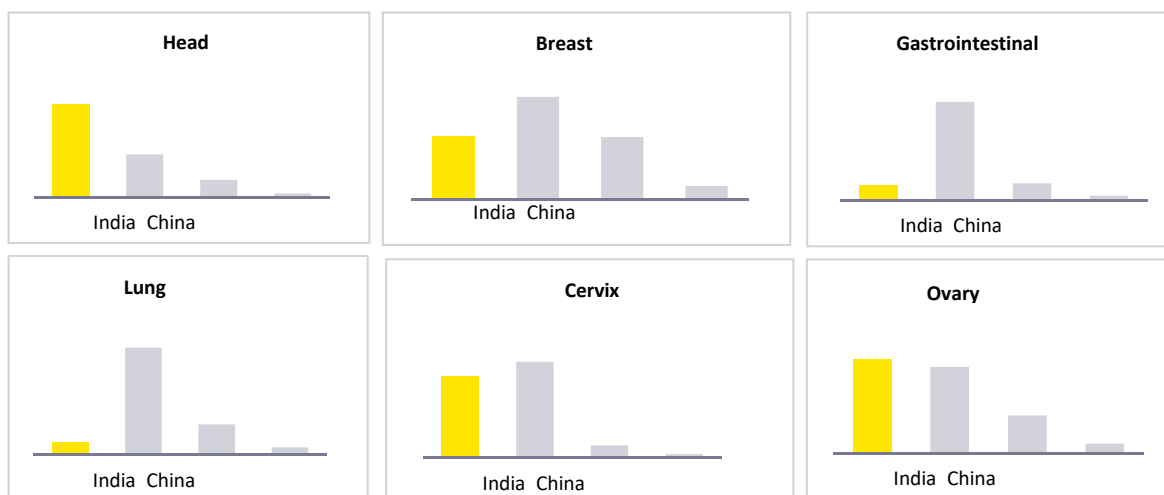
India faces significant challenge of a sizeable cancer incidence burden, which continues to grow further.

The 2020 WHO ranking on cancer burden in terms of new yearly cases being reported, ranked India at the third position after China and the US, respectively.

. Of the reported cases in India, head and neck, gastrointestinal and lung contribute to 50% of incidence among males and breast, cervix uteri and gastrointestinal organs contribute to 50% of incidence in case of females.

Among these, cancer of the head and neck are found to be progressing at a CAGR of 23%, prostate cancer at 19%, ovarian cancer at 11% and breast cancer at 8% which is faster than the overall growth rate of incidence.

**Chart A: 2020 Organ-wise Incidence**

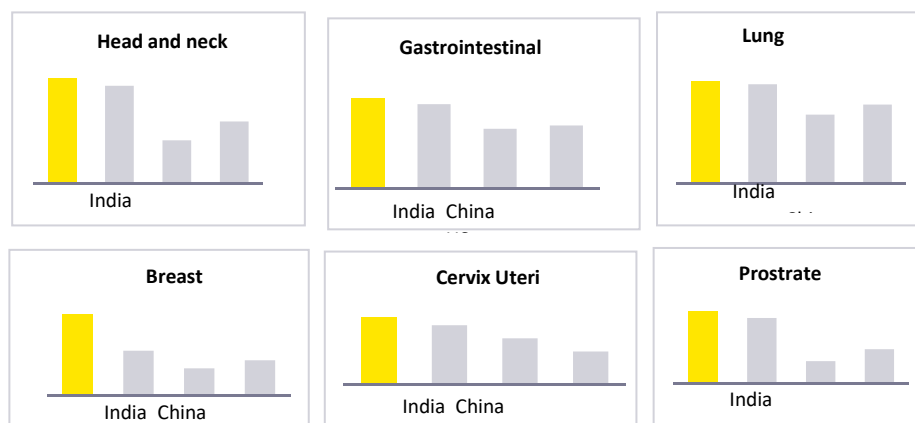


Source: SEER cancer statistics, Cancer research UK, Zeng et al 2021, NCRP Annual report 2020

## High Proportion Of Cases Continue To Be Detected At Late Stages For Major Cancer Types In India

The issue of high disease burden is compounded with late-stage detection caused mainly due to lack of awareness and low penetration of screening programs. India has a poor detection rate across major cancer sites with 29%, 15% and 33% of breast lung and cervical cancers being diagnosed in stages 1 and 2, respectively, which is significantly lesser than that in China, the UK and the US. The challenge of rising disease burden is further compounded by poor outcomes compared to global counterparts across all major organ types. While at one hand incidence is rising, deaths due to cancer has remained among the top 5 causes of deaths in India over the last decade. Estimates indicate that the total deaths due to cancer have been ~8 to 9 Lakh in 2020, causing the mortality to incidence ratio for different cancer types in India being among the poorest compared to global counterparts.

**Chart B: Mortality to Incidence ratio comparison across countries**



Source: NCRP Annual report 2020, Global Cancer Observatory, 2020

Six states, which represent 18% of India's population, have 23% share of the country's reported incidence burden and have the highest crude incidence rates.

13 out of the 17 states covered by population-based cancer registries (PBCRs), exhibit a rising cancer burden. Kerala, Mizoram, Tamil Nadu, Karnataka, Punjab, and Assam report the highest overall crude incidence rates of cancers (above 130 cases per Lakh population).

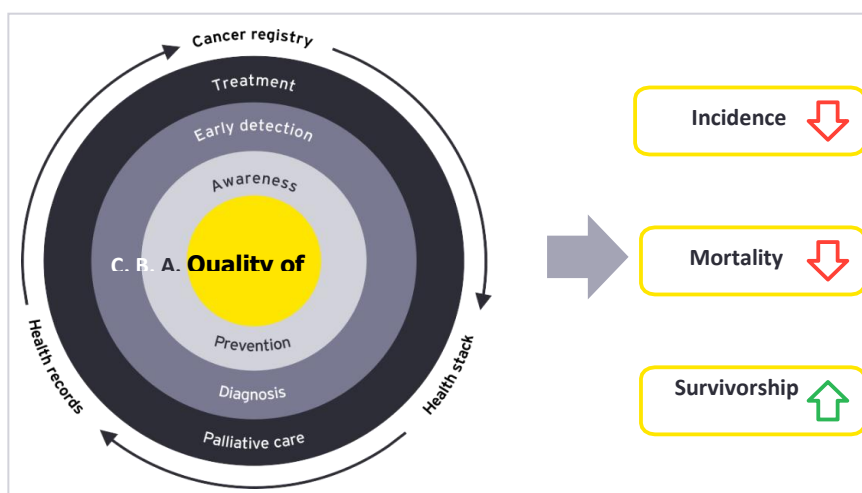
High burden of cancer incidence in India is resulting in a high economic burden on account of productivity losses and premature mortality.

Based on reported cancer incidence and mortality across age groups and years of potential productive life lost (YPPLL) due to the same, estimates indicate that the economic burden in terms of GDP losses is in the range of US\$11B. (0.4% of national GDP) in 2020. The same is projected to increase to US\$36B to US\$40B by 2030, driven by a projected increase in mortality (considering increasing cancer incidence partly offset by an improvement in mortality to incidence ratio), improvement in life expectancy and increase in GDP per capita.

Given the current state of rising cancer disease burden and sub-optimal quality of outcomes, there is a significant need to understand the current challenges and tailor make interventions across the different stages of disease management with a deep focus on:

- A. Awareness and prevention - Modifying exposure to risk factors that potentially lead to cancer
- B. Detection and diagnosis - Ensuring early detection and accurate staging of the disease
- C. Treatment including palliative care - Driving multidisciplinary approach to treatment with focus on affordability, equitable access, quality of outcomes and palliative care

**Figure A: Cancer control framework**



While the above represent core levers to drive cancer control by reducing incidence and improving quality of outcomes, expanding cancer registries and health information systems for collecting standardized and comprehensive data for informed and evidence-based policy decisions and research will form the foundation for enabling the levers to drive change.

## **A. Awareness And Prevention**

### **Awareness**

**Knowledge:** Awareness landscape in India is dominated by tobacco and tobacco-related cancers. Knowledge of other common cancers such as cervical is low.

**Attitude:** Few people in India seemed to be concerned about cancer compared to other countries, implying a general attitude of indifference towards cancer. As per the UICC global survey, only 43% respondents in India indicated that they were concerned or somewhat concerned about developing cancer in their lifetime compared to a global average of 58%.

**Practice:** Uptake of screening for breast, cervical and oral cancer and HPV vaccination is very low despite moderate levels of awareness.

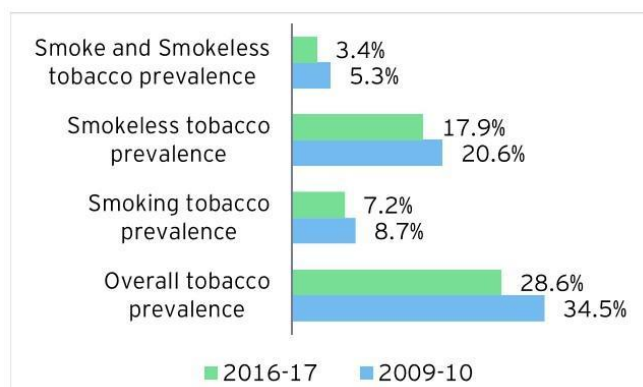
### **Prevention**

Primary prevention involves limiting exposure to carcinogenic risk factors. While there are several carcinogenic risk factors, modifiable risk factors such as tobacco, alcohol, obesity, infectious and environmental factors are amenable to prevention. While India undertook several policy measures to reduce exposure to risk factors, there is still significant progress required.

**Enforcement of tobacco restrictions:** Tobacco is associated with a large number of cancers such as lip, tongue, mouth, oropharynx, larynx, esophagus, lung, urinary bladder all of which together contribute to high mortality at present. Despite relatively high awareness compared to other risk factors, tobacco usage continues to be a major public health challenge in India.

While the government undertook measures for tobacco control under the aegis of the National Tobacco Control Programme and implemented the Cigarettes and Other Tobacco Products Act, the current prevalence of adult tobacco users continues to remain at 28.6% which is higher than the global prevalence of 23.4%. As per NFHS-5 (2019-20), % of men > 15 years of age using tobacco was > 40% for all north-eastern states, Madhya Pradesh, West Bengal and Gujarat which is significantly alarming.

**Chart D: Tobacco prevalence among adults in India**



*Source: GATS 2009-10 and GATS 2016-17*

## **Enabling Inclusion Of HPV Vaccination In The National Immunisation Program**

Infectious risk factor mainly includes HPV causing cervical cancer, which is easily preventable through vaccination. India has made remarkable progress through the launch of indigenously developed HPV vaccine which is priced 10 times lower than the erstwhile available vaccines in the market.

Despite achieving major milestones in indigenous HPV vaccine launch, India is still to include the HPV vaccine as part of its Universal Immunization Program. As of October 2019, 100 countries around the world had already introduced the HPV vaccine as part of their national immunization schedule. Given the decade-old debate around the efficacy and safety of the HPV vaccine in India, there is a need to conduct regular studies to establish evidence for the same. There is also a continuous need to ensure accessibility to hygienic toilets for all women.

Encouraging healthy behaviors: Obesity is associated with several cancers such as breast, colorectal, esophagus, stomach, etc. which contribute to high incidence and mortality. Nearly one in four Indians is obese as per the NFHS-5. Similarly, alcohol is another major risk factor which is associated with several cancers such as liver, breast, stomach, larynx, etc.

Almost one in five men consume alcohol in India with an increase in per capita consumption of alcohol from 2.3 liters in 2005 to 5.5 liters in 2018.

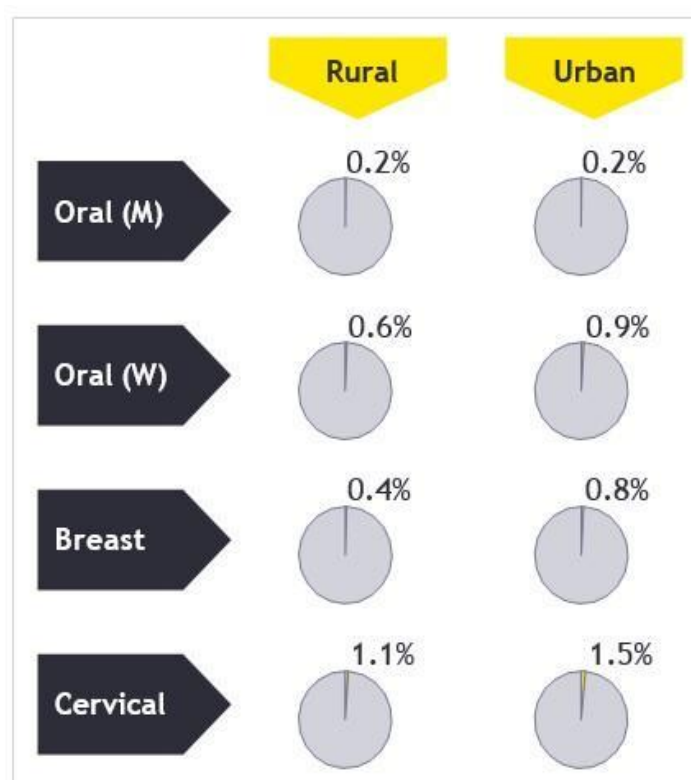
## **B. Detection And Diagnosis**

### **Screening**

Despite the proven benefits of early identification for downstaging the disease as well as in achieving a reduction in mortality and morbidity, screening penetration of key cancers in India is very low: Across focus cancers being screened under the NPCDCS programme, screening coverage is less than

5% of population which is negligible when compared with global peers. Oral cancer has the lowest screening coverage at 0.2% of the population. Capacity constraints in terms of physical infrastructure and workforce, lack of training of the methods for cancer screening among healthcare workers and deficiencies in referral mechanism are key roadblocks to the success of the programme. Additionally, lack of data capture to maintain longitudinal health records of population right from screening stage and ensuring tracking and follow up with patients for effective referrals is a key deterrent in the expansion and penetration of screening programs.

**Chart E: Screening coverage in India by population % (NFHS-5)**



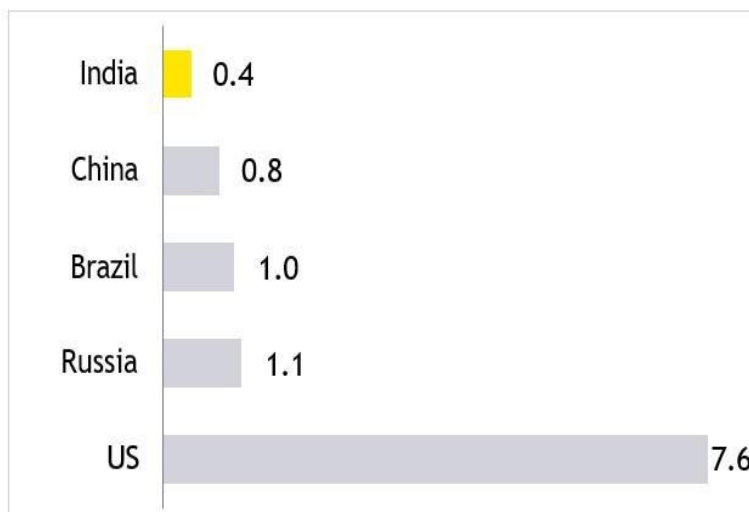
## C. Treatment Including Palliative Care

### Access To Treatment

Significant geographic skew in the presence of comprehensive cancer centers in the country:

Only ~175 districts in the country covering 40-45% of the population have Comprehensive Cancer Centres (CCCs)<sup>44</sup>. Of the 470 to 480 CCCs available in the country ~40% are concentrated in metros and state capitals. Severe gap continues in access to radiotherapy (RT) treatment in the country with RT per million population of 0.4 vis-à-vis WHO recommendation of 1 RT per million population: Penetration of RT equipment is low with ~640 installations against the requirement of ~1,400 to 1,500 in the country.

**Chart F: Penetration of RT equipment per million population across countries**

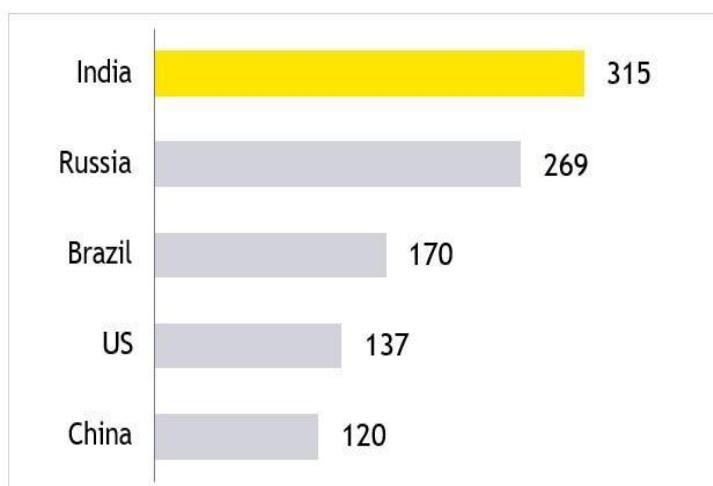


Source: 'World population', worldpopulationreview.com, 'Directory of radiotherapy centres', Dirac.iaea.org.

Availability of screening, diagnostic and treatment planning equipment is low in India: Penetration of PET- CT is low with ~360 installations against the requirement of ~480 in the country. Also, there are ~5 CT scanning machines per million population compared to ~40 in high-income countries and ~13 in upper middle-income countries.

Access to specialized care of oncologists is significantly constrained in India with incidence per clinical oncologist (medical and radiation oncologist) at 315 compared to 120 in China and 137 in the US: India requires 2,500 to 3,000 additional medical oncologists and 700 to 800 surgical oncologists to cater to current incidence while radiation oncologists are adequate.

**Chart G: Incidence per oncologist across countries**



Source: 'Global survey of clinical oncology workforce', *Journal of Global Oncology*, 2018



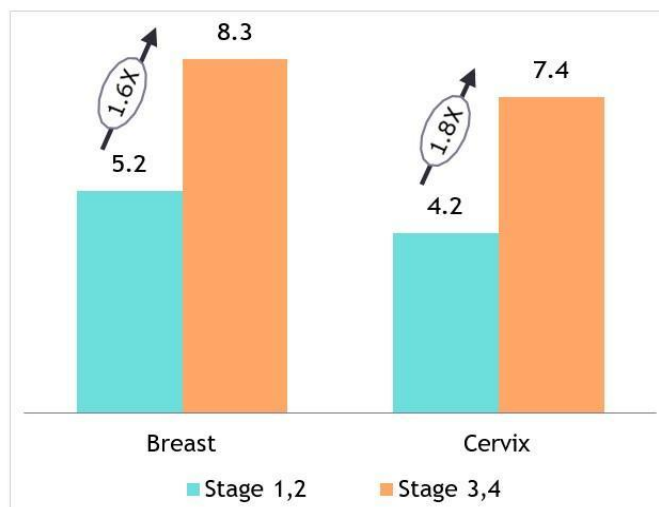
Only 1% to 2% population who need palliative care have access to it in India compared to a global average of 14%: Most states in the country do not have an enabling legislation and policy structure that supports integration of palliative care with public and private healthcare set ups treating cancer patients.

### Affordability Of Treatment

Financial burden of cancer care treatment is the highest compared to other diseases. Treatment cost for cancer care is financially prohibitive and is almost 3x that of other non-communicable diseases (NCD). Additionally, treatment cost has been increasing with cost of a single cancer hospitalization (in public or private facility) exceeding average annual expenditure of 80% population in 2017 vis-à-vis 60% population in 2014.

Cost of complete baseline multi-modal treatment varies significantly depending on organ and stage of detection: For common cancers such as breast, cervix, ovary and gall bladder cost of treatment in mid-tier private hospitals escalates by 60 to 75% between Stage 1/2 vs. Stage 3/4 patients. The cost escalates further with adoption of advanced therapies.

**Chart H: Baseline cost of comprehensive cancer treatment (INR Lakh)**



Cost of complete baseline multi-modal treatment varies significantly depending on organ and stage of detection: For common cancers such as breast, cervix, ovary and gall bladder cost of treatment in mid-tier private hospitals escalates by 60 to 75% between Stage 1/2 vs. Stage 3/4 patients. The cost escalates further with adoption of advanced therapies.

With an increase in population coverage under some form of insurance/ government sponsored health coverage programs to ~54%, there is a need to ensure adequate coverage under these programs based on uniform standards of care that offers right treatment and quality of outcomes for patients: Variation among state government and PMJAY schemes is to the extent of 40-275% for select surgical

and medical procedures with key schemes also not covering diagnostic interventions/therapies such as PET-CT, biopsies, genomics, targeted therapy and immunotherapy.

Additionally, high level study of cashless claims made by patients covered under retail health insurance policies indicates 25 to 30% of their expenses are still made out-of-pocket, indicating the need to ensure design of comprehensive care plans based on uniform standards of care.

The complex challenges of the cancer control landscape in India are further worsened by the lack of comprehensive data w.r.t to incidence and mortality which is representative of the Indian population. The population and hospital-based cancer registries set up four decades ago, have so far been able to cover only 10% of the population of the country with several states such as Uttar Pradesh, Madhya Pradesh, Andhra Pradesh, Rajasthan, Telangana and Orissa having inadequate presence and penetration of registries.

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# CHAPTER XXII

## NEW EDUCATION POLICY - EFFECTS ON INDIA'S EDUCATION SYSTEM

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### **Abstract**

In 1986 and 1992, the National Policy on Education underwent revisions. Since then, a number of adjustments have been made, necessitating a modification of the Policy. Large numbers of youngsters in India skipped school at the beginning of the 1990s. India was a crucial example for funders because of global aspirations to achieve education for all (EFA). The National Policy on Education (NPE), 1986, which had been in effect for 34 years, was replaced with the NEP 2020, the first education policy of the twenty-first century. This policy, which is based on the fundamental pillars of Access, Equity, Quality, Affordability, and Accountability, is in line with the 2030 Agenda for Sustainable Development and seeks to transform India into a thriving knowledge society and a global knowledge superpower by making school and college education more holistic, flexible, multidisciplinary, appropriate for the needs of the 21st century, and focused on bringing out each student's individual talents. NEP 2020 places a strong emphasis on ensuring that everyone has access to education at every level, from pre-school to secondary. India under pressure to accept funding for basic education, reluctantly complied. Understanding the New Educational Policy of 2020's awareness, perception, and effects, as well as learning about the current state of the Educational Policy, are the paper's main goals. These objectives will help readers understand the practical ramifications of providing sufficient trained staff and resources for education.

**Keywords:** Education, NEP 2020, Sustainable Development, Quality.

## Introduction

The National Mission on Foundational Literacy and Numeracy is to be established by MHRD in accordance with NEP 2020, which recognises Foundational Literacy and Numeracy as an urgent and essential precursor to learning. In order to achieve universal basic reading and numeracy for all students by grade 3 by 2025, each state will create an implementation plan. It is necessary to have a national policy for book promotion. By providing students with the important 21st century skills, reducing the amount of information covered in the classroom to focus more on critical thinking and vital learning, and emphasising experiential learning, school curriculum and pedagogy will work to educate students holistically. The academic options and degree of freedom for students will rise. There will be no rigid separations between arts and sciences, between curricular and extracurricular activities, between vocational and academic streams. It is demonstrated that Indian education policy goals remained self-determined despite subsequent donor engagement being significant and having an impact on several elements of administration and policy execution. The Government of India was successful in employing outside resources and knowledge in ways that fit its own needs while minimising outside influence on policy making, while not being able to guarantee universal education for all of its students. The study demonstrates that the formation of the New Education Policy has both big benefits and drawbacks, with education being the main component dominating in today's society.

Support for infrastructure, innovative programmes to reintegrate dropouts into society, tracking of students' academic progress, facilitating multiple routes to learning using both formal and informal learning methods, collaboration between counsellors or social workers with the appropriate training, open learning for classes 3, 5, and 8 through NIOS and State Open Schools, secondary education programmes equating to Grades 10 and 12, vocational training, and adult literacy programmes Under NEP 2020, around 2 crore out-of-school children will be reintegrated into society. The 10+2 structure of school curriculum is to be replaced by a 5+3+3+4 curricular framework that corresponds to ages 3–8, 8–11, 11–14, and 14–18 years respectively, with a focus on Early Childhood Care and Education.

No child should be denied the chance to study and succeed due to their background or circumstances of birth, according to NEP 2020. A special focus will be placed on Socially and Economically Disadvantaged Groups (SEDGs), which include those with disabilities and gender, sociocultural, and regional identities.

This involves establishing a gender inclusion fund and special education zones for underprivileged communities. From early education to higher education, children with disabilities will be able to fully participate in the regular educational process with the assistance of teachers who have received cross-disability training, resource centers, accommodations, assistive devices, suitable technology-based tools, and other support mechanisms tailored to their needs. Every state and district will be urged to start 'Bal

Bhavans', a unique daytime boarding school, so that students may engage in play, profession, and art-related activities. For kids up to the age of 8, NCERT will create the National Curricular and Pedagogical Framework for Early Childhood Care and Education (NCPFECCE). A greatly enlarged and enhanced network of institutions, including Anganwadis and preschools, will provide ECCE delivery. Teachers and Anganwadi staff will be educated in ECCE methodology and curriculum. The Ministries of HRD, Women and Child Development (WCD), Health and Family Welfare (HFW), and Tribal Affairs will collaborate to design and implement ECCE.

## **Literature Review**

The various merits of the higher educational policies in the NEP, 2020 such as the Student Centric Model, Competency based Continuous Evaluation System, Research and Innovation focused, Improved STEM model of the HE curriculum, Merit based Student admissions, Faculty Selection and Promotion and the researcher also further suggested few ideas for improvements. (Aithal, P. S., and Aithal, Shubhrajyotsna 2020) At the university/HEI level, no single stream/discipline university shall remain in existence but transformed into multidisciplinary, holistic delivery systems. A single nomenclature, 'University', shall prevail and also criticised about the implementation by Strengthening Central Advisory Board of Education, Redesignation of MHRD as Ministry of Education and Financial and other infrastructural support. (Darolia, R., Koedel, C., Main, J. B., Ndashimye, J. F., and Yan, J. 2020) The STEM enrollment's access to high school math and science course's effects were identified by plausibly exogenous variation in course offerings. (Ball, 2019) The Australian education policy as a case of global educational reform activity covering a range of points which exemplifies aspects of current assemblage of global education reform activity. The study considers assessment policies and contradictions between learning and assessments and implications of that for professional development of teachers. (Mridul Madhav Panditrao., and Minnu Mridul Panditrao 2020). The Boost of GER through Autonomy to the Private Sector. Quality education for everyone is one of the major goals of the United Nations Sustainable Development Goal. The private sector should give 20% free seats, 30% half fee scholarships so that many poor but merit-based students get free or discounted fee study opportunities which is based on the NEP-2020. (Aithal, P. S. and Suresh Kumar, P.M. 2016). The free education at THE level will boost GER of higher education in the country by allocating free merit-based seats for merit-based students which is an important highlight of NEP-2020. (Singh, J. D. 2011). The Accreditation Council. The NEP-2020 has established the Control of Quality through Biennial Accreditation Process. The quality of education is currently monitored by the National Assessment and Accreditation Council and awards the graded accreditations to HEIs. This accreditation timeframe is five years. Due to the short timeframe reason, HEIs are not continuously monitored for their accreditation status. (Aithal, P. S., Shailashree, V. T. and Suresh Kumar, P. M. 2016). For better quality work and performance it is mandatory to opt biennial accreditation. To make accreditation status more serious and effective for continuous improvement, NEP-

2020 has simplified it and made it mandatory as a biennial accreditation process. (Ulker, N., and Bakioglu, A. 2019). The use of InformationCommunication and Computation Technologies (ICCT) including Education technology, Internet technology, Artificial intelligence, Virtual reality, etc are very essential in effective implementation of education in the 21st century. (Aithal, P. S., and Shubhrajyotsna Aithal, 2015). The characteristics of the ideal education system and also to enhance GER by opting for the latest technologies to help in the planning, design offering effective online education to realize the importance. (Aithal, P. S. and Shubhrajyotsna Aithal, 2016). Due to improved tech generations, technology driven education is going to replace classroom based education and the policies of NEP-2020. (Suresh Kumar, P. M. and Aithal, P. S. 2016). It is expected that during the 21st century that laying the foundation for online based but also supports classroom based education system by adding more research components in it. (Ossiannilsson, E., Altinay, F., and Altinay, Z. 2016). The Integrated Controlling and Monitoring System of the educational sector and institutions both primary and higher education. The implementation process is divided into seven stages. As per NEP-2020, the first 10 years is the implementation period and the next 10 years is the operational period. (National Education Policy 2020). The most important for education leaders are Self-contribution to research and innovation. New researchers get inspiration by seeing the contribution of leaders to perform better thus Education Leaders should be RoleModels. (Aithal P. S. 2018). The HEIs should cultivate role models in this sector who should be super performers to the IPR of the organization so that the organization can prove that higher contribution is possible. (Aithal, P. S., 2016). The Professors who hold administrative positions are also expected to research and publish in their leisure period to be role models to young researchers. (Speizer, J. J. 1981). The importance of student admission based on merit by giving importance to social justice. He also comments that the quality of higher education and research can be improved only if all faculty selections and promotions are merit based. (Sabic-El-Rayess, A. 2016). All kinds of reservations and lobbies should be curbed at individual institution level by means of appointing highly qualified and proven leaders as members of the Board of Governors. (Nyden, P. 2003). The affirmative action based appointments is not a solution and the reservation system should be diminishing rather than expanding to more people as it negatively impacts the meritorious students and the fair opportunities are being questioned. (Gopalan, 2020). The Merit based Student admissions, Faculty Selection and Promotion also stresses that merit-based appointments are essential at all policy formulating and regulating levels of HE Councils. (Aithal, P. S. 2015). The Higher education institutions which have the autonomy to do innovations in deciding the courses, curriculum, pedagogy, examination and evaluation could improve the quality of education offered by them. (Benjamin, E. 1994). In the university affiliation system, affiliated institutions do not have any autonomy in teaching-learning and evaluation systems thereby the quality and motivation of both students and faculty members get affected. (Sankaran, K., and Joshi, G. V.2016). The current teacher centric model where the teachers decide the subjects, curriculum, evaluation, etc will be replaced by the student centric model where the student gets right to decide the subject he has to study from the

institution. (Simão, A. M. V., and Flores, M. A. 2010).

## **Results**

The NEP presents suggestions for revitalising and boosting faculty capacity through recruiting that is transparent, independent, and clearly defined as well as through flexibility in curriculum and pedagogy creation, rewards for achievement, and advancement into institutional leadership. Faculty who fails to uphold fundamental standards will face consequences The NCTE will cooperate with NCERT to develop a brand-new, comprehensive National Curriculum Framework for Teacher Education, or NCFTE 2021. By 2030, a 4-year integrated B.Ed degree will be the prerequisite for teaching. Strict action will be taken against unreliable independent institutions for teacher education (TEIs).

This will be developed to significantly contribute to raising GER. To guarantee it is on par with the finest quality in-class programmes, steps will be taken such as providing online courses and digital repositories, financing for research, bettering student services, credit-based recognition of MOOCs, etc. In light of the recent increase in epidemics and pandemics, a thorough set of recommendations for promoting online education has been covered in order to ensure preparedness with alternative modes of high-quality education whenever and wherever traditional and in-person modes of education are not possible. The MHRD will establish a specialised unit to coordinate the development of digital infrastructure, digital content, and capacity building to meet the demands of both school and higher education in terms of e-education.

## **Conclusions**

NEP suggests creating an Indian Institute of Translation and Interpretation (IITI), National Institute (or Institutes) for Pali, Persian, and Prakrit, strengthening Sanskrit and all language departments in HEIs, and using mother tongue/local language as a medium of instruction in more HEI programmes in order to ensure the preservation, growth, and vitality of all Indian languages.

Internationalization of education will be supported by institutional partnerships, professor and student mobility, and allowing premier universities from across the world to establish campuses in our nation.

The system of higher education will include all forms of professional education. Separate technical universities, medical schools, law schools, and agricultural universities, among others, will strive to develop into multidisciplinary institutions. A 100% literacy rate for adults and adolescents is the policy's goal. Together, the Center and the States will expand public investment in the education sector to, at the earliest, 6% of GDP(Singh, Professor Dinesh (29 July 2020).

- By 2030, secondary education will be universal, in line with SDG 4
- By 2025, the National Mission will have achieved the goals of foundational learning and numeracy
- By 2025, achieve foundational learning and numeracy skills through the national mission
- Bring Back 2 Cr Out of School Children
- Teachers to be prepared for assessment reforms by 2023
- Inclusive and Equitable Education System by 2030
- Board Exams to test core concepts and application of knowledge
- Every Child will come out of School adept in at least one Skill
- Common Standards of Learning in Public and Private Schools

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# CHAPTER XXIII

## THE RELATIONSHIP AMONG SOCIO-ECONOMIC FACTORS AND FINANCIAL LITERACY OF HOUSEHOLDS - AN EMPIRICAL STUDY

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### **Abstract**

Financial stability and wellbeing of a particular family depend on the level of awareness and literacy about the financial products. It also depends upon the usage of skills of individuals in the family to manage the expenditure according to the income. If a family spends the finances according to the income which they collectively earn, then there is a possibility of emergence of any saving pattern. The situation is getting more complicated due to new technological innovations. In the Covid times, government is also focussing more on digitising the financial system, therefore financial institutions emphasised in introduction of internet banking, plastic cards, no touch payments, wave technology in the cards etc. Hence, parent's education, background, usage of financial institutions, products, income and expenditure of a family become utmost important to study whether families are enough capable or not to deal with the changes of the financial system. This paper is an attempt to study the financial pattern and socio-economic factors such as qualification, background, income and expenditure of families of college going students. The study found that most of the families are spending according to their income levels and respondents are relatively aware about the savings. High percentage of usage of financial services was

also observed. This may be due to high literacy rate among parents of students and were also have more savings to invest in different financial plans.

**Keywords:** Financial Literacy, Financial Knowledge, Saving Pattern, College Students, Hoshiarpur, Punjab

## **Introduction**

The financial education is a fundamental for financial contentment of individuals as well as for financial steadiness of a nation. Nowadays, financial marketplaces are becoming risky as present and potential consumers are confronted with wide ranging financial products and financial services. The perplex choices and the astute advertising often confuse the consumers to make wrong decisions. Emerging technological innovations make the situation more complicated for consumers. All these factors increase the liability and risk of household consumers in making financial decisions. It is much needed to inculcate the basic financial understanding, knowledge and skills in all individuals so that they can enable themselves to manoeuvre the different financial products and services and selecting products which are best suited to their resources and needs. The shifting of defined pension scheme to contributory pension plans reallocates the investment risk from the government and employers to the individuals. Consequently, the individuals are made more responsible for deciding the fund contribution, investment planning and risk management for their retirement security.

Individuals all over the world enter in financial transactions on a daily basis. They make routine financial decisions about earning, saving, spending, investing, borrowing and budgeting. Occasionally, individuals are also required to decide about mortgage, owning a house, purchasing a vehicle, children's education, children's marriage and long-term investments. People having better money management skills are more likely to make informed financial decisions in such circumstances. At the same time, there is an open doorway to a range of credit services and products to a large population. These opportunities tend to accelerate riskiness of decisions when the consumers are unfamiliar with the terms and conditions associated with these products. Easy availability of credit instruments tempts the people to take the benefit of latest products without knowing the severe default consequences that could result in financial disasters. Moreover, the cost of financial ignorance is huge that may create financial unrest for households and pose a threat to the financial stability of the country if considerable degree of consumer participation is there. In such circumstances, it becomes essential for the individuals to be well versed with financial concepts and be sufficiently financially literate in order to make responsible financial decisions. The existing research literature highlighted low degree of financial awareness and literacy among people across nations. The outcomes of low financial literacy viz. low levels of savings, no credit management and lack of financial planning are evident from the existing surveys. The long-term implications of uninformed financial decisions and lower financial literacy of people have prompted the

government to take initiatives for improving the financial knowledge, awareness, skills and attitude of the people around the world. The present study is an effort to analyse the impact of parent's socio-economic background on the usage of financial services and level of their financial literacy.

## **Review Of Literature**

**Danes and Hira** (1987) conducted a survey on college students to evaluate their knowledge regarding insurance plans, credit cards, record keeping personal loan schemes and overall financial management. The study revealed that male students are more financially literate than female students, married students are more financially literate than unmarried students, and students belong to upper-class have more financial knowledge than lower class students. It was concluded that college students carry a low financial knowledge level.

**Hira et al.** (1989) stated that — "Financial literacy can result into managing effectively the goals of life and efficient utilization of monetary resources that can result into financial well-being and which lead to life satisfaction."

In early 1990s, many people warned about sizeable hike in personal debt levels including Mannion (1992). In 1994, to help the society The NatWest Group set up a charitable fund. Investigation of financial literacy was one of its projects with an aim to include financial literacy and education programs into the curriculum of schools (Schagen and Lines, 1996). Later on, a new financial literacy scheme was sponsored by NatWest for schools (Edwards, 1997, p. X).

**Schagen and Lines** (1996) conducted a survey to examine financial literacy of the general population focusing on four groups. The main focus was students doing higher education and not staying at their homes, young people doing the jobs or training, families availing subsidised housing and single parents. The study found that most of the respondents were sure and confident about their financial transactions. The students and single parents were found to be exception to this. These exceptions were significant because of the uprising debt and inability of university students to pay their fees. (Graduate Prospects, 2005).

Several researchers have proposed self-explanatory variables which were relevant to study the credit card using behaviour of college students. The variables which have been used to explain credit card behaviour were gender (Armstrong and Craven, 1993), marital status (Hayhoe et al., 2000), income (Zhou and Su, 2000), perspectives toward credit (Hayhoe et al., 1999; Roberts and Jones, 2001) and parental involvement (Palmer et al., 2001). The study further revealed that higher balances in the credit card or a greater number of credit cards were found with female students with positive frame of mind towards credit, higher income level individuals and those who have support as their credit cards were co-signed by parents.

**Vitt et al.** (2000) stated that one's capability to read, administer, analyse and his communication about the condition of personal finance that affect personal well-being is known as financial literacy. It includes one's financial choices, discussing financial problems without any hesitation, planning for the future and efficiently responding to life events which have impact on every day financial decisions.

**Jariwala** (2013), in her "research on financial literacy in Gujarat reveals that financial education is very important for an individual as it helps in taking better financial decision in terms of selecting the investment avenues according to their needs, gives them more realistic opportunity in terms of investment which results into greater financial wellness of an individual. The study also reveals the importance of knowing the financial parameters in the nation's development. The study also suggested the relationship between decisions related to financial education and financial investment. Financial literacy facilitates the masses to prioritize their financial objectives and makes them aware of the benefits and risks associated with financial products. This study also focuses on the point that financial literacy can change India as nation of savers to nation of investors"

**Kumar and Anees** (2013) gave the suggestions to improve financial literacy. Researcher suggested that by including the relevant study material based on financial literacy in general curriculum of the schools and colleges may help increasing the literacy rate. The study also advocated to include the study of all the sociological factors in the curriculum that are important in financial decision making. India should also emphasize on bettering the financial wellness of individuals by focusing on the youth investors.

**Medury and Bhushan** (2013) observed that the overall levels of financial literacy among the respondents are not growing which depicts that there is lack of awareness among people about financial issues. The government has to take some measures to increase awareness about financial matters. They study also revealed the factor, namely, education, income, gender, nature of work place environment and kind of work that effects literacy levels whereas it was not affected by age and other geographic region.

## **Objective Of The Research**

To study socio-economic factors and saving pattern of student's family.

## **Methodology**

This study is constricted to Hoshiarpur district of Punjab. The study is based on both primary and secondary data. Data collected from various published reports of Punjab state has been used as secondary data. For achieving the objectives, primary data have been collected with the help of structured questionnaire. The primary data were collected during the period March-April, 2021. The students were

asked about the social economic profile of their parents and responses were recorded and analysed using descriptive analysis techniques in SPSS version 19.

## Discussions

Table 1 shows the social economic profile of student's parents. Out of 231 responses (100 per cent), 155 (67.1 per cent) belonged to urban area and 76 (32.9 per cent) were from rural area. As far as highest qualification of their parents (either father or mother) is concerned, 5.19 per cent of the respondent's parent were only educated up to primary level, 22.51 per cent of the parents were educated up to secondary level, 31.16 per cent were qualified up to senior secondary, 30.74 per cent and 10.39 per cent of the parents were graduate and post graduate respectively. Average monthly income of respondent's family when analysed, most of the respondents (34.20 per cent) declared that their family earns between Rs. 5000 to 15000, 27.27 per cent of the respondents (63 in number) had monthly family income of more than Rs. 35000, 18.18 per cent, 14.29 per cent and 6.06 per cent of the respondents had family income in the range of Rs. 15001-25000, Rs. 25001-35000 and less than Rs. 5000 respectively. Table 1 also shows the monthly expenditure of the respondent's family. More than 55 per cent of the respondents spend less than Rs.15000 (monthly). Around 27% of the respondents had income more than Rs. 35000 but out of these only 11.26 per cent spends more than Rs. 35,000. This shows that families of the respondents are spending according to their income and therefore manages to save their earning also.

**Table 1**

### **Socio-Economic profile of Student's Parents**

<b>S. No</b>	<b>Characteristic</b>		<b>Number</b>	<b>Percentage</b>
1	Residence	Urban	155	67.1
		Rural	76	32.9
2	Highest Education	Primary	12	5.19
		Secondary	52	22.51
		Senior Secondary	72	31.16
		Graduation	71	30.74
		Post- Graduation	24	10.39
3	Monthly Family Income	Less than 5000	14	6.06
		5001-15000	79	34.20
		15001-25000	42	18.18

		25001-35000	33	14.29
		Above 35000	63	27.27
4	Monthly Family Expenditure	Less than 5000	30	12.99
		5001-15000	100	43.29
		15001-25000	52	22.51
		25001-35000	23	9.96
		Above 35000	26	11.26

*Source: Primary Data*

## Financial Services Availed By Parents Of Students

Table 2 shows the type of financial services that were availed by the parents of students. The question was checklist type and multiple responses were received from the respondents.

**Table 2**

### Financial Services availed by parents of respondents

S. No	Service Type	Number of Responses	Percentage
	Bank Account	226	97.84
	Demat Account	24	10.39
	Life Insurance	103	44.59
	Health Insurance	72	31.17
	Motor Insurance	95	41.13
	Mutual Funds	23	9.96

*\*Multiple Responses out of 231*

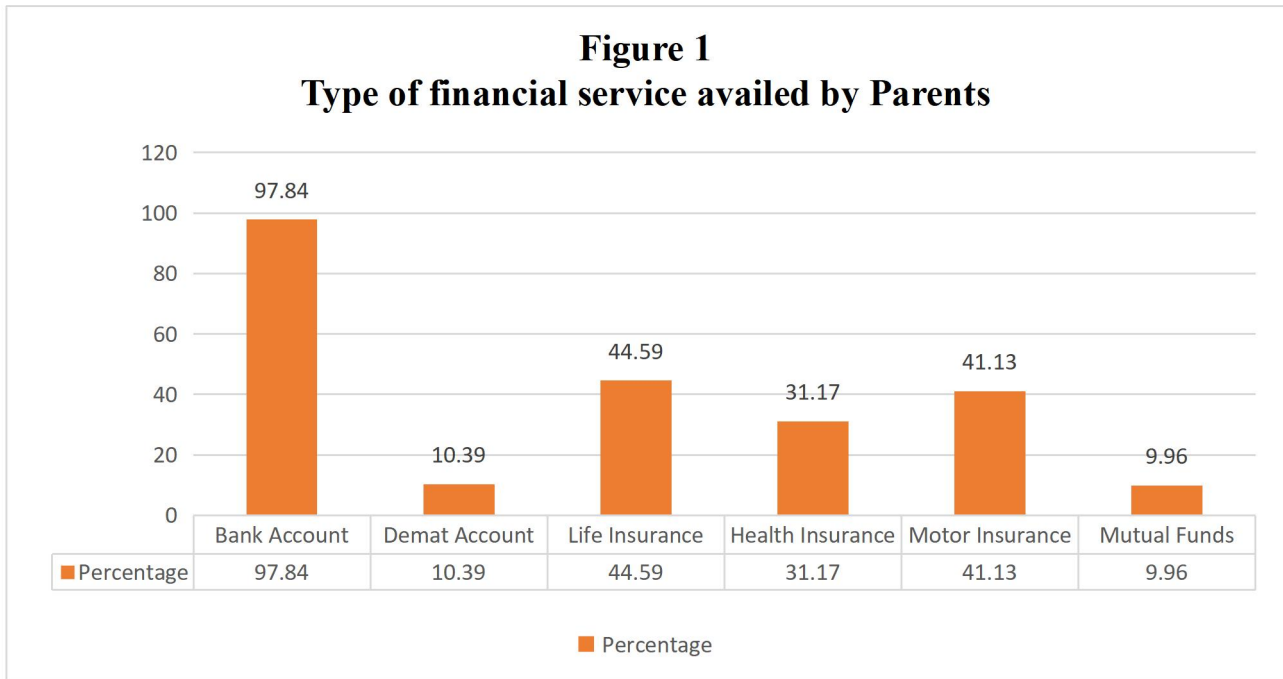
*\*\*Source: Primary Data*

Respondents were asked about the financial services that their parents are availing. Most of the students (97.84 per cent) responded that their parents have the bank accounts (either saving account or current account). 44.59 per cent of the parents also invested in taking life insurance, 31.17 per cent of the parents availed health insurance also.

As far as trading in stocks and mutual fund is concerned, 10.39 per cent and 9.96 per cent of the parents availed these financial services respectively. All these percentages were also shown below in figure 1. These high percentage of using the financial services could be because most of the parents were literate and were also have more savings (income more than expenditure) to invest in the financial



services.



*Source: Primary Data*

### **Saving Pattern Of Family**

To cross verify the result that the family of respondents spends only according to their income, another question was asked whether their family manages to save their income or not and what percentage they manage to save. Results of this statement is shown below in table 3.

Most of the respondents (37.2 per cent) declared that their family manages to save 10-20 per cent of their income. 25.5 per cent of the respondents claimed that they save 20-30 per cent of their funds.

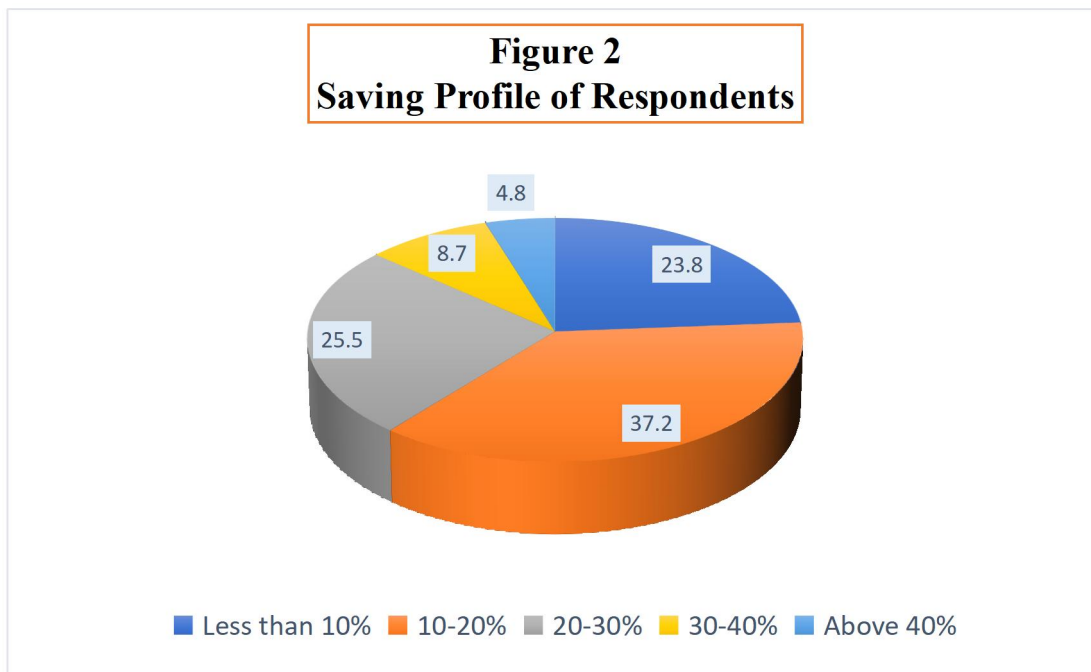
**Table 3**

**Family Savings (in percentage)**

<b>Value</b>	<b>Frequency</b>	<b>Percent</b>	<b>Cumulative %age</b>
Less than 10%	55	23.8	23.8
10-20%	86	37.2	61.0
20-30%	59	25.5	86.6
30-40%	20	8.7	95.2
Above 40%	11	4.8	100.0
Total	231	100.0	

*Source: Primary Data*

Most of the respondents (37.2 per cent) declared that their family manages to save 10-20 per cent of their income. 25.5 per cent of the respondents claimed that they save 20-30 per cent of their funds. Those who manages to save less than 10 per cent of their money were 23.8 per cent of the total. 4.8 per cent of the respondents revealed that their family saves more than 40 per cent of their money. Saving profile of respondent's family is also shown in the pie chart below.



*Source: Primary Data*

These values shows that families of respondents were relatively aware of their savings and spends according to their income. This may also help them to save the funds to invest in other financial needs.

### **Limitations Of The Study**

The study has been restricted to only one district of Punjab, i.e., Hoshiarpur. The findings may not be applicable to other areas of the Punjab. Due to limitation of time and resources, the statements asked were just 30, hence response of limited respondents was collected. With greater sample size there would have been more possibility to generalize the findings of the study. The primary data have been collected through online google forms in the study. The feedback of the respondents in such surveys may be biased. Sometimes the responses of the respondents are different than what they actually experienced because they want to keep their experiences confidential.

### **Conclusion**

As far as analysis of monthly income/expenditure ratio is concerned, most of the families were found to be spending according to their income levels and respondents were observed relatively aware about the savings. High percentage of usage of financial services was also observed. This may be due to high

literacy rate among parents of students and were also have more savings to invest in different financial plans.

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# CHAPTER XXIV

## BLOCKCHAIN TECHNOLOGY - A DECENTRALIZED APPLICATION

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### **Abstract**

Blockchain Technology having a powerful backbone and holding a potential to transform the modest economic market, can be regarded as one of the biggest technological milestones of the century. Starting from energy sector, financial services, logistics and even healthcare also the Blockchain technology is all set to reshape the E-Commerce industry itself.

Due to vast range of products available on various e-commerce platforms, a number of problems are also arising related to data security and storage, management, transparency and customer satisfaction. In such scenarios, Blockchain technology seems to emerge as one of the best solution to resolve such hurdles. Clearly Blockchain technology holds the maximum potential to be an effective and efficient game changer in the e-commerce sector and its financial services. In nearest future most of the emphasis will be given on the payment gateways, logistics and supply chain management, transparent market sphere, data storage and security.

Firstly, e-commerce projects like Request Network and E-Commerce may create business model accompanied with fast and secure transactions. Hence it may ultimately help in establishing the high standards with increased consumer satisfaction and lower transaction cost. Besides data safety and security can be easily achieved as Blockchain based technology coupled with artificial intelligence that support in creating an amazing user experience along with facilitating the seamless services in industry. Therefore, Blockchain technology will ultimately help in aiding the increased customer satisfaction with overall improvement of the e-commerce industry.

**Keywords-** Blockchain, Nodes, Cryptocurrency, Distributed ledgers, Notary.

## **Introduction**

### **Brief Primer On Blockchain Technology**

Launched in August 2011, the service provides data on recent transactions, mined blocks in the bitcoin blockchain, charts on the bitcoin economy, and statistics and resources for developers. The Blockchain.info mobile app for Android allows users to securely send and receive bitcoins and browse Blockchain information. In December 2013, the company acquired ZeroBlock LLC.

In February 2014, Apple Inc. removed the Blockchain app from the iOS App Store, prompting a harsh response from Blockchain and public outcry in the bitcoin community, most notably within the Reddit community. In July 2014, Apple reinstated the app.

In October 2014, Blockchain.info closed a \$30.5 million fundraising round from Lightspeed Venture Partners and Mosaic Ventures, which was the biggest round of financing in the digital currency sector at that time.

In August 2015, Blockchain.info's CEO Peter Smith was invited to accompany then UK Prime Minister David Cameron on a tour throughout southeast Asia to engage with local representatives about the UK's leading role as a global fintech hub.

### **What Is Blockchain Technology?**

'The Blockchain is an incorruptible digital ledger of economic transactions that can be programmed to record not just financial transactions but virtually everything of value.'

Don and Alex Tapscott, authors Blockchain Revolution (2016)

Information held on a Blockchain exists as a shared — and continually reconciled — database. This is a way of using the network that has obvious benefits. The Blockchain database isn't stored in any single location, meaning the records it keeps are truly public and easily verifiable. No centralized version of this information exists for a hacker to corrupt. Hosted by millions of computers simultaneously, its data is accessible to anyone on the internet.

Blockchain Durability and robustness

Blockchain technology is like the internet in that it has a built-in robustness. By storing blocks of information that are identical across its network, the Blockchain cannot:

1. Be controlled by any single entity.

2. Has no single point of failure.

Bitcoin was invented in 2008. Since that time, the Bitcoin Blockchain has operated without significant disruption. (To date, any of problems associated with Bitcoin have been due to hacking or mismanagement. In other words, these problems come from bad intention and human error, not flaws in the underlying concepts.)

The internet itself has proven to be durable for almost 30 years. It's a track record that bodes well for Blockchain technology as it continues to be developed.

So Blockchain truly is a mechanism to bring everyone to the highest degree of accountability for the transactions undertaken by them. No more missed transactions, human or machine errors, or even an exchange that was not done with the consent of the parties involved. Above anything else, the most critical area where Blockchain helps is to guarantee the validity of a transaction by recording it not only on a main register but a connected distributed system of registers, all of which are connected through a secure validation mechanism.

## **A Network Of Nodes**

A network of so-called computing 'nodes' make up the Blockchain. Node is computer connected to the Blockchain network using a client that performs the task of validating and relaying transaction through distributed ledgers and in return client gets a copy of the Blockchain, which gets downloaded automatically upon joining the Blockchain network.

Nodes are said to be 'mining' Bitcoin, but the term is something of a misnomer. In fact, each one is competing to win Bitcoins by solving computational puzzles. Bitcoin was the *raison d'être* of the Blockchain as it was originally conceived. It's now recognized to be only the first of many potential applications of the technology.

There are an estimated 1600 Bitcoin-like cryptocurrencies (exchangeable value tokens) already available. As well, a range of other potential adaptations of the original Blockchain concept are currently active, or in development.

'Bitcoin has the same character a fax machine had. A single fax machine is a doorstop. The world where everyone has a fax machine is an immensely valuable thing.' – Larry Summers, Former US Secretary of the Treasury

## **Blockchain As a Decentralized Technology**

The Blockchain is an encrypted, distributed database that records data, or in other words it is a

digital ledger of any transactions, contracts - that needs to be independently recorded. One of the key features of Blockchain is that this digital ledger is accessible across several hundreds and thousands of computer and is not bound to be kept in a single place. Blockchain chain has already started disrupting the financial services sector, and it is this technology which underpins the digital currency- bitcoin transaction.

With Blockchain technology in financial sector, the participants can interact directly and can make transactions across the internet without the interference of a third party. Such transactions through Blockchain will not share any personal information regarding the participants and it creates a transaction record by encrypting the identifying information. The most exciting feature of Blockchain is that it greatly reduces the possibilities of a data breach. In contrast with the traditional processes, in Blockchain there are multiple shared copies of the same data base which makes it challenging to wage a data breach attack or cyber-attack. With all the fraud resistant features, the block chain technology holds the potential to revolutionize various business sectors and make processes smarter, secure, transparent, and more efficient compared to the traditional business processes.

## **Applications Of Blockchain Technology In Various Industries**

Blockchain technology can be utilized in multiple industries including Financial Services, Healthcare, Government, Travel and Hospitality, Retail and CPG. Financial Services: In the financial services sector, Blockchain technology has already been implemented in many innovative ways. Blockchain technology simplifies and streamlines the entire process associated with asset management and payments by providing an automated trade lifecycle where all participants would have access to the exact same data about a transaction. This removes the need for brokers or intermediaries and ensures transparency and effective management of transactional data.

**Healthcare:** Blockchain can play a key role in the healthcare sector by increasing the privacy, security and interoperability of the healthcare data. It holds the potential to address many interoperability challenges in the sector and enable secure sharing of healthcare data among the various entities and people involved in the process. It eliminates the interference of a third-party and also avoids the overhead costs. With Blockchains, the healthcare records can be stored in distributed data bases by encrypting it and implementing digital signatures to ensure privacy and authenticity.

**Government:** Blockchain technology holds the power to transform Government's operations and services. It can play a key role in improving the data transactional challenges in the Government sector, which works in siloes currently. The proper linking and sharing of data with Blockchain enable better management of data between multiple departments. It improves the transparency and provides a better way to monitor and audit the transactions.



**CPG and Retail:** There is a huge opportunity for Blockchain technology to be applied in the retail sector. This includes everything from ensuring the authenticity of high value goods, preventing, fraudulent transactions, locating stolen items, enabling virtual warranties, managing loyalty points and streamlining supply chain operations.

**Travel and Hospitality:** The application of Blockchain can radically change the travel and hospitality industry. It can be applied in money transactions, storing important documents like passports/ other identification cards, reservations and managing travel insurance, loyalty and rewards.

## **Key Challenges Of Using Blockchain Technology**

The lack of awareness and understanding of the Blockchain concept and how it works are the key challenges of using Blockchains in industries other than financial services sector. The challenges associated with existing legacy infrastructure in organizations and lack of proper technical understanding are major hurdles to the adoption of Blockchain in the mainstream. Adopting Blockchain also require a cultural shift from the traditional ways of doing things, as it involves a major shift by decentralizing the whole process. Complying with the existing regulations and ensuring the required data privacy and security for the shared data bases also adds to the major roadblocks in adopting Blockchain.

The global business world is yet to explore the intricacies of the Blockchain concept to its fullest. However, we believe that with the ongoing researches and explorations happening in this space, the business world will soon realize the massive potential of this technology and it will drive a new wave of decentralized applications.

## **Why Blockchain???**

Peer-to-peer connectivity over the internet has existed for some time in a number of formats, allowing for the distribution of digital assets directly from one person or business to another.

Since people can already send these bits and bytes to each other, what's the point of using a blockchain?

The behavior of the bitcoin Blockchain is the perfect example to answer this question. Pretend for a moment that there was no Blockchain in place and that you had one bitcoin token in your possession with its own unique identifier assigned to it.

Now, say you wanted to buy a new television from a business that accepts cryptocurrency, and that shiny new TV happens to cost one bitcoin. Unfortunately, you also need to pay back your friend for the bitcoin which you borrowed from him last month.

In theory, without the Blockchain in place, what's to stop you from transferring that same digital token to both your buddy and to the electronics store?

This dishonest practice is called double-spending, and it's one of the main reasons why peer-to-peer digital transactions have never really caught on until now. With blockchain, which not only distributes a public record of all transactions but confirms a block before each of its individual transactions can be finalized, the possibility of this fraudulent activity is essentially wiped out.

In the past, intermediaries such as banks and payment processors validated these transactions to make sure that everything was on the up and up. Blockchain technology lets a user to transfer digital assets from point A to point B, taking comfort in the fact that reliable checks and balances are in place.

## **Exploring The Blockchain**

The ability for anyone to view a public Blockchain such as the one associated with virtual currencies is a key factor in why the technology works as well as it does. The easiest way to peruse this distributed database is through a block explorer, typically hosted on a free-to-use website such as Blockchain.info.

Most Blockchain explorers are heavily indexed and easily searchable, allowing you to locate transactions in a number of different ways including by IP address, block hash, or other relevant data points.

## **Future Uses Of Blockchain**

Blockchain has come to the forefront of many discussions because of its role in the distribution of cryptocurrencies like bitcoin. In the long run, these digital cash transactions may end up being a small part of Blockchain technology's overall footprint on the world as a whole and the way assets are transferred online.

The possibilities for Blockchain implementation seem endless, as its underlying technology can be leveraged in many fields to perform a number of important tasks such as:

- Executing contracts
- Safely buying and selling intellectual property
- Distributing important medical information
- Ensuring that voting in elections is incorruptible

World society has just begun to scratch the surface of Blockchain applications. New potential uses for Blockchain are being discovered on a regular basis.

Private blockchains will allow companies to revolutionize their own internal processes, while public, open-source variations will continue to change the way people handle business in their daily lives.

## **Predictions**

### **Government Crypto**

By 2030, most governments around the world will create or adopt some form of virtual currency.

The government currency of the future is inevitably crypto. Compared to the traditional fiat alternative, cryptocurrency is more efficient, provides reduced settlement times, and offers increased traceability. Cryptocurrency can also be backed by real assets, similar to fiat currency, and its price can be artificially manipulated by numerous controls (e.g., monetary policy for 'printing' more tokens).

In the short term, government-based cryptocurrency will become an area of experimentation and explorations, led mostly by developing nations with unstable economies and weak institutions. Many of such efforts will move in a hasty fashion—with a timeline driven by political concerns rather than economic issues or technical progress.

### **Trillion-Dollar Protocols**

By 2030, there will be more trillion-dollar tokens than there will be trillion-dollar companies.

There is a race among the four most valued companies in the world (based on stock market valuation) as to which one will be the first to reach one trillion dollars in value. Apple, Amazon, Alphabet (Google), and Microsoft are in a race to the '4-comma club'.

These companies are all representative of the new economy—one that should perhaps be called the no-longer-so-new economy. This new-ish economy is one based on the decades-long transition to digital business and online connections. It is the Internet economy or what Blockchain advocates call 'Web 2.0' (anticipating the next era, the Blockchain era, as 'Web 3.0').

The old (traditional, pre-internet) economy is analog, brick-and-mortar, based on oil and resource extraction, on manufacturing of raw materials and cultivation of foodstuffs and accoutrements, and on the transportation and sale of these through traditional physical channels. Obviously, the real world will not disappear. It is where we live, breathe, eat, and ambulate. But its economic role has declined in the grand scheme of things.

### **Blockchain As Identity For All**

By 2030, a cross-border, Blockchain-based, self-sovereign identity standard will emerge for

individuals, as well as physical and virtual assets.

If e-mail proved to be the 'killer app' for the Internet, identity solutions will prove to be the 'killer app' for blockchain. Identity systems, as we know them today, are highly dysfunctional, operating in silos, and insecure. Blockchain-based identity systems will solve these problems. These systems will provide a single source of verification for individuals' identities and assets.

## **World Trade On A Blockchain**

By 2030, most of world trade will be conducted leveraging Blockchain technology.

One of the most promising areas where Blockchain can provide significant business value is global supply chain. In its current state, world trade is conducted via a chaotic, fragmented set of business relationships among parties that are untrusted. This results in inefficiencies, errors, and fraud. This is a set of real-world business problems that are currently unsolved and cannot be fully solved without using Blockchain technology.

## **Blockchain4Good**

By 2030, significant improvements in the world's standard of living will be attributable to the development of Blockchain technology.

Poverty and income discrepancy are arguably the hardest problems for humanity to tackle. More than 10% of the world population, more than 750 million people, live on less than \$2 a day. More than 2 billion people are considered to be unbanked and have no access to financial services. Though the overall living standards increase, and world's GDP is on the rise, the rich get richer and the poor get poorer.

## **A Growing Need For Credible Crypto Backing**

Money, regardless of whether it's physical or digital, needs credible backing. When there are no trusted parties handling the transactions, then a distributed ledger becomes key, like blockchain. However, if a cryptocurrency is an official currency, then there are already technologies in place to ensure transactional integrity and prohibit tampering with transactional data.

## **Ultimate Transparency Across Industries**

Blockchain's structure is built as a distributed ledger that ensures complete privacy and control of all data to all users. Any changes to the Blockchain are always completely transparent and accessible to the public. The use of a single publicly available digital ledger makes it easy to spot hacking attempts, while also reducing the messiness associated with systems containing multiple ledgers.

## Blockchain-Based Security Measures

More focus being placed on the powerful potential of Blockchain for financial and non-financial applications. More investment is being put toward building out tools and platforms built on Blockchain for identity verification, other security measures, contracts, payments and more.

## Conclusion

First of all, you need to realize that there's a huge difference between a Blockchain and cryptocurrencies. Blockchain is a technology which is used to create crypto money like bitcoin or ethereum. But it's only one of the variants how you can use blockchains. I believe that the technology is really very helpful and has bright future. And the one thing that doesn't let you think the same is a pile of myths which surround Blockchain technology. Let's dispel them. There's only one Blockchain. Such thoughts come to mind of people who don't understand the meaning of a Blockchain. You shouldn't imagine it as a single platform. In simple English, Blockchain is a database, innovative and unique, but still a database. An experienced developer with a decent skill set can create a Blockchain for your software system. It can be small or big, private or public. It's different. It's 100% secure. This is not true. There's nothing 100% secure in this world. And no one can guarantee you that some smart guys can't crack it. Yet, Blockchain's main feature is to record everything that happens with it, so a hacker attack won't go unnoticed. Public means for everyone. Another peculiarity of Blockchains is that these systems are public and all people who have access to it can see all the data stored in the database. It's true, nevertheless, there are lots of approaches how you can make it private with the help of various superstructures. Blockchains are only used for cryptocurrencies and cannot be applied to businesses. Did you know that Sierra Leone was the first country which conducted elections there with the help of software which was powered by Blockchain system? I believe that it's a very vivid proof of Blockchain bright future! The technology can help any sphere anywhere. Blockchain allows you to store a lot of information safe which makes it a cheap substitution for multiple complex software systems. Blockchain can be used in different spheres and industries. And the main trick here is that small and middle size companies can use them successfully just like large ones. Here are the main areas where you can try to use Blockchain for your business. Banking systems can protect transactions with the help of Blockchain. In such a way they reduce the cost of money transfers and you get cheaper services.

**Smart contracts.** These are the documents which no one can falsify once it was signed. Moreover, the system guarantees that all the requirements of a contract will be met.

**Storage systems.** Databases created with the help of Blockchain technology allows you to store more using less hardware.

**Notary.** A Blockchain system can completely replace a need to contact your notary. This system

makes records which no one can change or delete a document. There are actually many more variants of Blockchain use.

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# CHAPTER XV

## THE PROBLEM OF BRAIN DRAIN IN INDIA

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### **Abstract**

Brain drain from India is at rise and is a cause of concern for the country. Over the years, millions of young talented Indians from various disciplines have left the country in search of better opportunities. For a long time, the idea of people moving to a different country was seen as a badge of honour, a feather in the cap as it were. The most singularly pursued dream. And this was primarily because India was unable to offer those prospects to its citizens. It is not that India is adequately able to, right now as well. There may be several reasons of brain drain. Studies have found that 23,000 Indian millionaires have left India since 2014 and that nearly 7,000 millionaires left in 2019 alone, costing the country billions in tax revenue. Since 2015, nearly 9 Lakh Indians have given up their citizenship. 'Non-residential' Indians are becoming 'not-returning' Indians, and even the 'reverse brain drain' has stopped. So is India's brain drain problem getting worse? The present paper is an endeavour to assess the problem of brain drain in India.

**Keywords:** Brain Drain, Overseas Education, Professionals, Technocrats.

### **Introduction**

Brain Drain is actually the shifting of highly skilled and qualified people to a country where they can enjoy a better work culture and earn more. It can also be named as 'human capital flight' because it is similar to the case of capital flight, in which mass migration of financial capital is involved. Indian Diaspora is a geographically diversified Diaspora, which is spread in as many as 110 countries. The Government of India estimated that there are 30 million Indian Diaspora spread across the world. The 30 million Indian human resources who are working for the developed countries are highly skilled. We are generating valuable human capital with our valuable money which is collected from the tax payers. But the tragedy is we are sending our skilled human resource for the development of developed countries. India is becoming a major supplier of human capital for the advanced economies. India is sending large numbers of these specialists compared to other important origin countries. Brain drain is the current socio-economic problem of our country.

## Objectives

The paper has the following objectives:

1. To assess the reasons of brain drain in India
2. To know the impact of brain drain on Indian Economy
3. To know the implications of the problem of brain drain

## Research Methodology

The secondary data sources have been used to explore the problem of brain drain in India. The study is descriptive in nature.

### I. Reasons For Brain Drain In India

In 1963, the Royal Society defined 'brain drain' as the exodus of British scientists to the US, seriously jeopardising the British economy. The term later found relevance in the Indian context in the post-colonial era. India witnessed the sharpest increase in people migrating overseas, at nearly 10 million (one crore), between 2000 and 2020, according to the 'International Migration 2020 Highlights', a report issued by the Population Division of the United Nations Department of Economic and Social Affairs (UN DESA) in January 2021. The report also mentioned that as of 2020, India's diaspora stood at about 1.8 crore. It highlighted that India has the largest transnational population, with approximately 35 Lakh people living in the UAE, 27 Lakh in the US, and 25 Lakh in Saudi Arabia. But the major issue is not about Indians leaving as much as it is about their not returning. According to the Ministry of Home Affairs, 8, 81,254 Indians gave up their citizenship from 2015 to September 30, 2021. There are various reasons for the brain drain in India. The reasons usually include two aspects which respectively come from countries and individuals. In terms of countries, the reasons may be social environment (in source countries: lack of opportunities, political instability, economic depression, health risks, etc.; in host countries: rich opportunities, political stability and freedom, developed economy, better living conditions, etc.). In terms of individual reasons, there are family influence, and personal preference: preference for exploring, ambition for an improved career, etc. Keeping all these in mind we can identify some causes for the brain drain in India.

### Higher Education

Higher education in India is an unattractive prospect for a number of reasons. Diminishing research opportunities, impossible cut-offs at top universities and falling standards of university education are among them. Indian universities consistently score low in global rankings; the QS World University



Rankings 2021 did not feature an Indian institute among the world's top 100 universities. The anomaly between education and employment is also a factor; even before Covid-19, job creation did not match the numbers looking for employment. This has led to the creation of a sizeable constituency of educated citizens who are unemployed.

### **Employment**

India has skilled and semi-skilled, employed and unemployed human resource. Low salaries and inefficient working conditions can be the first motive that triggers the movement to the countries with better living standards and facilities. There is huge difference in terms of salary in all three groups of countries namely developed, developing and underdeveloped. To demonstrate, skilled workers aim to get pleasing salaries in return for their labour but the working conditions in their homeland don't fulfill their wishes. Therefore, those workers prefer to move another country in order to have better living conditions with high salaries. Employment is one of the strong reasons for brain drain in India.

### **Lack Of Opportunities**

In developed countries, researchers are provided with funds and necessary equipment to carry out study, which can be another motive that attracts those deprived of these opportunities. Most scientists in underdeveloped countries do not possess laboratory facilities and researchers cannot get sufficient funds. Therefore, when developed countries offer these facilities, researchers and scientists naturally prefer to migrate to these countries. The internationalization of knowledge creation and the rapid expansion of Research and Development activities determined the diversification of receiving countries for professionals and skilled workers from India. Traditional migration streams of highly-skilled Indian were directed toward the United States and the UK. In the 2000s, new non-English-speaking destinations emerged in Europe such as Italy, France, Germany and other European countries. The number of skilled Indian migrants moving to Australia, Canada, and New Zealand also increased.

### **Favourable Migration Policies**

Increasing economic interdependence among nations, growing demand for skilled labor in the knowledge economy not to mention demographic trends are all strengthening the position of India as a major supplier of young, educated and qualified manpower for the EU. Owing to its demographic profile and its English-speaking population, India, with its large reserves of highly skilled workers, has emerged as one of the most prominent country to fill the supply gaps in the labour-deficient economies of the developed world. Taking into account EU economic objectives coupled with demographic and ageing effects, Member States have put in place selective immigration policies aimed at attracting highly-skilled professionals and tertiary-level international students from South Asia. In order to facilitate labour mobility, some EU countries signed labour-mobility partnerships with India. According to the Ministry of

Overseas Indian Affairs, this kind of agreements was signed with Denmark, and negotiations are ongoing with other European countries, EU and non EU, including Poland, the Czech Republic, Norway, Switzerland and Hungary, Sweden and France.

### **Better Living Standards**

Indians move to other countries in search of a better standard of living and quality of life, higher salaries, access to advanced technology and more stable political conditions across international borders—to Canada, Australia, European countries and more. There are so many causes of the brain drain in India. First of all, there is the unemployment problem. Even a talented person cannot get job. India is lacking in facilities for higher research work. The top appointments are quite few in India. Thus, the talented experts like to seek new pastures abroad.

## **II. Impact of Brain Drain on Indian Economy**

Human capital is precious for the growth of a developing nation like India. It can be referred to as people equipped with the knowledge and skill sets suitable for contributing towards economic value. But people are not born with the same skill set or knowledge. They usually acquire it through education and skilling which directs us to the need for constant up skilling of India's existing workforce. No doubt India has skilled manpower; unfortunately, skilled workers are moving abroad due to better remuneration, quality education, social security, and tax concerns. International migration of Indian workforce is harmful for Indian economy and several economic effects on India such as:

- Loss of tax revenue
- Loss of potential future entrepreneurs
- Loss of innovative ideas
- Loss of the country's investment in education
- The loss of health and education services

### **Implications Of The Problem Of Brain Drain**

1. Education system should be practical rather than theoretical.
2. Quality of education should be enhanced by establishing best quality educational institutions.
3. Skill development should be promoted through vocational and skill development courses.

4. More and more employment opportunities should be generated to reduce the exodus of professionals from India.
5. Government should frame the policies that convert brain drain into brain gain.
6. Good governance and transparent administration can be the most efficient way to reduce the problem of brain drain.

## **Conclusion**

Though the problem of brain drain is awkward, yet it needs deliberate action of the government of a country to hold its youth back in the nation. If a country is successful in curbing this problem, it will help a particular country to use all local skilled citizens for development and proliferation. But to hold these skilled workers at their native places, it is also important to provide them enough work opportunities and living facilities. For this purpose, developed nations should help developing countries with necessary money and resources. So that each and every human of this planet can have good standard of living and each and every nation can introduce itself as a developed nation. Brain drain is usually described as a problem that needs to be solved. However, there are benefits that can be derived from the phenomena. When people move from Less Developed Countries to developed countries, they learn new skills and expertise, which they can utilize to the advantage of the native economy once they return. Another benefit is remittances; the migrants send the money they earn back to the home country, which can help to stimulate the home country's economy.

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# CHAPTER XVI

## ASSESSMENT OF VALUE EDUCATION IN INDIA

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### **Introduction**

Education is an eye-opener to human beings. Education paves a way for social and economic development. As pointed out by the greatest thinker of the world Socrates, raise the question of why and for what? If you get the proper reply, you will not be dominated by anybody. To ask these two questions you need a proper education. Education should impart not only knowledge and at the same time inculcate the values of life also. Mere education will produce only graduate missions without any needy output for the well-being of the country. Value education may seem a vague term to many of us even though we may be hearing about it frequently. While beginning this foundation course in value education, let us understand what we are talking about and what its need is, particularly in the context of professional education. In this course, we are going to clarify certain fundamental issues which are important to all of us in our life-issues which directly relate to our happiness, welfare, our aspirations, goals and success in life. In a sense, value education deals with what is universally valuable to all of us, what is conducive to our individual and collective happiness and prosperity in a sustainable way. It enables us to be in harmony within ourselves, with other human beings and with the rest of nature at large. Such an understanding will be vital for the successful conduct of our profession as well.

### **Basic Guidelines For Value Education**

Now that we have identified the need for value education, let us also visualize certain effective and widely acceptable guidelines which will enable the introduction of value education in the present system. Given below are broad guidelines to decide on what would qualify as an appropriate input in value education:

#### **Universal**

Whatever we study as value education has to be universally applicable to all human beings and be

true at all times and in all places. In addition, it need not restrict itself to a certain sect, creed, gender or nationality etc. So, it has to deal with universal human values.

## **Rational**

It has to be amenable to reasoning and not based on dogmas or blind beliefs. It cannot be a set of sermons or Do's and Don'ts.

## **Natural And Verifiable**

We want to study something that is natural to us. Being natural means, it is acceptable in a natural manner to all human beings. When we live on the basis of such values that are natural to us, it leads to fulfilment, leads to our happiness and also is conducive to other people we interact with, as well as with nature. We also would like to verify these values ourselves, i.e. we don't want to assume something just because it is being stated here or written in a book, rather, each one of us will want to verify these to find out whether they are true for us. This has to be done by both checking for validity within ourselves, as being naturally acceptable as well as something which we can implement in our living and observe its outcome to be fulfilling.

## **All-Encompassing**

Value education is not merely an academic exercise. It is aimed at transforming our consciousness and living. Hence, it has to permeate into all dimensions of our living, namely, thought, behaviour, work and understanding/realization; as well as all levels, namely, individual, family, society and nature.

## **Presents Scenario**

Various kinds of programmes are being conducted for the orientation and training of teachers in value education both in preservice and in-service. Focus is given to the personal development of the subjects through mind improvement techniques, prayer, yoga meditation and relief from stress.

The emphasis is given to inspiring the student to live a life of peace, moral purity and spiritual development. Teachers and teacher educators are to be prepared as value educators with reference to the concrete realities in which they have to function programmes for teachers training in value education should be rooted in the realities of school and teachers'education, with greater emphasis on values like justice, equality, compassion, cooperation and human rights. To cope with the increasing demands on teachers, teacher education in India has become more professional, characterized by university qualifications and scientific orientation.

## **Need Curriculum Reconstruction**

If value education is planned as education activities aimed at the development of the learner's personality the most obvious way of implementing it is to look into the processes of education itself – its aims, curriculum and methods – instead of searching for solutions from outside.

## **Role Of Teachers**

The teacher can play an important role for uplifting and upgrading value education among student-teachers in teacher education programmes. We live in a time when our understanding of the role of the teacher and the power of value education are coalescing value-based education. Teaching is not a job, it is an attitude.

The teacher is a source of information, a guide, a mentor, a surrogate parent, a motivator, all at the same time. Teaching is the only profession which always deals with the future. The role of a teacher in the changing social scenario is becoming very challenging. According to Confucius only a person who is always a source of love, morally upright and whose behaviour not only in personal but also in institutional life is impeccable is worthy of being a teacher. Role of teachers can be summarized in three perspectives: three T's Transfusion, Transaction, and Transformation.

## **Conclusion**

Indian pupil teachers undergo a change in their value development, which can be observed in their attitudes towards people and the environment around them. Their values are mainly individual and about self-enhancement, focusing on teaching competence. Student teachers will take a very important role in effective education in future, which focuses on values and programmes that should not be regulated.

Hidden curricula like mentors and teacher educators in the teacher education programmes should be aware that they also play a very important role in shaping the values of the student teacher. Teacher educators are the real leaders of the nation. The destiny of a nation is shaped by its educational institutions. As education is the key to human progress and social change greatness of a nation is 88 witnessed through its educational system.

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