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1. E-Learning in Higher Education during Lockdown Period of COVID-19 Pandemic

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Abstract

Overall educational sector has been collapsed during the lockdown period of the novel coronavirus disease 2019 (COVID-19) not only in India but across the globe. This research paper focused on E-learning modes adopted by the Mumbai University for the teaching-learning process and subsequent semester examinations. It looks forward to an intellectually enriched opportunity for further future academic decision-making during any adversity. The purpose of this paper seeks to address the required essentialities of E-learning in education amid the COVID-19 pandemic and how can existing resources of educational institutions effectively transform formal education into online education with the help of virtual classes and other online tools in this continually shifting educational landscape. This paper enlightens ongoing E-learning activities during the lockdown period including establishing the linkage between change management process and E-learning process in education system amid the COVID-19 outbreak. It helps to overcome the academic disturbance and consequently ensure as a normal course of procedure in the education system.

Keyword - E-learning, COVID-19, Lockdown period, Online education.

Introduction

The COVID-19 is a highly infectious disease caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), originated in Wuhan city of China, has already taken on pandemic situation, affecting across all the continents, mostly spread among individuals during close contact now resulting in millions of deaths (Remuzzi & Remuzzi, 2020). The onset of the novel coronavirus made everything from world economies to social rituals devastated (Schulten, 2020). In fact, lockdown is a state of the emergency protocol implemented by central and state governments to restrict people from leaving their place of living resulting in mass quarantines and stay-at-home across the world since March 2020. The coronavirus triggered the

first phase nationwide lockdown in India which began on March 25, 2020, and continued in different phases.

Approximately 264 million children and adolescents are not in school and this pandemic made this situation further worst (UNESCO, 2017). Online teaching is only option left when all schools, colleges and universities shutting down (Martinez, 2020). Therefore, this is the time to gravely rethink, revamp and redesign our education system in much demanding need of current situation. But, due to COVID-19 crisis, online education shifted from traditional method to the modern approach of teaching-learning from classroom to Zoom, from personal to virtual and from seminars to webinars. The distance education and correspondence courses were gradually included in regular education system. Some online platforms transfer the destination and direction of the whole education system. Coursera, Google Classroom, Udemy, Codecademy, Edx, Pluralsight, G Suite, Otus, and many more.

Lederman (2020) justly stated that due to the COVID-19 crisis teachers and students both find themselves in the situation where they felt surrender to accept the digital academic experience. Apart from that, some people hoped to parlay their enterprising skills into profit-making opportunities. After COVID-19 pandemic next step is inevitable for integrating technology in our E-learning process that enables us to teach students with the methods in which they would not only feeling comfortable but also, they can peer the needs of technology in 21st century.

Material and Method

This study has been conducted in Mumbai University, Mumbai. 700 affiliated colleges come under this university. The present study used both quantitative and qualitative methodologies to study the E-learning process in higher education institutes during the lockdown period in Mumbai University. Thus, the total of 10 faculty members and hundred students participated as a sample in a descriptive survey to assess their opinion towards E-learning. In present paper for quantitative analysis developed two questionnaires to study the opinion of teachers and students separately on E-learning mode. A semi-structured interview was taken to get the opinion and detailed information from teachers and students during the lockdown period.

Result and Discussion:

Present survey revealed that different types of E-learning modes adopted by the teachers and students during the lockdown period. Table 1 shows the details of the varied modes of e-

learning modes being used by the teachers and students during the lockdown period. Almost all the teachers and students were using WhatsApp, Telegram and Email for communication.

Table 1. Table Showing Different Online Teaching Modes Used By the Teachers and Students.

S.N.	Modes of E-learning	% of teachers	% of students
1.	Google Classroom	40	20
2.	Zoom/ Cisco WebEx/ Google Meet/ Skype	45	15
3.	Webinar	25	35
4.	YouTube Videos	50	28
5.	WhatsApp/ Telegram	100	100
6.	Telephonic Conversation	87	23
7.	Email	100	100

The University thoroughly planning the e-learning and motivated faculty and students. The MHRD, UGC and University substantially made the decision at the right time for inclusion of the entire in online teaching mode that depends upon the change of mindset for the organisational authorities along with the teachers and students to adapt to the technology-based teaching. There was an urgent need of online educational resources and training programmes for teachers and students.

Teachers need to develop excellent domain knowledge, proficient computer knowledge, communication skills, clarity of expression, emotionally connect with the students and other skills. Different virtual classroom experience, patience, empathy, care for students, excellent presentation skill with addressing to the point of a given topic, proper handling of teaching-learning tools available with user-friendly features were noticed to manage online process. The digital study materials such as free access to e-books & e-journals, open educational resources, databases, internet connections, Wi-fi, free account on Zoom & Google Meet are found available with the teachers of University. In motivating students, along with collaborating and team teaching was the critically facing during online classroom.

As far as student's opinion on online E-learning, they opined that online learning process during the time of COVID-19 had helped them in touch with their lessons and created an alternative for completion of the syllabus. Some students were not habituated of learning with smartphones and computers so they failed interest in teaching. Students mentioned that 5 h per day average times spending on online activities, as the. Some student reported due to inexpensive

prepaid plan they not attended class. So, they fail helpless to continue online education. Google Classroom is the simplest and appropriate way to chat with teachers, as responded by several students with the condition of functional internet connectivity. Students were unhappy about understanding of online classes. The challenges faced by the teachers and students in adapting to online teaching process during COVID-19 pandemic. The major challenge while teaching online was the unstable network connection. Besides, during the lockdown period at home, both male and female students were struggling with financial problems. Since E-learning in pandemic was a new experience for both teachers and students and therefore they pointed out about the stressful situation.

This paper enlightens the opinion of teachers and students on the E-learning process during the COVID-19 lockdown period. Due to the live-in remote area students faced problems in connectivity and video issues. Teachers and students started installing online learning platforms such as Zoom, Google meets, Telegram, LinkedIn learning, Udemy, and many more to widen their academic exposure and understanding. Teachers and students were facing same problem regarding adaptability. Brandon (2020) stated that efforts should be made to provide free-to-access online educational resources to students so that they could utilize their time in the best effective manner during the lockdown period. Zayapragassarazan (2020) emphasized on flexible learning, a learner-centred approach which provide students with a variety of learning choices to make learning outcome useful and exciting. Finally, there is a dire need to bridge the gap between, remote rural and urban students come from different socio-economic background.

Conclusion

To develop multitask approaches to achieve course content objectives for better learning outcome can be a better idea to deal with the complexity of online education. The governments must ensure the availability of reliable communication tools, high quality digital academic experience, and promote technology-enabled learning for students to bridge the disturbances originated in the education system before and after COVID-19.

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2. A Study on Perception of Post COVID-19 Situations on Information & Communication Technology (ICT)

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Abstract

COVID-19 has impacted a huge range of nations and is growing to be even worse than the vital economic, strategic, and political clashes taking place across the global. The outbreak has and nonetheless is impacting all industries, consisting of the Information & Communication Technology (ICT) sector. The global has by no means been extra interconnected, and this fitness disaster is affecting the complete global. The ICT enterprise is already dropping a whole lot of profits opportunities, and it's nonetheless unsure while the state of affairs will contain. Amidst the unsure scenario, many technological regions may be the important thing attention and maintain rising as clean winners. In the inside of this turmoil, ICT has performed AN very important perform in facilitating the secure remedy and remedy of affected populations. ICT has additionally proven itself to be vital each to bolstering long-time period resiliency in opposition to destiny pandemics and to resolving the secondary demanding situations that emerge inside a socially distanced environment. However, regarding ICT in in pandemic remedy and prevention contains with it its personal set of demanding situations regarding transparency, accountability, and Governments which practice ICT ought to make sure that far-attaining disaster measures do now no longer emerge as completely entrenched in society, and that measures which might be taken are deemed fair, proportional and just. The modern conditions are affecting the ICT in each area anywhere used. The paper indicates the look at of the people's view on effect of COVID-19 conditions at the ICT in special sectors.

Keywords: ICT, computer, technology, COVID-19, pandemic, etc.

Introduction

The COVID-19 pandemic represents a blended international economic, social and fitness disaster greater acute than this sort of occasion to date this century. As of May 2020, over 5.5 million instances have been showed across the world, leaving at the least 330,000 lifeless to date. These figures nearly surely underestimate the real toll, given the mass checking out shortages that have hamstrung the global reaction to date. Developing international locations have thankfully now no longer skilled the identical toll as advanced international locations to date, however absent on the spot measures to bring together a complete pandemic control framework, they hazard a comparable or maybe more importance of catastrophe given the present pressure on their clinical Pandemics gift demanding situations of a completely distinct kind than different sickness outbreaks or the enormous majority of different herbal disasters. Because those illnesses strike international populations which don't have any immunological revel in with them, their unfold is a long way greater rapid, and frequently, greater lethal than any similar sickness Essentially with the aid of using definition, pandemics effect absolutely each nook of society nearly simultaneously, in evaluation with the relatively contained harm of different This leaves little room for the resiliency and bendy reapplication of sources which aids healing from greater localized forms of disasters. Furthermore, in contrast to different forms of disasters, pandemics goal now no longer bodily infrastructure, however the very human infrastructure that's maximum essential to fight. The longer a sickness rages on, and the greater it kills and incapacitates essential employees at the front traces of the reaction, the weaker the defenses societies can mount towards an inferno which burns warmer the greater gasoline it consumes. These crippled clinical structures should in some way discover a manner to maintain the road over the months or maybe years it could take to expand remedies and vaccines from scratch, even assuming the pathogen does now no longer mutate in a manner which renders those efforts And finally, because the sickness reasons worry to unfold amongst the overall public, it undermines institutional and societal consider, especially in the swiftly evolving and unreliable data surroundings which such an occasion creates. The ICT zone has a record of bouncing returned following monetary crisis. This cap potential to get better is now inflicting the arena to appearance to the arena to assist us face up to the cutting-edge fitness crisis. As a result, it would locate itself in a main role in terms of the healing of the worldwide economy.

COVID-19

Corona virus illness (COVID-19) is associate degree communicable disease caused by a fresh discovered virus. it's principally transmitted through droplets generated once associate degree infected person coughs, sneezes, or exhales. The droplets square measure too serious to hold within the air, and that they quickly fall on floors or surfaces. someone gets infected by inhaling the virus if you're inside shut proximity of infected one who has COVID-19. This illness has created a mayhem worldwide inflicting human deaths that square measure increasing day by day and nonetheless some relief for the recovery rate within the Corona virus patients.

Information & Communication Technology

ICT refers to technology that offer get entry to records through telecommunications. It is comparable to Information Technology (IT), however focuses in most cases on conversation technology. This consists of the Internet, Wi-Fi networks, mobile phones, and different conversation mediums. Information and conversation technology have furnished society with a tremendous array of latest conversation capabilities. Modern records and conversation technology have created a "worldwide village," wherein human beings can talk with others the world over as though they had been residing subsequent.

Research Methodology

1. Universe of study: The universe of study is open to all states.
2. The sample design: The survey is focused on views of college students, academicians, industry personnel, etc on ICT.

The Sample Frame for Collecting Primary Data Shall Be as Follows

S.N.	Selected category	No. of respondent
1	Individuals	136
	TOTAL	

Research Design

The current is based on the primary data collected from 136 respondents at National level. A well-structured questionnaire was designed to collect the information from the respondents; the questionnaire was designed to study about the perception of the individuals on ICT who are working in different work sectors all over India.

Collection of data

The collection of data is divided into two sub parts that is primary and secondary data. In this primary data consist of the data collected through questionnaires, surveys the secondary data is collected through internet, reports, books published, articles etc.

1. **Primary Data:** A primary survey was conducted at National Level. The whole survey was conducted online through Google Forms.
2. **Secondary Data:** Secondary data is collected through the internet, reports, books published, articles etc.

Demographics

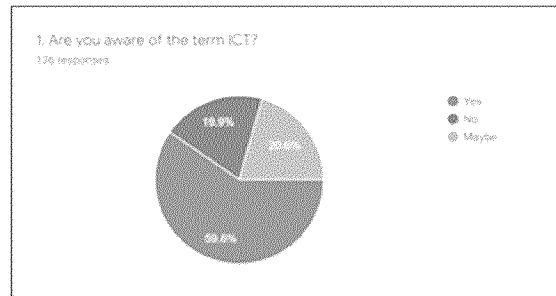


Figure number-1

According to the above figure there are 59.6% respondents who are aware about ICT, 20.6% respondents are not much aware and 19.9% respondents don't now about the term ICT.

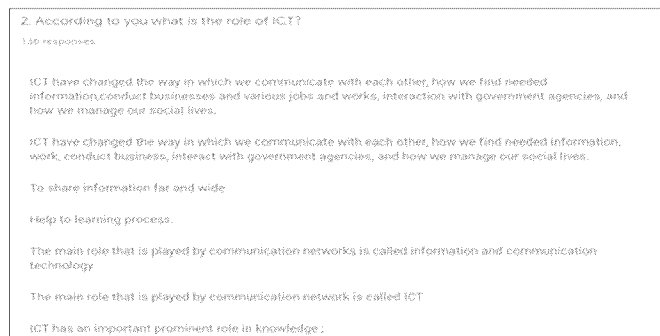


Figure number-2

According to the above figure, major respondents have answered their views on the role of ICT

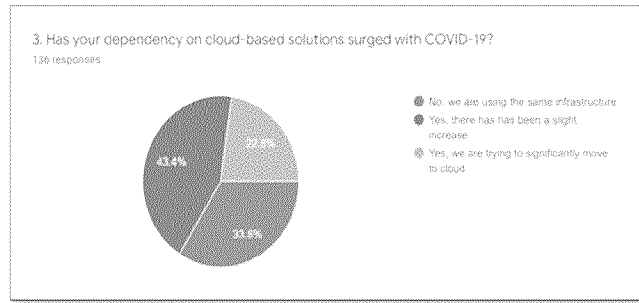


Figure Number-3

According to the above figure there are 43.4% respondents have agreed on the use of Cloud-based solutions, 33.6% respondents are still using the same infrastructure and 22.8% respondents are making the move towards the cloud.

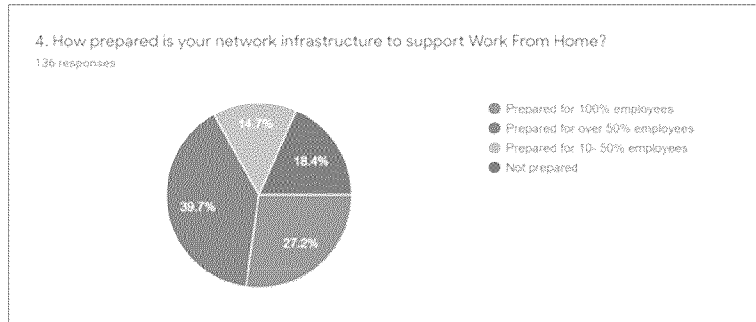


Figure number-4

According to the above figure, 27.2% respondents are prepared for 100% employees to support Work from Home, 39.7% respondents are prepared over 50% of employees, 14.7% are prepared for 10-50% employees and 18.4% are not prepared with the network infrastructure for Work from Home.

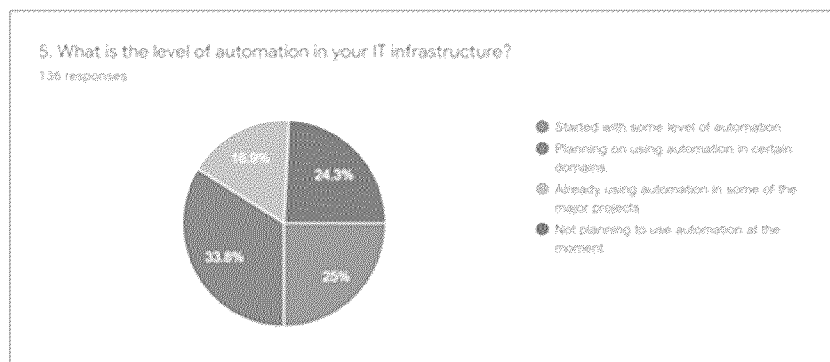


Figure number-5

According to the above figure there are 25% respondents have started using the automation, 33.8% are planning, 16.9% are already using it and 24.3% are not planning to use automation.

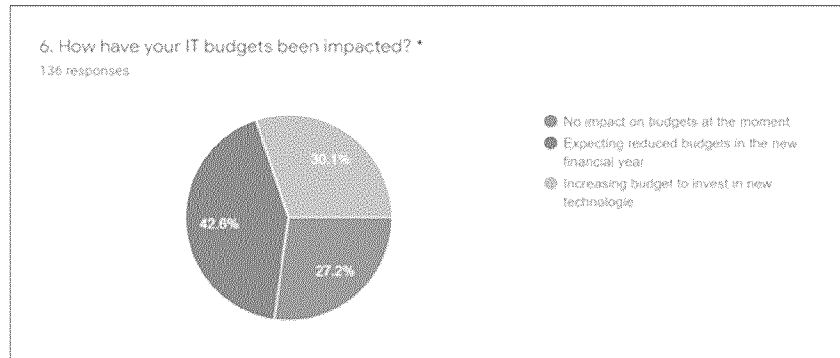


Figure number-6

According to the above figure there are 42.6% respondents expected the reduce in budget, 30.1% stated the increase in their budget for investing in new technologies and 27.2% respondents say NO impact on their budgets.

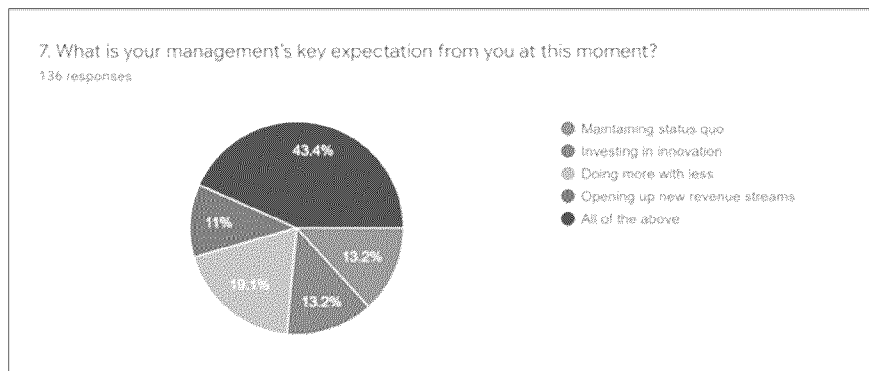


Figure number-7

According to the above figure there are 43.4% respondents select all the mentioned options, 11% for opening the new revenue, 19.1% are doing more with less, 13.2% are investing in innovations and 13.2% are maintaining status quo.

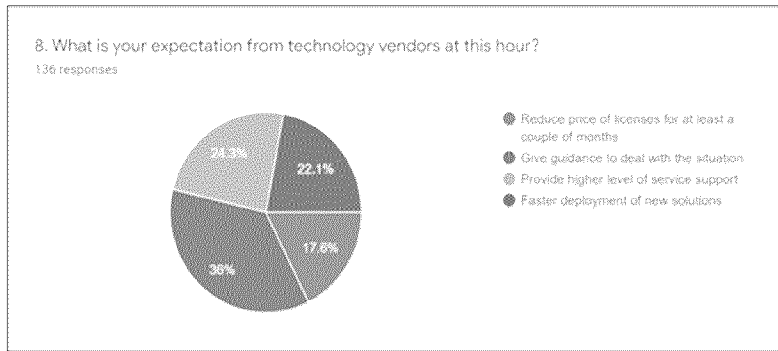


Figure number-8

According to the above figure there are 17.6% respondents expect the decrease in the cost of licenses, 36% expect to give guidance to deal with the situation, 24.3% state to provide higher level of service support and 22.1% expect the faster deployment of new solutions.

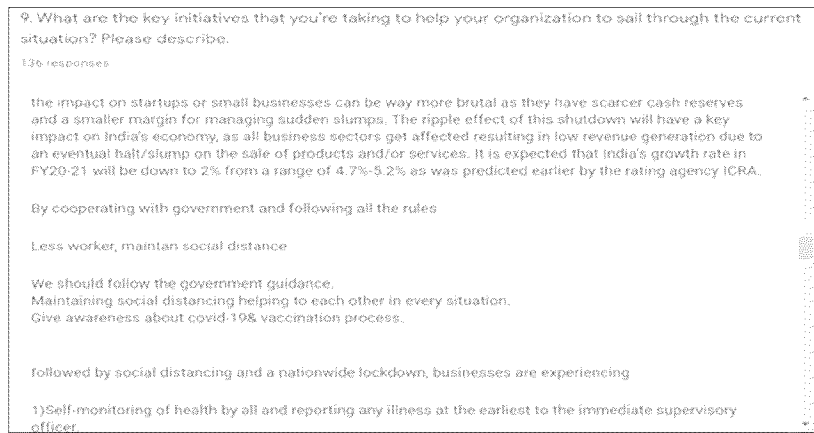


Figure number-9

According to the above figure. It states the keys initiatives taken at their respective organization

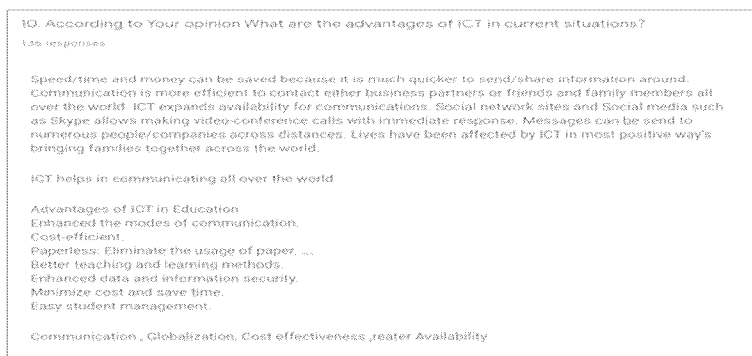


Figure number-10

According to the above figure it states the advantages of ICT in Post COVID-19 situation in their opinion.

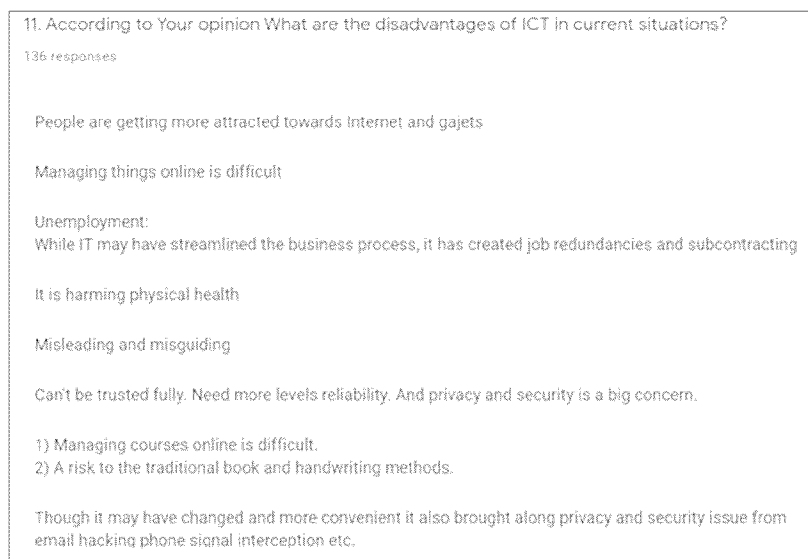


Figure number-11

According to the above figure it states the disadvantages of ICT in Post COVID-19 situation in their opinion.

Findings

1. It has been found that still 19.9% respondents are not aware about the term ICT.
2. Every individual has different opinions about the role of ICT.
3. 43.4% individual is using cloud-based service and still some are not ready to use cloud-based services.
4. 18.4% are not prepared with the network infrastructure for Work from Home.
5. 24.3% organizations are not yet ready to plan to automate the work.
6. The IT budgets are impacted due to these COVID-19 situations which has increased their expenses on technology.
7. The management is expecting managing the status quo, investing in newer technologies, etc.
8. Reduction in the cost of licenses required for the installation of new technologies & training the same to the employees.
9. There are some advantages as well as some disadvantages observed on ICT.
10. Lots of work on teacher side and lack of focus on learner's side.

Suggestions and Recommendations

1. Working from home and planning new ideas how to improve our working relationship connection to lower-level management
2. The impact on startups or small businesses can be way more brutal as they have scarcer cash reserves and a smaller margin for managing sudden slumps. The ripple result of this closing can have a key impact on India's economy, as all business sectors get affected leading to low revenue generation because of associate ultimate halt/slump on the sale of product and/or services. it's expected that India's rate in FY20-21 are right down to a pair of from a variety of four.7%-5.2% as was foretold earlier by the rating agency ICRA.
3. Enhanced the modes of communication.

Limitations

1. Sample size was limited to National level because of the time constraint.
2. Identifying the census related to the help provided to the people.

Conclusions

The study shows the impact the COVID-19 has done on the IT sectors as well it has affected the employability too. Measures to implement the use of ICT can be increased with minimum expenses which will help the organizations to gain and maintain their management status quo, employee satisfactions, etc. The security measures can be implemented to prevent the privacy, confidentiality of the data.

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3. Post COVID-19 Situations in Higher Education

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Abstract

The COVID-19 Pandemic Has Set To Change The Globe Previous We All Know. The Thinking Of Our Government, Establishments, Organisations And Other People Has Drastically Modified. From Several Economic Sectors, The Higher Education Sector Has Undergone And A Tectonic Shift And Its Undergoing. Unfold Of Pandemic Covid-19 Has Drastically Affected Each Aspects of Human Life Together With Education. It Is Created Anunexampled Check On Education. In Several Instructional Establishments Round The World, Campuses Are Closed And Teaching-Learninghas Affected Online. Internationalization Has Caught Up Significantly. In India, Concerning Huge Number Of Learners Stopped To Attend Schools/Colleges And Every One Instructional Activities Going To Finish. Despite Of These Challenges, The Higher Education Establishments have Reacted Completely And Managed To Confirm The Continuity Of Teaching-Learning, Analysis And Repair To the Society With Some Tools And Techniques Throughout The Pandemic. This Text Highlights On Major Impacts Of Covid-19 On Heisin Republic Of India. The Covid-19 Pandemic, Has Given Different New Methods Of Learning, New Views And New Trends Are Emerged. So, Few Of The Post Covid-19 Trends Which May Allowimagining New Ways Of Teaching Learning Of Higher Education In India Are Discussed. Some Important Suggestions Are Also Givento Carryouteducational Activitiesduringthe Pandemicsituation.

Keywords - Post COVID-19, Higher Education, Pandemic, Research, COVID-19, Establishments

Introduction

Minimum For Next Twenty Years, Education And Technology Consultants Predicting Than Technology Can Become The Most Important Pathway Of Teaching Learning Processes. Because Of The COVID-19 Pandemic, Number Of Students Across The World Are Driven Out Of Their University Areas, And Professors Are Confined Their Homes. COVID-19 Infection

Was Reported Originally From Urban Centre, China In Late Dec 2019 And Quickly Unfold Throughout The Glob And Was Declared A Pandemic By The World Health Organisation On Eleventh March 2020 (WHO, 2020). The COVID-19 Happening A Devastating Impact On Human Life And Shattered Economies Round The World (Xiang Et Al., 2020) With A Huge Jolt To The Education Systems Both In Developed And Developing Countries. The COVID-19 Pandemic Quickly Reason For The Closure Of Universities And Faculties Round The World With Government Directions To Follow Social Distancing That Might Facilitate To Flatten The Infection Curve And Scale Back Total Fatalities From The Malady. The Foremost Necessary Pandemic Precaution Referred To As “Social Distancing” Or “Physical Distancing” Has Tried To Scale Back Social Contact And Thereby Minimise The Sort Of Community Transmission That Might Develop Quickly In Dense Social Networks Just Like The University Field (Weeden& Cornwell, 2020).

Revolution of Digital Technology for Elearning and Virtual Education

The Impact On Teaching Has Been Dramatic And Transformative And A Standard Trend In Education Systems Round The World Has Been To Retort To The Pandemic With “Emergency Elearning” Protocols, Marking The Speedy Transition From Face-To-Face Categories To On-Line Learning Systems. The Tutorial Establishments Face A Challenge To Adapt To The Current Amendment And Making An Attempt To Settle On The Proper Technologies And Approaches For Educating And Fascinating Their Students. The Field Closure And Unforeseen Switch From In-Person Face To Face Education To Remote Directions Is Simply A Baby Step Experiment Within The Long Journey To Giving On-Line Education That As Well As Effective Student Engagement Tools And Teacher Coaching. This Could Pave For Stronger Bonds Between Universities, On-Line Education Firms, And Technology Suppliers Post-Pandemic. The Schools Can Get To Pay Serious Attention To Having Educators Trained And Equipped With Digital Technology For A Sleek Teaching-Learning Method. The Government Can Need To Improve And Plan To Sustained Programs For Skilled Development To Spice Up Educators Teaching Capabilities. The Pandemic Has Exposed The Vulnerabilities And Shortcomings Of This Education System And Has Additionally Stressed The Requirement For Digital Acquirement Development, Notably In Times Like These, For Each Developed And Developing Countries. The Larger Medical Aid Of Academic Services And Communication Might Become A Norm Post-Pandemic. This State Of Affairs Has Challenged Deeprooted

Notions Concerning The Role Of Upper Education Establishments In Providing Quality Education, Mode Of Delivery, Accessibility, The Importance Of Womb-To-Tomb Learning, And Educator's Perceptions Concerning The Kind Of Learners. This Could Offer Insight To The Educators And Policymakers For The General Improvement Of The Education Systems Round The Globe. Counting On And Adapting To Elearning Throughout A Scourge Might Cause A Shift In Adopting Additional On-Line Parts Within The Teaching By The Educators. This, However, Has Several Sensible Issues And Limitations, In Terms Of Accessibility Of Digital Technologies For Education. There's A Massive "Digital Inequality" That Exists In Society. One Cannot Assume That Each One Students, In Addition As Educators, Would Have Access To Web Property And Associated Powerful Devices Outside Of Their University, To Be Ready To Communicate. Affordability Is Another Issue To Limit The Access To Elearning With Students From Economically Weaker Sections Facing A Larger Burden. The Impact Of Accessibility And Affordability Will Have Serious Implications On Students In Teaching System Unless Student-Friendly Government Policies Area Unit In Situ Which Might Guarantee Affordability And Accessibility Of The Net To Students. The Scholars Face Major Hurdles With Remote Learning As Face-To-Face Communication Is Additional Contributing To The Educational Method, Presenting A Stronger Chance To Sharing Information And Posing For Facilitate, "Easier" And Additional Interactive (Miliszewska, 2007). The Sociableness and Sense of Happiness Area Unit Limited During A Virtual Category. The Scholars World Health Organization Have Less Ability To Self-Regulate Or Study Autonomously Struggle With No Teacher Providing In-Person Support. The Web Videos, Digital Content, And Discussion Forums Might Not Offer A Holistic Teaching-Learning Outcome.

Many Civil Liberties Teams And Activists Have Progressively Raised Apprehensions Over The Privacy And Police Work Implications Of Many Variant Students Being Forced Onto Industrial Code That Has Not Been Properly Tested And Vetted For Academic Uses. The Unforeseen Shift To Adapt And Implement On-Line Learning Has Diode To Over-Work, Stress Among The Teaching School. The Educators Got To Re-Imagine Modes Of Info Designing, Development Of E-Content, Assessment, And Reportage Which Can Are Developed While Not Correct Designing And Forethought. To Realize Additional Focussed Learning Outcomes And Develop Effective Elearning Ways, Educators Ought To Be Supplied With Skilled Autonomy And Trusty With Their Judgment; And Guarantee Clear And Compassionate Communication

With All The Stakeholders Of The Upper Education. One May Argue That Remote Learning Might Supply A Plus For People World Health Organization Area Unit Unable To Attend A Conventional Regular Face-To-Face University Thanks To Personal Or Money Circumstances. Also, The Flexibleness Of Asynchronous Remote Learning Might Offer Wider Access. And Even Inside Ancient Teaching Establishments, Hybrid Or Merging Forms Might Facilitate Improve The Standard Of Face-To-Face Teaching By Moving Content Delivery On-Line And Focusing In-Person Sessions On Active Learning (Bowen, 2012; Riffiee, 2003). These Various Reactions Highlight That There Area Unit Continually Wider Connotations And Unwitting Consequences Of Any Adoption Of Technology In Education. So, COVID-19 Post-Pandemic, All Universities And Better Education Establishments Got To Ruminare Concerning The Implications Of Their Decisions And Selections On The Womb-To-Tomb Learning Of Scholars, Which Is Able To Ultimately Form The Long Run Of This Generation.

Opportunities in Research Areas and Their Implications

The COVID-19 Pandemic Forced Educational Activity Establishments And Universities To Adapt To The Speedily Dynamical State Of Affairs During A Means That Was Inconceivable A Couple Of Months Ago. Analysis Establishments Face Large Challenges In Managing Analysis Operations. The Necessary Social Distancing Necessities Are Tough To Fulfill During A Analysis Setting Significantly Within The Areas Requiring Bench Work And Human Subjects, In Addition As Fortification, Ar Inflicting Vital Losses To Analysis Studies. Most Of This Has Affected scientists, Faculty, Analysis Students, And Graduate Students. The Career Arranges Of The Many Research Students And Postdoctoral Researchers Are In Danger Due To This Interruption In Their Research Plan By The Pandemic. The Schools And Funding Bodies Are Underneath Monetary Strain Within The Returning Months And Therefore The Non COVID Comes Might Lose Importance And Focus From These Agencies. The Accomplishment Of International Workers And Therefore The Exchange Of Expert Researchers May Be A Large Challenge Which Can Still Exist For The Approaching Months Thanks To Travel Restrictions.

The Analysis Establishments And Universities Have To Be Compelled To Rigorously Style And Implement The Analysis Management Pointers That Adhere To Social Distancing Protocols And Guarantee Low Student Density On Campuses Whereas Steering The Analysis Activity Towards Normalcy. The Analysis Areas That Need Physical Laboratories Might Have To Re-Think Their Operating Models And Thoroughly Arrange And Order Their Experiments.

The Schools Can Need To Invest A Lot Of In Health And Safety Measures And Infrastructure On Their Campuses To Confirm The Security Of Scholars And Workers Which Can Augment The Monetary Strain On The University. The Govt. Might Support And Part Fund The Security Initiations Of The Tutorial Establishments To Forestall The Comprise Of The Tutorial And Analysis Desires Of The Scholars. Because The COVID-19 Pandemic Is Progressing Speedily, Significantly Currently Within The Developing Economies, The Analysis Laboratories And Company Homes Round The World Ar Sport Against One Another To Search Out A Treatment Modality For The Virus. This Has Semiconductor Diode Researchers To Specialize In Sure Key Problems Related To The COVID-19 Infection That Would Facilitate Within The Understanding Of The Unwellness And Assessing The Psychological Implications Of This Pandemic. A Number Of The Key Areas Of Analysis Which Can See A Surge In Funding Post-Pandemic Embrace Immunogen Development, Antiviral Therapies, Development Of Health Care Instrumentality, Health Devices, Remote Learning Tools, Computing Primarily Based Technologies, Use Of AR, VR, And Optics For Coaching, And Capability Building And Public Health Policy (Haleem Et Al., 2020). Also, Analysis Areas That Don't Need The Physical Presence Of The Man Of Science Might Even See A Lot Of Growth As Students Might Like These Programs To Reinforce Their Skills For Poststudy Job Placements.

Conclusion

The New Total Technology-Mediated Education Will Be Termed As Education Four.0, Once The 3 Waves Of Education Systems That Evolved Over 2000 Years Of Civilization- The Gurukulasystem (One Master To Few Pupils), The Normal University System(One Teacherto Several Learners) And Distance Learning (One To Terribly Many Learners Across The Spectrum).There Are Not Any Best Practices For Universities And Better Academic Establishments To Mimic And No Illustrious Models To Follow. Post-Pandemic Academic Establishments Might Have To Spot The Problems That They Will Face And Prepare To Require Powerful Selections Within The Returning Months. The University Communities Can Have To Be Compelled To Replicate On Their Academic Vision And Mission To Confirm Student Learning Outcomes And Standards Of Educational Quality Don't Seem To Be Compromised. The Schools Can Need To Have Interaction And Consult All Their Stakeholders Within The Nuanced Levelling Of Economic Prices And Public Health That Are Tangled With Missions Of Education, Data Creation, And Repair To Society. The Higher Academic Establishments Should

Be Prepared For A Troublesome Road Ahead Post-Pandemic Wherever Their Selections Can Form And Steer The Long Run Of Their Students.

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4. A Study on Post Effect of COVID-19 Situations in Education

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Abstract

The COVID-19 pandemic has led to a downfall in the world economy by giving a hard hit to the education sector; due to sudden closure of campuses with social distancing being in place has increased use of technology. This paper reflects the post effect of COVID-19 on Education system and the new methods adopted in education system. We also studied on the problems faced by the teachers and students during the virtual mode of education including the initiative taken by State/National governments turned to conducting virtual learning models for effective delivery of education. It is now in the nerves of the higher education attaining groundbreaking and remarkable results. It has also increased the creative skills amongst the students with the enthusiasm towards studies through revolutionary reforms in the education. This paper is first in the field to draw a big picture on the post effect of COVID-19 on education.

Keywords: Covid-19, education, technology, virtual, studies, etc

Introduction

Coronavirus reported its first case late November 2019 in Wuhan, China. Later the virus was spread all round the world with the toughest of situations human life ever came across and was declared as a pandemic by the (W.H.O) in early March 2020. It spread through physical contact and public gatherings so it was the need of the time to shutdown all the educational institutions and classes to avoid the spread of it, as social distancing was the only way to decrease the spread of coronavirus until the vaccine was found. When the country was under lockdown and educational institutes were shutdown, virtual mode of learning (i.e. e-learning) was promoted on larger scale as a medium to conduct classes for students. Many new methods and techniques have been adopted in the education system such as virtual classes, online courses,

recorded videos, and visualization etc. Some online free courses were also provided by the State/National governments for the students so that they can learn new project building ideas though it that too free of cost.

Rise of E-Learning and Virtual Education

The coronavirus has made an enormous impact on the education system which has been very dramatic and transformative too by replacing the common trend of education with “emergency e-learning”. Online education made a rapid transition from face-to-face interaction with online learning system. The educational institutions face a challenge to adapt to the present change and trying to settle on the proper technologies and approaches for educating and interesting their students. The shutdown and sudden switch from face-to-face education to remote instructions is simply a baby step experiment within the long journey to offering online education which incorporates effective student engagement tools and teacher training. This may pave for stronger bonds between universities, online education companies, and technology providers post-pandemic. The schools are needed to pay serious attention to having educators trained and equipped with digital technology for a smooth teaching-learning process. The current situation has challenged deep-rooted nations about the work of upper education institutions in providing quality education, mode of delivery, accessibility, the importance of lifelong learning, and educator’s perceptions to the scholars. This might provide insight to the educators and policymakers for the general improvement of the education systems around the world. Many civil liberties groups and activists have increasingly raised apprehensions over the privacy and surveillance implications of many students being forced onto commercial software that has not been properly tested and verified for educational uses.

The sudden shift to adapt and implement online learning has led to over-work, stress among the teaching faculty. The educators got to re-imagine modes of curriculum planning, development of e-content, assessment, and reporting which can be developed without proper planning and forethought. To realize more focused learning outcomes and develop effective eLearning methods, educators should be given professional autonomy and trusted with their judgment; and ensure clear and compassionate communication with all the stakeholders of the upper education.

Focus on Specific Research Areas and its Implementations

The COVID-19 pandemic forced education institutions and universities to adapt to the rapidly changing situation in a way that was unimaginable a couple of months ago. Research institutions are facing huge challenges in managing research operations. The mandatory social distancing requirements are difficult to satisfy during a research setting particularly within the areas requiring bench work and human subjects, as well as fieldwork, are causing significant losses to research studies. Most of this has affected scientists, faculty, research scholars, and graduate students. The career plans of many research students and postdoctoral researchers are in danger thanks to this sudden interruption in their research plan by the pandemic. The universities and funding bodies are going to be under financial strain within the coming months and therefore the non-covid projects may lose importance and focus from these agencies. The recruitment of international staff and therefore the exchange of skilled researchers may be a huge challenge which can still exist for the coming months due to travel restrictions. The research institutions and universities got to carefully design and implement the research management guidelines that adhere to social distancing protocols and ensure low student density on campuses while steering the research activity towards normalcy. The research areas that require physical laboratories may have to re-think their working models and punctiliously plan and prioritize their experiments. The universities will need to invest more in health and safety measures and infrastructure on their campuses to ensure the security of scholars and staff which can increase the financial strain on the university. The government may support and partly fund the security initiations of the tutorial institutions to prevent the compromise of the educational and research needs of the students.

Research Methodology

1. Universe of study: The universe of study is Maharashtra state.
2. The sample design: The survey is focused on the Post effect of COVID-19 in Education

The sample frame for collecting primary data shall be as follows

Sr.No	Category	Responses
1	Individuals	89
	TOTAL	89

Research Design

The current is based on the primary data collected from 89 respondents from the Maharashtra State. A well-structured questionnaire was designed to collect the information from

the respondents; the questionnaire was designed to study about the Post COVID-19 situations in Education.

Demographic

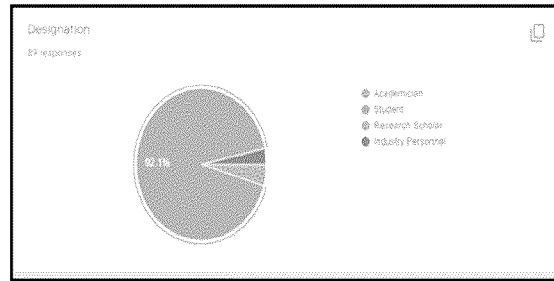


Figure no.1

According to the above figure there are 92.1% respondents who are the student, 4.5% are Academician, 3.4% are the Industry Personnel

Questionnaire

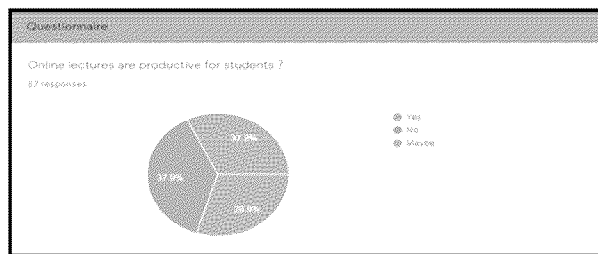


Figure No.2

According to the above figure there are 29.9% respondents saying YES that online lectures are productive for students, 37.9% respondents are saying NO that online lectures are not productive and 32.2% respondents are not sure about it.

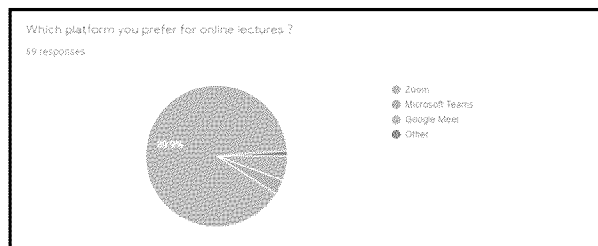


Figure No.3

According to the above figure 90.9% respondents are using google meet for online lectures, 5.6% respondents are using zoom for online lectures, 3.4% respondents are using

Microsoft Teams for online lectures and 1.1% respondents are using other platforms for e-learning.

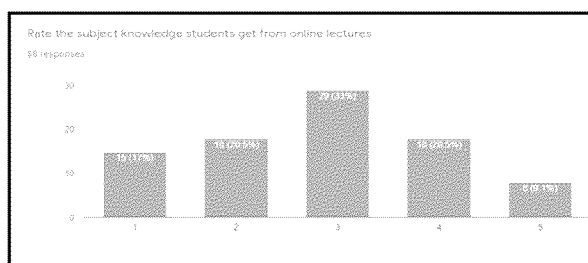


Figure No. 4

According to the above figure 17% respondents feel that the students get the lowest of the subject knowledge through online lectures and 9.1% respondents feel that the students get the highest of the subject knowledge through online lectures.

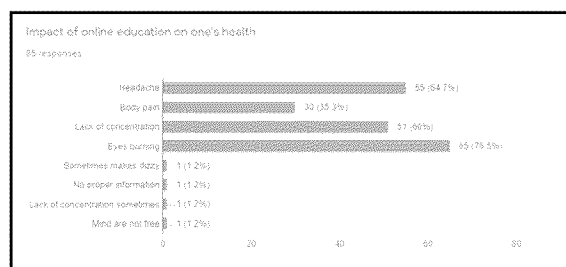


Figure no.5

According to the above figure 76.5% of the respondents face Eyes burning as a health issue during online lectures, 64.7% and 60% of the respondents face headache and lack of concentration problems respectively during online lectures and 35.3% respondents face body pain as health issue during online lectures.

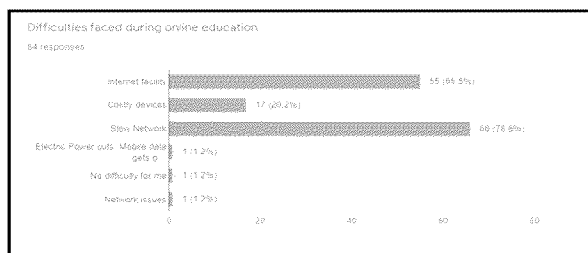
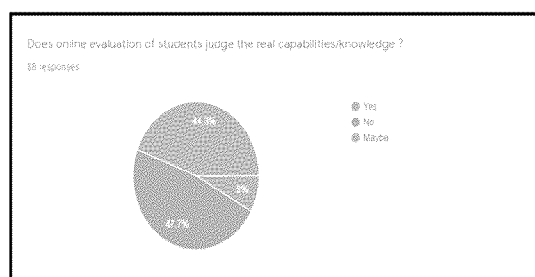
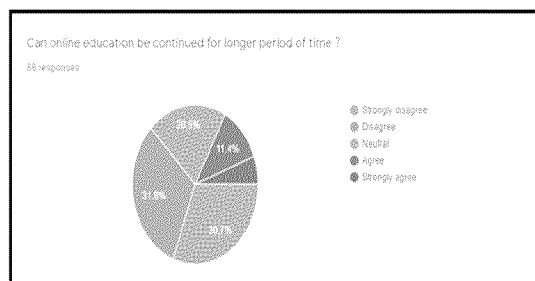


Figure no.6

According to the above figure 78.6% respondents face slow network issues during online education, 65.5% respondents face internet facility issues during online education and 20.2% respondents faced costly devices issues during online education.

**Figure no.7**

According to the above figure 47.7% respondents feel that online evaluation of students can't judge their real capabilities, only 8% respondents feel that online evaluation of students can judge their real capabilities while 44.4% respondents are not sure about it.

**Figure no.8**

According to the above figure 30.7% and 31.8% respondents disagreed for continuing online for a longer period, 20.5% respondents are having neutral thoughts on continuing online for a longer period remaining of the respondents are agreed for continuing online for a longer period.

Findings

- People in some rural areas are still unaware about the latest technologies.
- Costly devices and high internet cost is difficult to be affordable for low-household.
- Many mental and physical health issues due to continuous use of electronic devices.
- Improper infrastructure for students and lack of knowledge amongst teachers & students about e-learning.
- Governments should promote more free education learning platforms for students from poverty-stricken families.

Limitations

1. Sample size was limited to Maharashtra State because of the time constraint.
2. Identifying the census related to the help provided to the people.

Conclusion

There aren't any best practices for universities and better academic establishments to mimic and no legendary models to follow. Post-pandemic academic establishments might have to spot the problems that they'll face and prepare to require robust selections within the coming back months. The university communities can have to be compelled to reflect on their academic vision and mission to make sure student learning outcomes and standards of educational quality don't seem to be compromised. The colleges can have to be compelled to interact and consult all their stakeholders within the nuanced reconciliation of economic prices and public health that are tangled with missions of education, information creation, and repair to society. The upper academic establishments must be prepared for a tricky road ahead post-pandemic wherever their selections can form and steer the long run of their students.

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5. Post COVID-19 Situation in Research & Innovation and Pediatric Research:Review

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Abstract

Research and development unit is at crucial levels to confirm a property an inclusive recovery, whereas boosting the resilience of our production sectors, the aggressiveness of our economies and therefore the transformation of our socio-economic systems. The impact of COVID-19 on research at current time of the pandemic, the importance and challenges of pandemic research, and therefore the importance of a pediatrician-scientist personnel area unit all highlighted by this epic pandemic. As we tend to navigate through and on the far side this pandemic, which can have a long impact on our world, together with research and therefore the medicine analysis enterprise, it's necessary to acknowledge and address opportunities and methods for, and challenges of analysis and strengthening the pediatrician-scientist workforce.

Keywords - R&D, COVID-19, medicine research, pediatrician-scientist.

Introduction

The impact on analysis current before COVID-19 was speedy, dramatic, and little question are going to be long run. The pandemic curtailed most tutorial, industry, and government basic science and clinical analysis, or redirected analysis to COVID-19. Most clinical trials, except those testing life-saving therapies, are paused, and most continued trials area unit currently closed to new enrollment. Current clinical trials are change home administration of treatment and virtual monitoring to attenuate participant risk of COVID-19 infection, and to avoid abusive care resources from pandemic response. additionally to short- and long-run patient impact, these analysis disruptions threaten the careers of physician-scientists, several of whom have had to shift efforts from analysis to patient care. to shield analysis current, further as physician- mortal careers and therefore the analysis personnel, current support is crucial. In the long run, it's possible that the pandemic can force reallocation of analysis bucks at the expense of analysis areas funded before the pandemic. it'll be additional necessary than ever

for the medicine analysis community to interact in discussion and choices relating to prioritization of funding goals for dedicated medicine analysis and significant inclusion of youngsters in studies. The recently free 2020 National Institute of kid Health and Development (NICHD) strategic set up that engaged stakeholders, together with scientists and patients, to form the goals of the Institute, would force would force best chart a path toward restoring normalcy inside medicine science.

The Role of Research in COVID-19 Situation

Research and innovation actions area unit an important a part of the coordinated EU response to the general public health threat of Covid-19. They channel public and personal investments and align funding and investment streams to underpin the Recovery. within the current context, we'd like science-driven solutions, together with higher scientific understanding of the virus further because the development of vaccines, treatments and nosology. R&I additionally provides the technologies that give safer and quicker pursuit of the virus. In world emergencies, like the Covid- nineteen pandemic, it's essential to get rid of all obstacles to the free flow of knowledge, researchers and ideas. Full, timely and honest access to scientific info and analysis results throughout crises for researchers, journalists, medical workers and every one voter is of outer importance for correct and reasonable science-based responses. Moreover, overtly accessible, machine-readable, practical knowledge is required to follow the unfold of the epidemic, and forecast its speedy evolution. Key datasets embrace clinical, medical specialty and laboratory knowledge. It's of crucial importance to speculate in stronger and additional resilient national health systems, capable of speedy and integrated responses drawing on the newest scientific discoveries, with equal access across the EU. Building on the victorious mobilization of public and personal efforts to tackle the Covid-19 eruption, the Recovery ought to accelerate the digital and ecological transformation of our societies, with a specific target the eu inexperienced Deal and giving a transparent signal to business, investors and customers. Our response to the Covid-19 crisis will either amplify or mitigate the deeper and longer-term crises that our planet is facing. the basic general amendment towards property has to emerge from science-informed style. we must always currently seize the chance to form our social group and economic recovery really transformative, by investment massively in solutions that address this crisis, however additionally accelerate the social, environmental and economic transitions that our planet and society want. In line with the eu inexperienced deal, the recovery ought to be

designed with sturdy economic incentives for firms to terminate fossil fuels and invest in development, rescale and diffusion of tumultuous technologies within the areas of renewable energy, building renovation, property quality, preservation of diversity and scheme restoration, zero pollution, toxic-free setting and property food systems. We must always still aim at shifting towards a circular and low carbon economy and securing a path to internet zero emissions by 2050. At constant time, the crisis could be a take a look at for our social protections systems and European values and therefore the recovery would force a group of labor market laws and different Social Security solutions that install a security internet for all.

The Recovery is additionally taking a look at for all governments and stakeholders to work internationally and for the EU to push transparency and trust and lead world response. International R&I cooperation and investment, via effective and tested platforms like Mission Innovation, further as science diplomacy are going to be essential for transferral along the simplest of skills and making certain clean and inexperienced impact on the post Covid-19 world worth chains. Within the context of the presently additional relaxed business stance as a response to Covid-19, and in sight of potential future crises, public investments in R&I ought to be prioritized (e.g. within the variety of investments in vaccines or therapeutics). As previous crises showed, R&D investments, each public and personal, have historically been considered adjustment variables to stand public and personal accounts, rather than as a key strategic investments to realize long-run social group and company property objectives. Estimates from decigram ECFIN and also the OECD foresee historical growth contraction for 2020, which can imply a major loss of total public and business EU R&D investments (potentially € twenty two bn if the general R&D intensity remains constant and supported the recent Spring Economic Forecasts for value growth). this might be smoothened out if public R&D investments directed towards attempt the pandemic resilience were prioritized. R&I investments should additionally contribute to regional cohesion and inclusion. The asymmetrical impact of the crisis across sectors, regions and segments of the population, together with the youth, will exacerbate regional disparities and inequalities. Investments in innovative SMEs (including start-ups) and midcaps square measure crucial for the rrecovery.

The economic downswing can doubtless have a negative impact on business' R&D and innovation. Yet, R&I investment remains a crucial driver of productivity, economic process, jobs and supports the EU's international fight. The Recovery Package ought to strengthen the

envisaged support beneath the Invest EU Programmed and notably the facilities beneath the analysis, Innovation and conversion and SMEs windows, which can play a crucial role in facilitating and fast access to debt and equity finance for prime growth, analysis and innovation driven SMEs, together with start-ups, and midcaps. within the same vein, specific attention ought to be to rising technologies and breakthrough innovations, notably dispensed by start-ups and SMEs WHO ought to receive the mandatory support via the eu Innovation Council so as to rescale. This international pandemic yet again highlights the importance of analysis, stable analysis infrastructure, and funding for public health emergency (PHE)/disaster preparation, response, and resiliency. The stakes during this worldwide pandemic have not been higher as lives square measure lost, economies falter, and life has radically modified. final COVID-19 mitigation and crisis resolution relies on high-quality analysis aligned with prime priority social goals that yields trustworthy knowledge and unjust data. Whereas the very best priority goals square measure treatment and bar, medicine analysis additionally provides knowledge crucial to manage and restore economic and welfare. Scientific and technological data and resources have not been larger and are leveraged globally to perform COVID-19 analysis at warp speed. the quantity of studies associated with COVID-19 will increase daily, the scope and magnitude of engagement is beautiful, and also the extent of worldwide collaboration unexampled.

On January five, 2020, simply weeks when the first cases of unhealthiness were reported, the genetic sequence, that that the infectious agent as a completely unique corona virus, SARS-CoV-2, was discharged, providing data essential for characteristic and developing treatments, vaccines, and medical specialty. As of could three, 2020 1133 COVID-19 studies, together with 148 associated with anti-inflammatory, thirteen to remdesivir, fifty to vaccines, and one hundred to diagnostic testing, were registered on ClinicalTrials.gov, and 980 totally different studies on the globe Health Organization's International Clinical Trials register Platform (WHO ICTRP), created doable, a minimum of partially, by use of information libraries to tell development of antiviral, immunomodulators, antibody-based biologics, and vaccines. On April 7, 2020, the government agency launched the Corona virus Treatment Acceleration Program. On Apr seventeen, 2020, bureau proclaimed a partnership with trade to expedite immunogenic development. As of May 1, 2020, remdesivir (Gilead), granted government agency emergency use authorization, is that the solely approved therapeutic for COVID-19.2 The pandemic has intensified analysis challenges. in a very rush for knowledge already thousands of manuscripts,

news reports, and blogs are printed, however thus far, there's sturdy knowledge. Some studies don't meet printed run standards, that currently embody FDA's COVID-19-specific standards, and/or square measure printed while not critique. info from studies diverts resources from development and testing of brighter therapeutic candidates and has vulnerable lives. Ibuprofen, at the start reported as unsafe for patients with COVID-19, resulted in a very shortage of Tylenol, endangering people for whom NSAID is contraindicated. Hydroxychloroquine at the start reported as doubtless effective for treatment of COVID-19 resulted in shortages for patients with response diseases. Remdesivir, in rigorous trials, showed decrease in period of COVID-19, with larger result given early. Given the restricted handiness and safety knowledge, the employment outside clinical trials is presently approved just for severe illness. Vaccines generally take 10–15 years to develop. As of could three, 2020, of nearly one hundred vaccines in development, eight square measure in trial. many vaccines square measure projected to own emergency approval among 12–18 months, presumably as early because the finish of the year, still associate degree eternity for this pandemic, however early on for long effectiveness and safety knowledge. protein testing, necessary for identification, medical specialty, and immunogenic testing, has given a number of the best analysis challenges, together with validation, timing, handiness and prioritization of testing, inter- pretation of check results, and applicable patient and social actions supported results. quiet physical distancing while not knowledge concerning check validity, duration, and strength of immunity to totally different strains of COVID-19 may have ruinous results. Understanding population variations and disparities that are more exposed throughout this pandemic is crucial for response and long pandemic recovery. The “Equitable knowledge assortment and speech act on COVID-19 Act” involves the {cdc|Center for illness management and Prevention|CDC|agency|federal agency|government agency|bureau|office|authority} (Centers for Disease Control and Prevention) and alternative Health and Human Services (United States Department of Health & Human Services) agencies to in public unleash racial and demographic data. Long-term, lessons learned from analysis throughout this pandemic may the analysis enterprise worldwide on the far side the pandemic and through alternative PHE/disasters with ways for equalization multiple novel approaches and high-quality, time- efficient, efficient analysis. This challenge, a minimum of partially, may be met by acceptable study style, collaboration, patient registries, machine-controlled knowledge assortment, artificial intelligence, knowledge sharing, and in progress thought of acceptable restrictive approval processes.

additionally, analysis to develop and judge innovative ways and technologies to enhance access to worry, management of health and unwellness, and quality, safety, and value effectiveness of care may revolutionize attention and health-care systems. Throughout PHE/disasters, crisis standards for analysis ought to be thought-about beside in progress and just-in-time PHE/disaster coaching for researchers willing to share info that might be leveraged at time of crisis. an obsessive funded core personnel of PHE/disaster researchers and funded infrastructure ought to be thought-about, doubtless as a pool of networks, that has physician-scientists, basic scientists, social scientists, psychological state suppliers, world health specialists, epidemiologists, public health specialists, engineers, info technology specialists, economists and educators to strategize, consult, review, monitor, interpret studies, guide acceptable clinical use of information, and inform choices concerning effective use of resources for PHE/ disaster analysis.

The SARS-CoV-2 virus has significantly affected the health, economy, and socioeconomic material of the worldwide society. the prices concerned within the containment and treatment of this communicable disease are extortionately high, that even the wealthiest and developed countries are finding it difficult to sustain. COVID-19 pandemic has severely compact the crude, securities market, gold and metals and most areas of the worldwide market. Massive analysis laboratories and company homes are operating with a high speed to develop medicines and vaccines for the interference and treatment of this dreadful unwellness. To handle these current health management challenges, we want a comprehensive understanding of the impact on the health system, world business, and culture. COVID-19 was declared a deadly disease by the World Health Organization on eleventh March 2020. COVID-19 has become a world emergency in an exceedingly short amount and can have long effects. There's associate degree imperative have to be compelled to establish and study the areas of educational analysis which can be compact by COVID-19.

Opportunities in Pediatrics Analysis

As reportable by the CDC, from Lincoln's Birthday to Apr a pair of, 2020, of 149,760 cases of confirmed COVID-19 within the us, 2572 (1.7%) were youngsters aged <18 years, like revealed rates in China. Severe unwellness has been rare. Of 749 youngsters for whom hospitalization knowledge is offered, 147 (20%) needed hospitalization (5.7% of total children), and fifteen of 147 needed intensive care unit care (2.0%,0.58% of total). Of the ninety five youngsters aged <1 year, fifty nine (62%) were hospitalized, and 5 (5.3%) needed intensive care

unit admission. Among youngsters there have been 3 deaths. Despite youngsters being comparatively spared by COVID-19, unfold of unwellness by youngsters, and consequences for his or her health and pediatrics attention are doubtless profound with immediate and long impact on all of society.

We have long been awake to the importance and worth of pediatrics analysis on youngsters, and society. COVID-19 isn't any exception and highlights the imperative want for a pediatrician- human personnel. Understanding variations in medicine, status, manifestations, and treatment of COVID-19 in youngsters will give insights into this infective agent, pathogen–host interactions, path physiology, and host response for the whole population. Pediatrics clinical registries of COVID-infected, COVID- exposed youngsters will give knowledge and specimens for immediate and long analysis. Of the 1133 COVID-19 studies on Clinical Trials.gov, 202 embody youngsters aged ≤ 17 years. Cardinal of the 681 interventional trials embody youngsters. With less diagnostic testing and fewer pediatrics analysis, we have a tendency to not solely endanger youngsters, however conjointly adults by not distinctive infected youngsters and limiting unfold by youngsters.

Pediatric issues and challenges associated with treatment and immunizing agent analysis for COVID-19 embody acceptable dosing, pediatrics formulation, and pediatrics short- and long effectiveness and safety. Typically, initial clinical trials exclude youngsters till safety has been established in adults. However with time of the essence, deferring pediatrics analysis risks the health of kids, notably those with special desires. Issues issue to pregnant ladies, fetuses, and neonates should even be addressed. Childhood psychological state during this demographic, already combating a psychological state pandemic before COVID-19, is currently additional challenged by social disruption, food and housing insecurity, loss of pet ones, isolation from friends and family, associate degreed exposure to an infodemic of pandemic-related info. Curiously, at the moment psychological state visits beside all visits to pediatrics emergency departments across the us are dramatically weakened. Understanding factors that mitigate and worsen medical specialty symptoms ought to be a spotlight of analysis, and ideally can end in ways for interference and management within the future, together with on the far side this pandemic. Social well-being of kids should even be studied. Specialists note that the pandemic could be a excellent storm for kid ill-treatment only if vulnerable families are currently socially isolated, facing state, and stressed, which youngsters don't seem to be beneath the watch of

mandated reporters in colleges, daycare, and first care. Many countries have ascertained a decrease in maltreatment reports and a rise in severity of emergency department abuse cases. Within the short term and future, it'll be necessary to check the impact of access to worry, incomprehensible care, and discontinuous education throughout COVID-19 on physical and psychological feature development. Training and supporting pediatrician-scientists, like through federal agency physician-scientist analysis coaching and career development programs in the least stages of career, still as fostering analysis for fellows, residents, and medical students willing to dedicate their analysis career to, or a minimum of perceive implications of their analysis for, PHE/disasters is very important for having associate in progress, still as a just-in-time surge pediatric-focused PHE/ disaster personnel. additionally to as well as paediatric consultants in collaborations and consortiums with broader population focus, thought ought to be to pediatric-focused multiinstitutional, academic, industry, and/or government consortiums with infrastructure and in progress funding for virtual coaching programs, analysis groups, and multidisciplinary oversight.

Conclusion

The impact of the COVID-19 pandemic on analysis and analysis in response to the pandemic once more highlights the importance of analysis, challenges of analysis notably throughout PHE/ disasters, and opportunities and resources for creating analysis a lot of a lot of and price effective. New paradigms and models for analysis can hopefully emerge from this pandemic. The importance of building sustained PHE/disaster analysis infrastructure and {a analysis|a search|an enquiry|a quest|a pursuit|a probe|an exploration|a groundwork|a hunt|a analysis|a look} personnel that has coaching and funding for medical specialist-scientists and integrates the pediatrician research personnel into high-quality research across demographics, supports the pediatrician-scientist personnel and pipeline, and benefits society.

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6. Outbreaks of Covid-19 in India and their Impacts on Education System

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Abstract

COVID-19 disease is considered the pandemic disease by WHO. The impact of this disease shown in all sectors in worldwide, mostly in developing countries it shows very bad effects in educational, industrial, economic sectors etc. Due to Lockdown situation the entire education systems is like stop in developing countries like India. Positive impact of this condition is all are turned into the online mode of education. This change is not a simple but also expensive for the peoples are live in developing country. Because our education system is preferred conventional mode, and due to this pandemic, they can turn into online within few days. First the system is totally confused but after some time it learn use of technology in education and start the online learning from various platforms. The impact of the COVID-19 is negative as well as positive in all over the world. Economically lower-class parents cannot afford the virtual platforms to their children's. Due to this reason many students are outflow from the education.

Keywords - COVID-19, Pandemic, Education.

Introduction

The extensive pandemic of coronavirus disease 2019 (COVID-19) generate by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first of COVID-19 in India, which started from China, was recorded on 30 January 2020(Perappadan and Bindu Shajan, 2020). The World Health Organization (WHO) specified the disease "COVID-19", they which is precise for coronavirus disease 2019. Anew identified virus similarlylike to bat and pangolin coronaviruses (Zhang T, et al. 2020).The virus transmission mainly through the air when people are closeby physically. It departs an affected person as they cough, sneeze, speak, breathe and go in another person through their mouth, nose and eyes. They can also transmission via contaminated surfaces. Viral affected peoples remain for few to two weeks and can spread the

virus also if they do not have appear any signs. This virus can cause colds with major signs, like that fever and a sore throat from swollen adenoids (Liu P, et al. 2017) and can also cause the pneumonia and bronchitis (Forgie S and Marrie TJ, 2009).

The COVID-19 pandemic has changed educational systems globally, first up on to the near-total close of Educational institutions such as schools, universities and colleges. The governments decided to temporarily close educational institutions for reduce the spreading of COVID-19 (Skulmowski, et al. 2020). The lockdown has compelled various educational institutions to break off their classes, internships examinations, etc. and to prefer the online modes. Firstly, the teachers and the students were quite confused and did not understand how to cope up with the condition of this abrupt crisis that compelled close of the many educational activities. The educators assigned work to students via internet, delivered video lectures using multiple various Apps or software like Zoom, Google classroom, Google meet, Facebook, YouTube, and OBS etc. (Dr. Pravat Kumar Jena, 2020).

Educational institutions closures impact not only on students, educators and families, but also have broad economic and societal consequences. Educational institutions break off in response to the pandemic have focused on various social and economic issues, such as online learning, internet, food insecurity, as well as childcare and health care, etc. (Karp P and McGowan M, 2020). The loss of student to educator interaction has also get students to feel less **desirous** about the integrity of their work. Students write incomplete assignments, get the answers from each other in class, or turn in nothing at all simply because education has become less important due to in this situation. Deficient of access to technology or excellent internet connectivity is difficulty to continued learning, especially for students from poor families.

Impacts of Covid-19 on Education System

Even when Educational institutions ceases are temporary, it carries high social and economic expensive. The interruption they cause affect people across colony, but their impact is more severe for poor children and their families, such as disrupted learning, compromised diet, childcare problems and indirect economic cost to families who cannot work.

2. Online Mode Learning

During COVID-19 lockdown situation, many educational institutions into the world start the conducting classes through video-communicating Apps or software such as Zoom, Google Classroom or Meet, etc. The switch to virtual teaching has highlighted the immense digital

divide across India, where millions of poor families do not have computers or Wi-Fi facility and the internet device that most students use to smartphone for online classes. Due to Pandemic situation the accept digital technologies to deliver education. Education institutions moved towards combine learning and encouraged educators and students to acquire technology savvy. The suitable technology use for virtual class rooms, e-Workshops, Web-Conferences, digital exams and assessments became common phenomenon.

Online learning had also been a problem to belongs a poor or lower middle-class family students who do not have Computers or any internet facilities. Most of the students have been facing problems in joining online classes due to connectivity problem in their area. Some courses are difficult or impossible to teach and learn through online learning platforms such as sports, nursing, laboratories, music, and art courses.

3. Unprepared Educators for Online Teaching

Online learning is a special kind of methodology and not all educators are good were ready for this sudden transition changes from face-to-face learning to online learning. Most of the teachers are conducting lectures on video conferencing platforms such as Zoom software which may not be real online learning in the absence of a dedicated online platforms specifically designed for the purpose.

4. Assessment and Evaluation of Student's Performance

The alteration from face-to-face lectures to online lectures has a serious impact on assessments and evaluation. Depends on the course type and the assessment type applying assessments and evaluation online mode is a challengeable task. So that teachers have imposed to change their assessment types to fit the online mode (Basilaia & Kvavadze, 2020). Also, laboratory tests, practical tests, and performance tests are not possible to conduct online mode. Students who do not have internet facility will suffer to take assessments and evaluations. In the assessment and evaluation of student's performance in online learning is difficult for both instructors and students particularly teaching practicum's, technical **expertise**, and the assessment of practical skills is difficult.

5. Impact on Student Life

Students basically raised related about their future career and study issues and were mainly bored, anxious, and frustrated (Harwin and Alex, 2020). They also changed some of their hygienic behaviors including regularly wearing masks and washing hands by sanitizer or soap,

and daily routine habits like leaving home and shaking hands. Online classes due to this pandemic lockdown situation had a heavy impact on different class students including part-time students, PG students, applied sciences students, students from less developed regions or areas.

6. Got Delayed payment or Fees of Educational Institutions

During lockdown period most of the parents will be facing the unemployment problems so they may not be able to pay the fees for that particular time periods which may affect the private institutes.

7. Passive Learning by Students

The sudden switch to online learning without any planning, especially in developing nations like India was not ready for online learning and the curriculum was not constructed for such a plan has created the risk of most of our students suitable passive learners and they seem to be losing their interest due to the low levels of concentration period. We are now beginning to realize that online learning could be slow as it is generating a new set of passive learners which can pose new challenges.

8. During Lockdown Loss of Nutrition Due to School Closure

During afternoon time meals are a school meal program of the Government of India, which is provide health improved nutritional food to school-age children nationwide. During lockdown situation closure of schools has serious question on the daily nutrition of students as the afternoon time (mid-day meal) schemes have temporarily been stop. Multiple different studies have noted that mid-day meals are also an important contributing factor for raised enrolment in the schools.

9. Covid-19 Impact on Employment

Various types of recruitment got postponed during COVID-19 crisis. Many job opportunities for students may also be affected with companies delaying the on board of students. Employment rate is decreased due to these pandemic situations. In India, there is no recruitment in Government sector and fresh graduate students fear removal of their job opportunities from private sectors because of this current situation. When the unemployment raises then the education gradually decreases as people conflict for food rather than education.

Conclusion

Education is the pillar of every country's development. In India, most Educational institutions including schools, colleges, and universities are closed to control the spread of the COVID-19. The school temporarily closure brings more difficulties for students, families, and teachers. In this pandemic has more impact on the education system of India. Though it has created multiple challenges, various opportunities are also evolved. India is not fully equipped to make education reach all edges of the nation through digital platforms even in rural India sufficient infrastructure is not available till now. The assessment of student's performance in online modes remains to be a challenge to both instructors and students, particularly the assessment of practical skills, technical expertise and teaching practicum.

Online learning originates to a new kind of discrimination between those who have access to internet and the main important thing that is interaction between student and instructor has also been affected. But, separate from certain challenges and looking at current situation, online studying is the only preference available to students. Digital learning is challenging task in developing countries because many parents have not themselves been to school, lack of ICT infrastructures, computers, smart phones, and television. The poor and digitally-illiterate communities with lower educational levels children with poor learning motivation are more suffering in this situation and this raises inequality.

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7. Research Paper on Post COVID-19 Situation on Economic

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Abstract

The present pandemic state of affairs in our society is extremely crucial, impact on Indian business and organization cause get loss .Domestically, the impact of the corona virus pandemic COVID-19 could lead on to holdup in domestic demand. During this pandemic many folks were loss their jobs and, many people migrate into their places. Innumerable difficulties featured by workers and students conjointly get suffered UN agency willing to different countries for studies. India's growth for next year 2020-21 is forecasted in between of five.3% to 5.7%. During this pandemic we have a tendency to really understand our weakness of economic. Covid nineteen viruses spared over the entire planet so we'd like keep yourself isolate into our homes. COVID-19 has caused severe disruption for the Indian economy. this state of affairs shows America total four-dimensional loss in our gross domestic product (GDP) .It is calculable for India's Gross Domestic Product (GDP) rate of growth to one.9 per cent for 2020-21. This can be rock bottom when Asian nation recorded rate of growth at one.1 per cent in one991-92.This pandemic is de facto affected in varied sector like sectors business & aviation, telecom, car sector, transportation square measure most compact sectors that face negative repercussion of the current disaster. within the given state of affairs, with all the retail sectors closing down their business the sustenance of the employees square measure at optimum risk. In several countries government is facilitate to corporations and organization pay quantity to support their workers.

Keywords - business and Aviation, Telecom, Auto, Government Support, GDP

Introduction

This virus isn't solely affected human cycle however conjointly varied services that is want of our existence. This pandemic is affected to producing services that cause get immense losses. The economic stress has started and can grow speedily.. once lock down is declared we'd like to follow the foundations we have a tendency to followed social distancing ends up in

productivity loss in merchandise and services however demands square measure arrived however transport isn't offered . However, imprisonment and social distancing square measure the sole efficient tools offered to stop the unfold of COVID-19.

The pandemic has modified businesses

This pandemic business and organization were faces issues and however they were realize answer for several issues. for instance once traditional state of affairs we have a tendency to square measure getting to outlets for taking grocery however pandemic state of affairs that facility is closed to our safety . Then owner can starts the net looking service and residential delivery service with unbroken in mind all social distancing rules .At some purpose they loss however when your time answer can get and post state of affairs business starts once more in slow manner.

The COVID-19 pandemic will impact in significant adverse economic crash globally.

Table 2 India GDP Trend

Year \ Quarter	2015-16	2016-17	2017-18	2018-19	2019-20
Q1	7.5%	7.2%	5.9%	7.7%	5.0%
Q2	7.6%	7.4%	6.6%	6.9%	4.5%
Q3	7.3%	7.0%	7.3%	6.3%	4.7%
Q4	7.9%	6.1%	7.9%	5.7%	

Sources: Ministry of statistics and Programme Implementation (MoSPI)

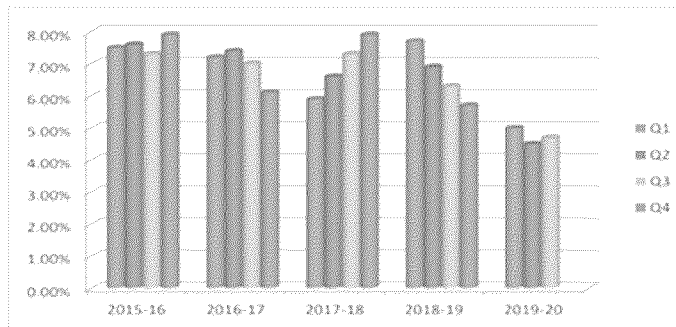


Figure 4 India GDP Trend

Author: WJ

In this paper, i exploit a linear Input-Output model to estimate the dimensions of losses that the Indian economy is probably going to face thanks to the nationwide imprisonment enforced to contain the unfold of COVID-19. The results show that betting on the length of the imprisonment; the Indian economy is probably going to face a loss of concerning 10–31% of the calculable value for year 2020-21. These estimates embody each the direct losses in specific sectors as a result of the down times they face moreover as indirect impacts on sectors as a result of their reciprocity on alternative sectors of the economy.

Auto Trade – Down, However not out

When state of affairs starts in 2019 pandemic closed all automobile trade forthwith and find down all business. Pandemic disruption can wipe billions off the automobile trade and thanks to this all profits that in line up was drift. Everywhere world twenty to half-hour profit is anticipated however not that a lot of is get. However automakers were already facing disruptions before COVID – as well as driverless cars, machine-driven factories and ridesharing – and therefore the trade will get well, it says. However post state of affairs opportunities embody for the profit.

Auto trade starts the web shift and shipping services for his or her client. and pandemic all conveyance square measure closed several numerous such a big amount of such a large amount of such a lot of} client want their own vehicles for travel and pandemic conjointly many public transport services don't seem to be started usually therefore peoples want the automobile services own vehicles therefore conclusion is demands square measure high and company is additionally notice the answer to hide up losses.

Restaurant trade – innovation still on the menu

In pandemic there square measure several hotels and restaurants square measure get closed however when some days indoor services is started like food home delivery services were menu cards square measure become solely necessitous food is out there like healthy breakfast and lunch so client get attracted and services swimmingly worked

Banking Industry – Digital Decision-Making Pays off

For banks, the pandemic has modified everything. “Risk-management groups square measure running onerous to catch up with cascades of credit risk, among alternative challenges,” McKinsey says. the corporate expects that machine-driven underwriting can inherit force for retail and small-business customers which this can scale back losses.

Insurance Trade – Merger Partners at a Premium

Mergers and acquisitions (M&A) – notably within the insurtech (insurance technology) area – are a key strategy for ancient insurers, McKinsey says.

Insurtechs and fin techs (financial technology companies) are among the foremost attentive to customers throughout the COVID-19 crisis and were the primary to launch merchandise cantered on the pandemic.

Healthcare Trade – Delivering at a Distance

Healthcare trade is just one trade UN agency get profit in pandemic and post state of affairs is additionally facilitate full for aid services . wherever several drug company corporations and hospitals and laps modified their product and everybody is concentrate on the drugs UN agency facilitate covid patient

And conjointly several corporations starts new business like creating hygiene mask and PPE kit for safety covid state of affair. that concept extremely get edges to several corporations.

India's Apollo Hospitals, that contains quite seven,000 physicians and thirty,000 alternative aid professionals, launched a digital health app, Apollo 24/7, in early 2020. among six months, the app had registered four million folks, with around thirty,000 downloads on a daily basis

Impact on Value Rate of Growth

While the COVID-19 pandemic is continually growing and showing very little signs of containment as of fifteen Apr 2020, its adverse impact on economic process of the country can in all probability be terribly serious. The global organization warned that the corona virus pandemic is anticipated to own a major adverse impact on world economy, and most importantly, value growth of Asian nation for this economy is projected to say no to four.8 per cent (United Nation 2020). Similarly, the global organization 'Economic and Social Survey of Asia and therefore the Pacific (ESCAP) 2020 according that COVID-19 would have intensive socio-economic consequences within the region with inundate activities across borders within the areas of business enterprise, trade and monetary linkages (United Nations, 2020).

Economic Survey 2019–2020 had provided advance estimates for growth in real value throughout 2019–2020 at five.0 per cent, as pictured in Table one, as compared to the expansion rate of half dozen.8 per cent in 2018–2019. The nominal value is calculable at ₹204,400 billion in 2019–2020 with a growth of seven.5 per cent over the tentative estimates of value (₹190,100 billion) for 2018–2019. (Economic Survey, 2020, p. 100) On twenty eight February 2020, the National applied mathematics workplace declared revised estimates of value growth, from eight per cent to seven.1 per cent within the half-moon, from seven per cent to six.2 per cent within the second quarter and from half dozen.6 per cent to five.6 per cent within the third quarter. anarchist Sachs calculable the expansion rate of value at one.6 per cent, declining by four hundred basis points due to 21-day imprisonment (Goldman Sachs, 2020). just in case of a fast

retraction of COVID-19 pandemic across the world by mid-May, KPMG Asian nation calculable India's value growth within the vary of five.3 per cent to five.7 per cent. In second situation wherever Asian nation controls the virus unfold however there's a major world recession, the expansion could also be between four per cent and four.5 per cent. KPMG {india|India|Republic of Asian nation|Bharat|Asian country|Asian nation} in its report calculable India's value rate of growth falling below three per cent if the virus spreads any in India associate degree imprisonment sees an extension (KPMG, 2020). Motilal Oswal analysis suggests that one day of complete imprisonment might shave off 14–19 basis points from annual growth (Oswal, 2020). Barclays according the additive conclusion price to be around US\$120 billion, or four per cent of value (Barclays, 2020). Mr Yashwant Sinha, former minister of finance of Asian nation, calculable the price of 21-day nationwide imprisonment at one decimal point of value. the worldwide recession and uncertainties of future would possibly create a two decimal point decline in rate of growth (for 2020–2021) potential.

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8. Post Covid-19 Situation in Economics

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The central and state governments are taking a number of public interest decisions to reduce the incidence of corona. The first lockdown was announced to reduce the incidence of corona in India. But it took a long time for people to realize the importance of this lockdown. Some people were walking on the streets for no reason. Also the crowd of people was as usual. The instructions given by the government were not fully implemented.

The sudden arrival of the corona shook the social, political and economic spheres. The corona virus, which came from the city of Wuhan, invaded the whole world in a huge form. Each country declared a lockdown for its protection. That lockdown had an impact on the economy of each country. Every country's economy has deteriorated. India's economy GDP reached - 23.9. The Central and State Governments are taking various measures to revive the ailing economy and bring them back to their original positions.

The lockdown has taken a heavy toll on the economic sector, the social sector as well as the cultural sector. Farmers and people in rural areas had to bear the brunt of this. The closure of small and medium enterprises has put a damper on the jobs of the poor and middle class. The hard-earned produce of the farmers could not be sold due to the lockdown. Farmers had to bear the loss as this commodity was a perishable commodity like vegetables and fruits. The farmers were starving as their livelihood depended on agriculture.

Decline in GDP

The country's gross domestic product (GDP) declined by 23.9% in the first quarter of 2020-21.

While the decline would have been 7.5% in the second quarter, it is expected to slow to 7.7% this year, which would be a shortfall. Improving economic growth is a major challenge. With the exception of agriculture, the growth of industry and services sector has been low and the contribution of agriculture has been meager and limited. This means that along with the progress of agriculture, there is a big challenge to accelerate the development of industrial goods

and services. You need to achieve at least a double-digit growth rate to build an economy of US 5 trillion. The government estimates that the growth rate will be 11% in 2021-22.

The year 2020-21 Corona epidemic has hit many countries of the world. As India is an integral part of the world and globalization, it has adversely affected our economy and economic growth. The blockade imposed on March 25, 2020, the adoption of this route by many countries of the world and the stagnation of international economic transactions resulted in a recession, adversely affecting all sectors of the economy and sub-sectors.

The Need to Improve the Economy

Many sectors and sub-sectors of the Indian economy have not seen the expected and satisfactory improvement and progress. Although the collection of goods and services tax has increased, the government has not been able to reimburse exporters. Electricity demand has increased in the agricultural sector. However, it has not grown in the industrial sector, which means that the development of the industrial sector is not improving yet. Apart from Maharashtra and Gujarat, the demand for electricity in Daman, Diu, Dadra and Nagar Haveli, Delhi, Goa, Tamil Nadu and Andhra Pradesh has declined sharply and it is clear that industry growth is not improving. Gross Domestic Product (GDP) is an important measure of economic growth. Prior to the Corona, India's GDP grew by 5.24%, 4.42%, 4.05% and 3.09% in the 2019-20 quarter, respectively, but after the Corona, it declined by 23.92% and 7.54% in the quarter 2020-21, respectively. The economy has not improved compared to last year because it is still in deficit. The current account growth in international trade, which was 3.94% in the first quarter of 2020, has declined sharply to 0.08%. This means that the state of our trade is not conducive to economic growth. Growth in the credit supply has slowed from 7.9% in 2019 to 5.7% in 2020. Therefore, growth is limited due to lack of required investment. According to the Asian Development Bank, India's economic growth in 2020-21 will be -8 per cent without money. However, this decrease will be reduced by 1%. The industrial sector is not improving yet and major industries are showing lack of progress. Job creation is a good indicator of improving the economy. In November 2020, employment fell by 0.9% to 3.5 million people and a total of 5 million people lost their jobs. As a result, people's demand will fall and economic growth will slow down further, which means it will take time for wealth and the expected economic cycle to get back on track. In addition, prices of goods and services are being raised to offset their financial losses in the balance sheet. Therefore, the issue of inflation is becoming serious. This

can be a hindrance to the growth of the economy as aggregate demand is not growing as expected, indicating that the Indian economy is not yet recovering as expected and has recovered in part, but sincere efforts are needed to keep pace.

Consequences of Lockdown

The lockdown has put many families across the country at risk. This is evident from the survey conducted under the 'Food Rights Campaign'. The income of 96 per cent people in Maharashtra has declined during this period. During this time many lost their jobs. A survey of 250 people in 10 states revealed that one in five of them had to go hungry. 12% of people sold jewelery for food. 3% of people sold their land. 49% of people had to borrow money from their relatives to buy food grains. In April-May 2020, 43% had no employment and no income due to lack of employment. Only 10% of people said their income in Lockdown was the same as before. Decreased income reduced people's living standards. The human development index fell. The Oxfame International report states that inequality in the world has further increased during the Corona period.

The Income of the Rich Increased

It will take many years for the poor to make up for the losses suffered by the poor during the Corona period. However, the wealth of the richest people in the world, including India, was growing to the Corona period. They also suffered losses but they compensated. Loss-making industries were shut down. Other employees were fired, leaving only as many as needed. All measures of cost cutting were taken.

Improving the Indian Economy

The previous quarterly audit of the Indian economy was released. It's exciting. Statistics show that the economy is coming out of the quagmire. Of course, the crisis is not over and will not be over. But the night is expected to dawn soon. The lockdown brought the economy to a standstill for a long time and it took a lot of effort to get it back on track. India immediately implemented the lockdown and launched a well-organized program to lift it. The benefits of both were felt in the health sector. Despite its vast population, Covid's invasions of India remained limited. Despite poverty, there was no famine in the country. Although billions of jobs have been lost, there has been no famine. The economic downturn hit everyone hard, with the middle class the hardest hit. Accelerating the circulation of the economy is also essential for the overall economic health of the last country on this debt. The January figures show that the body needs to

keep playing with blood, and money is playing with the economy. The gross value added index is more important than GDP, it has increased by 1%. It may seem like a 1% charge, but given the fact that GVA was down 22% in the first quarter of the lockdown and 7.3% in the following quarter, the importance of 1% growth is noticeable. It looks like this.

There has been good growth in agriculture and construction. Both of these areas are related to employment. Although manufacturing sectors have expanded, the impact of the economy has not made much difference. These figures show that it is now possible to slow down the process. Despite growth in sectors such as agriculture and construction, consumer demand has not yet increased. Citizens are not ready to spend more. This is because the middle class in many areas have lost their jobs and their salaries have gone down. As long as consumer demand does not increase, it cannot be said that the economy has recovered. Today, it seems that the loan has been given due to the generous expenditure of the Central Government. It is true that in many areas, the government has spent generously, even though fuel has become more expensive and everyone is pointing fingers at it. Expenditure on subsidies has gone up from Rs 2.27 trillion to Rs 5.9 trillion, which is a huge amount. And to make up for that, fuel taxes continue to rise. Also a large amount of loans are being taken.

The blow to the service sector is another problem facing the economy. The Indian economy is largely dependent on the services sector, which has also cooled in Kovid, which is still in its infancy. Although the private sector is booming, the unorganized sector and small businesses are still struggling. Although there is no rapid growth, there is no sign of dawn. So vaccination is very important. Public vaccination should be twice as strong as the government did to prevent covid.

And he should be supported by the citizens. The emphasis was on the government at the time of the lockdown, but not on vaccinations. Although the vaccine will not destroy the covid, it will be controlled and the fear in the minds of the citizens will go away. The mindset required for the transaction is to get it through vaccination. The recent rise in Kovid's infection has once again raised concerns. This concern and the government's tough policy are hampering the economy. What is needed now is a strict policy, not to enforce lockdown, but to vaccinate as many people as possible.

Measure Plan

The government should announce a special economic solution package for the industrial sector and implement it effectively. It will help speed up the industry and the economy as a whole. Industry development can accelerate the growth of the economy. There is a history of the world. There is a need for export growth policy by controlling imports and giving necessary impetus and encouragement. Only then can international trade become an effective tool for development. Employment should be given priority in job creation and employment friendly economic policy should be prepared and implemented. This will help in improving the economic cycle by increasing the demand of the people and the Mahatma Gandhi Employment Generation Scheme needs to be made dynamic. Expenditure on social sectors such as education, health, infrastructure and social welfare will help build the economy.

The 'Atma - Nirbhar Bharat' campaign is aimed at making India a bigger and more important part of the global economy. The 'Atma - Nirbhar Bharat' scheme was first mentioned during the announcement of the covid-19 epidemic-related financial package. Economy, infrastructure, technology systems, clear science and demand are the pillars of the 'Atma Nirbhar Bharat' campaign. The objective of the campaign is Liquidity infusion and direct cash transfer for the poor. The reason why no country has come up with a complete solution to the corona is because there is very little scientific information available about the genetic makeup of viruses. Therefore, the cycle of patient decline and patient growth is seen in different countries as it is seen in India. To prevent it, vaccination, limited prevention and precautionary measures must be implemented honestly. As much as the lockdown does not prevent the virus, it does far more damage to the economy, to the masses. To avoid this, it takes time to decide and follow through on all security transactions instead of worrying.

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9. Research Paper on Post COVID 19 Situation in Sports & Culture

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Abstract

The Covid-19 pandemic has terribly dangerous impact on sports and cultural event. Once pandemic is proclaimed everywhere world each events get off for safety. Year 2020 is Olympic year each wherever sports player is prepared to play for Olympic however suddenly state of affairs gets modified and each sports and large events get off or postpond . Among the foremost distinguished events to be affected were the 2020 Summer athletic competition, Expo 2020, UEFA monetary unit 2020 and Copa América 2020 that are delayed to 2021,[3][4] and also the Eurovision Song Contest 2020, that was off entirely. Variety of events are changed to get rid of a live audience or to be strictly command over. When once state of affairs is become traditional their are going to be new starting is here to starts once more.

In each sports and culture an event government has decide some covid 19 rules and regulation and provides permission to starts some events.

There square measure some changes square measure created in sports and culture event that we tend to learn later.but everyplace some rules square measure common like social distancing , mask , and each player ought to checked covid test and before match players square measure isolated for fourteen days etc.

Introduction

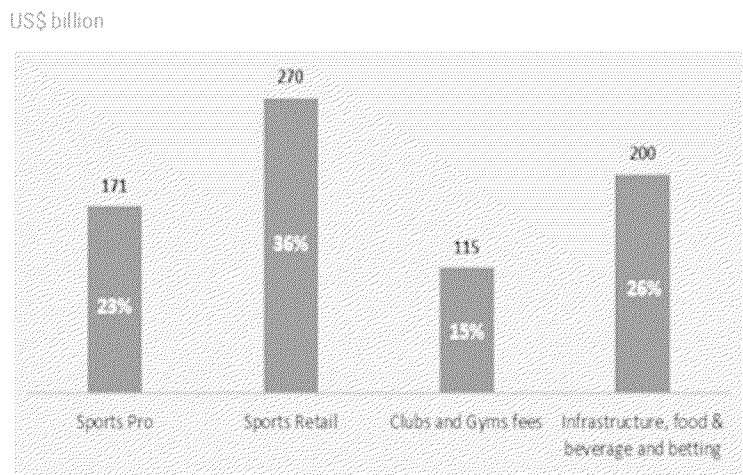
Sport might be a significant contributor to economic and social development. Its role is well recognized by Governments, still as inside the Political Declaration of the 2030 Agenda, that reflects on “the contribution sports produce to the management of ladies and of tykes, individuals and communities, any on health, education and social inclusion objectives.” Since its onset, the COVID-19 pandemic has unfold to the bulk countries of the earth. Social and physical distancing measures, lockdowns of firms, faculties and overall social life, that became commonplace to curtail the unfold of the illness, have put together sporadic many regular aspects

of life, still as sport and physical activity. This policy temporary highlights the challenges COVID-19 has expose to every the sporting world and to physical activity and well-being, still as for marginalized or vulnerable groups. It further provides recommendations for Governments and totally different stakeholders, any as for the planet organisation system, to support the safe reopening of sporting events, any on support physical activity throughout the pandemic and on the so much facet. The impact of COVID-19 on sporting events and the implications for social development

To safeguard the health of athletes et al. concerned, most major sporting events at international, regional and national levels are off or delayed – from marathons to soccer tournaments, athletics championships to basketball games, handball to hockey, rugby, cricket, and sailing, skiing, bodybuilding to wrestling and additional. The Olympiad and Paralympics, for the primary time within the history of the fashionable games, are delayed, and can be control in 2021.

The global worth of the sports trade is estima–ted at US\$756 billion annually. within the face of COVID-19, several many jobs square measure thus in danger globally, not just for sports professionals however conjointly for those in connected retail and sporting services industries connected with leagues and events, that embrace travel, tourism, infrastructure, transportation, job and media broadcasting, among others. Skilled athletes are harassed to schedule their coaching, whereas attempting to remain match reception, and that they risk losing skilled sponsors United Nations agency might not support them as at first united.

Global Revenues--Sports Industry



In addition to economic repercussions, the cancellation of games conjointly impacts several social advantages of world and regional sport events, which might cement social cohesion, contribute to the social and emotional excitement of fans, yet as their identification with athletes resulting in larger physical activity of people. Sport has long been thought of a valuable tool for fostering communication and building bridges between communities and generations. Through sport, numerous social teams are ready to play a lot of central role towards social transformation and development, notably in divided societies. In this context, sport is employed as a tool for making learning opportunities and accessing typically marginal or at-risk populations.

Major sporting organisations have shown their commonality with efforts to cut back the unfold of the virus. For instance, FIFA has teamed up with the globe Health Organisation (WHO) and launched a 'Pass the message to kick out coronavirus' campaign junction rectifier by well-known soccer players in thirteen languages, career on folks to follow 5 key steps to prevent the unfold of the illness centered to be had laundry, coughing prescript, not touching one's face, physical distance and staying home if feeling unwell. Different international sport for development and peace organizations have move to support each other in commonality throughout now, for instance, through periodic on-line community discussions to share challenges and problems. Participants in such on-line dialogues have conjointly wanted to plan innovative solutions to larger social problems, for instance, by distinguishing ways in which sporting organisations will reply to issues faced by vulnerable United Nations agency|people that|folks that|those that|those who} commonly participate in sporting programmes in low financial gain communities however who are currently unable to, given restriction to movement.

The closure of education establishments round the world thanks to COVID-19 has conjointly compact the sports education sector, that is comprised of a broad vary of stakeholders, together with national ministries and native authorities, public and personal education establishments, sports organizations and athletes, NGOs and therefore the businessmen, teachers, students and coaches, folks and, 1st and foremost, the – principally young – learners. Whereas this community has been severely compact by the present crisis, it also can be a key contributor to solutions to contain and overcome it, yet as in promoting rights and values in times of social distancing.

As the world begins to endure COVID-19, there'll be important problems to be self-addressed to confirm the security of sporting events the least bit levels and therefore the well-being of sporting organizations. Within the short term, these can embody the variation of events to confirm the security of athletes, fans and vendors, among others. Within the medium term, within the face of AN anticipated world recession, there might also be a necessity to require measures to support participation in sporting organizations, notably for youth sports.

The impact of COVID-19 on physical activity and well-being

The global irruption of COVID-19 has resulted in closure of gyms, stadiums, pools, dance and fitness studios, therapy centres, parks and playgrounds. Several people ar thus not capable to actively participate in their regular individual or cluster sporting or physical activities outside of their homes. Below such conditions, several tend to be less physically active, have longer screen time, irregular sleep patterns yet as worse diets, leading to weight gain and loss of condition. Low-income families ar particularly prone to negative effects of occupy home rules as they have a tendency to possess sub-standard accommodations and a lot of confined areas, creating it troublesome to have interaction in exercise.

The UN agency recommends a hundred and fifty minutes of moderate-intensity or seventy five minutes of vigorous-intensity physical

Activity per week. the advantages of such periodic exercise ar proved terribly useful, particularly in times of tension, crisis and concern. There ar issues thus that, within the context of the pandemic, lack of access to regular sporting or exercise routines could lead to challenges to the system, physical health, together with by resulting in the commencement of or exasperating existing diseases that have their roots in an exceedingly inactive fashion.

Lack of access to exercise and physical activity also can have psychological state impacts, which might compound stress or anxiety that a lot of can expertise within the face of isolation from traditional social life. Doable loss of family or friends from the virus and impact of the virus on one's economic eudaemonia and access to nutrition can exacerbate these effects. For many, exercise reception with none instrumentality and restricted house will still be doable. For those whose home life will involve long periods of sitting, there is also choices to be a lot of active throughout the day, for instance by stretching, doing work, mounting stairs or dance to music. Additionally, notably for people who have web access, there are several free resources on a way to keep active throughout the pandemic. Condition games, for instance, may be appealing

to folks of all ages and be utilized in little areas. Another necessary facet of maintain condition is strength coaching that doesn't need massive areas however helps maintain muscle strength, that is very necessary for older persons or persons with physical disabilities. The global community has custom-made chop-chop by making on-line content tailored to totally different people; from free tutorials on social media, to stretching, meditation, yoga and dance categories within which the entire family will participate. Academic establishments are providing on-line learning resources for college kids to follow reception.

Many fitness studios are giving reduced rate subscriptions to apps and on-line video and audio categories of varied lengths that modification daily. There are multitudinous live fitness demonstrations obtainable on social media platforms. Several of those categories don't need special instrumentality and a few feature everyday home objects rather than weights.

Such on-line offerings will serve to extend access to instructors or categories that will preferably be inaccessible. However, access to such resources is much from universal, as not everybody has access to digital technologies. For people in poorer communities and in several developing countries, access to broadband web is usually problematic or non-existent. The digital divide has so not solely a sway on distance banking, learning or communication, however additionally on benefitting from accessing virtual sport opportunities. Radio and TV programmes that activate individuals additionally as distribution of written material that encourages physical activity ar crucial in bridging the digital divide for several households living in precarious conditions. youngsters ar notably suffering from social and physical distancing, considering sport is often used as a tool to foster cooperation and fairness, promote respectful competition, and learn to manage conflict. While not sport, several youngsters ar losing the web that such participation provided. Presently some organizations and colleges have begun victimization virtual coaching as a way for leagues, coaches and youngsters to stay engaged in sport activities whereas remaining in their homes.

The Impact of COVID-19 on Sporting Events

1. Sporting Federations and Organizations.

Governments and intergovernmental organizations could give sports federations, clubs and organizations round the world with steerage associated with safety, health, labour and alternative international standards and protocols that will apply to future sport events and connected safe operating conditions. This might permit all stakeholders to figure hand and glove

as a team with the target to handle this challenge and to facilitate future sports events that are safe and pleasant for all.

2. Skilled Sport Scheme.

The sport scheme, comprising of producers, broadcasters, fans, businesses, house owners and players among others, have to be compelled to notice new and innovative solutions to mitigate the negative effects of COVID19 on the globe of sport. This includes finding ways in which to have interaction with fans so as to make sure safe sport events within the future whereas maintaining the force, making new in operation models and venue ways.

The Impact of COVID-19 on Physical Activity and Well-Being

1. Supporting Physical Activity - Governments ought to work collaboratively with health and care services, colleges and civil society organizations representing varied social teams to support physical activity reception. Enhancing access to on-line resources to facilitate sport activities wherever out there ought to be a key goal so as to take care of social distancing. However, low-tech and no-tech solutions should even be searched for people who presently lack access to the net. Making a versatile however consistent daily routine as well as work up a day to assist with stress and restlessness is advisable.
2. Analysis and Policy Steerage - The UN system, through its sports policy instruments and mechanisms like the Intergovernmental Committee for education and Sport, 7 additionally as through its analysis and policy steerage ought to support Governments and alternative stakeholders to make sure effective recovery and reorientation of the sports sector and, at constant time, strengthen the employment of sports to attain property development and peace. Research project and better education will be indispensable pillars to tell and orient future policies.
3. Technical Cooperation and Capability Development - Governments, world organization entities and alternative key stakeholders ought to make sure the provision of capability development and technical cooperation services to support the event and implementation of national policies and approaches for the most effective use of sport to advance health and well-being, notably within the age of COVID-19.
4. Stretch and Awareness Raising - Governments, the UN and also the sporting community, as well as the sporting education community, ought to diffuse United Nations agency and alternative steerage on individual and collective measures to

counter the pandemic. Measures should be taken to achieve communities that have restricted access to the net and social media which may be reached through cascading the game education pyramid from the national/ministerial level right down to the provincial/municipal level, from the national education inspector right down to the teacher, from the national sport federation right down to the clubs. In turn, escalating the pyramid provides for vital feedback to spot wants and share specific solutions. Athletes, whereas deeply suffering from the pandemic, stay key influencers to make sure that – particularly young – audiences perceive risks and respect steerage.

5. Promoting Positive Social Attitudes and Behaviour - Sport education could be a powerful means that to foster good shape, mental well-being, additionally as social attitudes and behaviour whereas populations are fast down. International rights and values primarily based sport education instruments and tools, like the International Charter of education, Physical Activity and Sport, the standard Physical Education Policy package and also the Values Education through Sport toolkit stay extremely relevant references to make sure that the numerous on-line physical activity modules that are being presently deployed fits gender equality, fairness, safety and quality standards.

Conclusions and Proposals

The COVID-19 pandemic has had and can still have terribly extensive effects on the sporting world additionally as on the physical and mental well-being of individuals round the world. The subsequent recommendations request to each support the safe re-opening of sporting events and tournaments following the pandemic, additionally on maximize the advantages that sport and physical activity will usher in the age of COVID-19 and on the far side.

Cultural State of Affairs

And the effects are long lasting thanks to a mixture of many factors

The effects of the crisis on distribution channels and also the come by investment by the arena can have an effect on the assembly of cultural merchandise and services and their diversity within the months, if not years, to come. Over the medium term, the anticipated lower levels of international and domestic business, come by getting power, and reductions of public and personal funding for arts and culture, particularly at the native level, might amplify this negative trend even additional. Within the absence of responsive public support and recovery ways, the

curtailment of cultural and artistic sectors can have a negative impact on cities and regions in terms of jobs and revenues, levels of innovation, subject well-being and also the timber and variety of communities.

The industry alone, might lose regarding ten million jobs this year, in line with UN agency, whereas a 3rd of world's art galleries might cut their staffing by [*fr1] or additional, information collected by the agency shows. Similarly, what has been in impact a six-month closure of concerts and performance, might find yourself cost accounting the music trade over \$10 billion in lost sponsorships, whereas the world business market might shrink by seven.5 per cent.

The extraordinary (OTT) platform saw associate degree Brobdingnagian boom, and it became a serious supply of amusement for viewers. In India, Arre, Disney+ Hotstar, Eros Now, BigFlix, Hooq, Netflix, Hungama Play and a few 30-odd platforms have mushroomed and square measure being watched by majority households. A recent newspaper article during a national daily noted that there square measure presently regarding forty suppliers of OTT services that distribute streaming media over the net.

There is little question that OTT has discontinuous the amusement sector. It's created look films convenient and handy. Anybody with a movable and a web association will watch a movie, sitting anyplace within the world.

Not all households have PCs and laptops for every member; the pandemic has restricted movements of individuals, creating social life tough. To feature thereto, searching additionally means that shopping for from one among the various apps that supply home delivery services; from videoconference calls with family, youngsters learning via on-line education to streaming on-line workouts, plenty of things have modified. Post-pandemic, a number of these habits square measure possible to stay. Corporations that had been grappling with integration technology have had to act faster.

Increasing penetration of broadband: This has contended a key role in fast the expansion of the OTT video section worldwide. Covid-19, especially, has created governments realise the worth of quick property and its pertinence in use cases like advanced telemedicine and remote operating, and this has contend through increased and computer game. It appears that 5G has the potential to power mobile technology through increased mobile adoption and dilated high-speed broadband web access via fastened wireless access (FWA). Therefore, governments everywhere

the planet square measure finance in high-speed broadband to amplify broadband coverage and adoption. These initiatives are enjoying a vital role within the success of OTT videos.

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- <https://www.who.int/news-room/fact-sheets/detail/physical-activity> 6
- <https://www.un.org/en/observances/sport-day/resources>;
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10. COVID- 19 & Higher Education through Open Universities

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Abstract

There is conspicuous increase in growth of higher education institutions, but only 8-10% population of India is pursuing higher education. Every year our population is increasing, but education percentage remains stagnant. Many candidates tend to school after 10th and 12th.

As per the latest 2011 census, about 8.15% (68 million) of Indians are graduates. Learning programmes have expanded beyond the traditional classes in brick-and-mortar schools. After post pandemic situation an academic calendar for School, Colleges & professional courses were completely affected. There are very many irregularities in syllabus completion as well as examination. Many regular course Universities completed their syllabus & conducted examination in an online mode. So, in order to boost online learners' engagement to facilitate learning. This article gives little more information beneficial to effective learning particularly in e- learning sources & open universities.

Keyword-COVID -19, Distance Education, e-learning, ,Open University.

Introduction

The COVID-19 pandemic is having more effect on the education. Most of the governments have closed educational institutions in an attempt to reduce the spread of COVID-19. [1]

Higher education in tertiary education leading to award of an academic degree. Higher education, is an optional final stage of formal learning that occurs after completion of secondary education. According to all India Survey on higher education (AISHE) 2018-19 Report, Gross Enrolment Ratio (GER) in higher education has been increased to 25.8%. [2] This data shows the achievement in numbers of students and institutions of higher education but when it comes to quality it goes down. Today, Indian higher education system ranks third largest in the world, after US and China respectively [3]. Higher education is important to national economies, both as an

industry, in its own right, and as a source of trained and education personnel. Indian higher education system has increasing very fast. Every year more than 20,000 new colleges are establishing and more than eight million students enrolled in a decade from 2000-2001 to 2010-2011 [4].

Education should have no boundaries. It should be accessible to all. As we know that, the most popular mode of education is regular, but due to regular courses student dropouts is more. Reason of student dropouts are many like economical, responsibility of family etc. so large number of students can't pursue higher education. For such students, open universities are like a boon from the government. Open universities provide education through open door academic policy. These universities follow no-class room teaching method; thus, their fee is affordable for all professionals, non-working people. The main goal of open universities is to offer equal opportunity to everyone to learn & acquire knowledge or to raise their level of living. Now a days many Open universities are providing text material in the forms of notes. But now it is pretty outdated as new technologies are developed. There are a number of e-books, reference books, e-journal, inter-linked hypertext document, online help centres, expert's views and other study-orientated material that can make the learning process very easy.

The use of e-resources in higher education lends itself to more student-centred learning settings. With the world moving rapidly into digital media and information, the role of e-sources in higher education is becoming prominent and its importance will continue to grow and develop in the 21st century all around the world. The University education system is largely based on face-to-face classes. An unexpected event such as the pandemic led the authorities to declare a state of alert and taking right safety measures, leading to the interruption of teaching activity at the Universities. Both professors and students have quickly adapted the online mode of teaching to continue classes. Online learning is not only useful to academics but also used for extracurricular activities. For example, this Year University of Mumbai organized an online cultural festival. This indicates that, demand for online learning increases significantly and it is useful for open Universities. In open Universities students do not need to walk for University. In regular course, student has to pay a big amount to get enrolment. But in open Universities course fees are very less where as not need to waste money on course uniform, hostel, mess etc. Indira Gandhi Open University is one of the worldwide famous University which providing education in all category. It has courses like certificates, Diploma, Degree, post graduate diploma post

graduate D. Ed. B. Ed. M. Ed, M. phil. Ph. D. in online mode. Admission process also online. Thus, this paper aims to how e-sources are useful in higher education.

Challenges

The main Challenges faced by the Indian higher education system areas mention below

(a) Financing - The inability of the stateto fund the expanding higher education system has resulted in the rapid growth of private higher education institutes.It gives benefits to few rich peoples. Many common men cannot afford this type of private education.

(b) Politics - Higher education is a high stakes issue in India. It is subject to heavy government involvement. Despite the system lack of state funder15.5% of Government expenditure goes toward higher education. [5]

Opting for Open University is most beneficial to the students from the weaker sections of the society as they are not burdened with heavy fees & other expenditures. Open University is best suited for candidates with the gap year/years too. The mottoof Open University is “equal opportunity to all.”

Accreditation

We can study undergraduate, post-graduate& professional level coursesvia distance education Also; many prominent political figures either own or sit on the managerial board of the Universities. This leads to the exertion of intense political pressures on the administration of their institutions.

Capitation Free

It is referring to an illegal transaction whereby an organisation that provides education services collect fees that is more than what is approvedby regulatory norms. It has been one of the major contributors to corruption in education and society. Due to thismiddle-class familyare face many financial problems. Therefore, learning through Open University by providing e-sources, virtual classrooms will beneficial to all.

Conclusions

Open universities hold great importance during the pandemic. Open University or Distance education is growing tremendously day by day. There is a huge scope for distance education in future. This mode of education attracts the people who are currently engaged in the job & want to pursue higher education along with their career.

Distance education is inexpensive & provides opportunities to the student to enhance their qualifications. Mostly People take distance mode for higher education while they are working. Their main motive behind opting the distance education is to upgrade skills & put the same in practice at work. Students pursuing distance education choose courses which will be beneficial in getting a job. Since March 2020, in India & throughout the world schools, Colleges & universities are opting online mode of conducting classes. Already University Grant Commission and higher education different motivating ICT strategies. Last ten, eleven months we (students & Teachers) all enjoying e-learning through available educational tools. Many teachers learnt to develop e- content, MOOCs etc.

Benefits of e-learning sources in distance learning [7]:

1. Inexpensive
2. No as bar
3. Assessing from any place & from any instruction
4. Working class can also take distance levelling for enhancing their career prospects.
5. Helpful in conduction research

So, in order to boost online learners, keep it simple, Choose the right colours and fonds, make navigation easy, use microlearning, Gamify, be social, give your learners Room to breathe, be human, Include self-assessment. Focusing on boosting engagement and not just transactionally delivering content will elevate the quality of a courses message, ensuring engagement and, ultimately, retention.

Online learning has advantages like efficiency, Accessibility of time & place, affordability, improved student attendance, and suits a variety of learning styles. Along with this advantage it also has minor disadvantages like inability of focus on screen, sense of isolation, teacher training, manage screen timing, a student has no support to ask any problem, No campus interviews therefore student has to search his or her job own etc. E-resources also represent many challenges at every level of their selection acquisition, preservation, maintenance & management.

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11. Post COVID-19 Scenario in Education

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Abstract

This study analyzed the present scenario of education within the context of the pandemic caused by COVID-19. The worldwide health emergency scenario has caused the confinement of individuals and with it, the closure of centers and also the transfer of face-to-face education to on-line education. Janus-faced with these facts, academics have had to adapt at a dizzying pace not solely to new method approaches, however conjointly to their own confinement, presenting high levels of stress. The aim of this study is to supply a proposal that optimizes the work of education professionals within the current context of a deadly disease through the utilization of data and Communication Technologies (ICT) beneath the novel approach of the contributions of neuroeducation within the field of managing emotions and psychological feature processes, tributary to meaningful learning in students. The mutualism of ICT and neuroeducation will build a good contribution to the paradigm shift that's happening nowadays.

Keywords - COVID-19; stress; teachers; ICT; neuroeducation

1. Introduction

The present context beneath the threat of the pandemic as a result of COVID-19 is inflicting a series of transformations within the totally different spheres of social, political, labor, and economic life. totally different governments have launched emergency policy initiatives supported the suspension of categories and also the closure of instructional centers to continue teaching activities from homes telematically through the utilization of data and communication technologies to be ready to stop the quantity of infections [1]. This study targeted on the results of the pandemic within the field of education. Specifically, within the paradigm shift that's presumptuous the transfer from face-to-face teaching to on-line teaching and the way education professionals should face adaptation to the new world context through the net modality, a movement that has occurred and is going on in a very frantic and abrupt method. Consequently, education professionals' square measure ending a method of assimilation toward new circumstances with many difficulties, inflicting things of high levels of stress. A survey of quite ten, 000 academics [2] unconcealed that ninety two.8% of academics suffered emotional

exhaustion, stress, anguish, or anxiety because of confinement and distance education. Excessive official tasks, unclear directions, lack of support in work, and lack of technical means that were the most issues observed by academics. Attainable difficulties facing such policies embrace poor on-line teaching infrastructure, lack of teacher coaching, data gap, and sophisticated home setting. To deal with the particular downside of teacher coaching, this analysis suggests teacher coaching through a series of coaching pointers [1]. This analysis is predicated on the many deficit in digital ability and information of the utilization of ICT by education professionals. This question becomes a vital issue within the current context of college closings and also the necessary adaptation of on-line teaching. Totally different empirical studies have reported the improved information of teachers' digital ability. During this sense, there square measure studies that report associate sinister distinction between the competencies that academics ought to have to be compelled to develop digital ability in their students and also the ones they really have [3]. This study has confirmed the existence of a vital gap within the teacher coaching within the use of ICT and its application within the schoolroom. Alternative studies have unconcealed that academics do continuous coaching throughout the tutorial year and demonstrate skills in bound areas of digital teaching ability like security and communication, though there's still a deficit within the creation of digital content [4]. Another issue to contemplate is that the teacher's self-perception of the necessity for coaching within the use of recent technologies. On this matter, a previous study [5] reported that fifty.0% perceived a medium would like and thirty seven.0% a high would like. Moreover, the study showed that respondents UN agency reported low ability concerning digitisation of teaching reported a statistically considerably higher would like for coaching. A recent study on digital ability in future academics that proposes a model for the event of teacher digital ability supported the mental object approach [6] unconcealed a medium level of development of digital ability and ended that there was still a lot of to try and do in terms of teacher coaching in ICT, being necessary to produce methods for the event of this ability in their students. The new instructional panorama needs the taking of a series of measures, among that the coaching desires of education professionals to facilitate the assimilation of the present context within which on-line teaching and also the use of ICTs stands out. This study includes a twin purpose: to manifest the wants of coaching within the instructional use of the ICTs of education professionals and, on the opposite hand, to optimize the utilization of ICTs through the contributions created by neurobiologys, and additional specifically from neuroeducation. One novel approach includes the contributions of neuroeducation, a discipline that provides the keys to understanding however the brain learns so as to use them effective method in teaching. The

solution lies in knowing what neuroeducation is as a discipline that promotes integration between instructional sciences and neurology, wherever educators and neuroscientists develop disciplines like psychological science, neuroscience, education, and science. During this method, the teacher should haven't solely a solid coaching in their field of information, however conjointly basic information in neurobiology to provide associate improvement in teaching ways and in numerous instructional programs. To hold out this project, first, the present context of instructional centers caused by the pandemic scenario are analyzed, specifically, the closure of instructional centers and, as a consequence, the amendment from face-to-face teaching to on-line teaching through ICT. Later, totally different measures associated with the required coaching of education professionals during this new context are analyzed. Finally, a piece approach is planned supported the contributions created by neuroeducation as a way of optimizing and channelling the teaching and learning method during this new context. Concerning the planning and methodology of this analysis, first, a listing search was undertaken to understand the present context derived from the pandemic and its derivations within the instructional field, highlight the transfer of ancient teaching to on-line teaching likewise because the coaching would like of academics within the use of ICT. A proposal for the utilization of ICT was made up of a neuroeducational approach supported previous studies that time in this direction. Through associate inductive methodology, a series of conclusions supported totally different investigations and techniques like observation, demonstration, and experimentation were necessitated, that were reviewed within the previous list. On the opposite hand, from associate analytical-synthetic perspective, the data obtained each from the present health context, from the utilization of ICT by academics and from the contributions of neuroeducation to be associated with one another, were analyzed separately to elaborate a worldwide synthesis that results in connecting the various axes of the investigation and to get a series of conclusions that link the utilization of ICT and neuroeducation.

2. Analysis of this instructional Context throughout the Pandemic Caused by COVID-19 On eleven March 2020, the globe Health Organization (WHO) declared that the infection caused by the coronavirus COVID-19 had ceased to be a pandemic and had passed to the class of pandemic. As of twelve might 2020, consistent with information from the COVID-19 Dashboard by the middle for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU), quite four.3 million cases of the sickness in additional than 212 countries with quite 292,000 deaths and quite one.6 million cases of individuals recovered [7]. By continent, as of thirteen might 2020, Europe with one, 675,742 affected and one hundred fifty five, 762 deaths and North

America with one, 544,436 affected and ninety three, 190 deaths are the continents with the very best figures followed by Asia with 701,532 infected and twenty two, 851 deaths, and South America with 335,624 affected and eighteen, 108 deaths [8]. One among the primary choices that the assorted governments created was to shut instructional centers. a choice was created supported the indications of previous investigations [9] for pandemic things, and that they finished that the closure of instructional centers at the side of the implementation of measures like the isolation of the sick or suspected unwell in hospitals or residences, the ban on public gatherings, and also the closure of roads and rail lines were effective measures to slow the advance of a plague. The report finished that within the event of a plague, decision-making concerning non-pharmaceutical interventions ought to be taken under consideration to implement the employment of vaccines, drugs, and prophylactic treatments, though solely as a final resort and just for very fatal infections, given the high harm to society. additionally, it's the circumstance that COVID-19 is transmitted a lot of simply among the kid population than among adults and quicker [10]. This behaviour of the virus in childhood reaffirms the choice to shut colleges. on an equivalent lines, another study by historian University analyzed the implications of the closure of faculties for the treatment of a 2009 influenza epidemic in an exceedingly region of North American country and finished that this live reduced contagion by five hundredth [11]. consistent with UN instructional, Scientific, and Cultural Organization (UNESCO) information as of three might 2020, almost 1.2 billion students and youth round the world were stricken by the closure of faculties and universities thanks to the occurrence of COVID-19 [12], representing seventieth of this social phase worldwide. This same body has analyzed the implications of the closure of faculties and has established a series of arguments on why it's a development of most urgency. Among the implications for youngsters of confinement are the psychological effects, social isolation, difficulties in accessing nutrition, and lack of workout.

3. Consequences of Closing colleges throughout the Pandemic the implications of the closure of instructional centers has affected the complete population laid low with scenario|thisexample|this case} caused by the pandemic situation, however even a lot of therefore within the most underprivileged countries. Consistent with United Nations Educational Scientific and Cultural Organization [12], there are varieties of things that are seriously affected:

- **Disruption of learning:** Since the closure of faculties implies a deprivation of the proper to education and to their own personal development. The lot of access to

education is proscribed, the bigger the harm caused by the closure of instructional centers.

- **Food:** As there are an oversized range of youngsters and kids WHO solely have the food they receive in colleges for free of charge|forcomplimentary|for gratis} or at a borderline cost.
- **Poor coaching of oldsters for distance learning:** This circumstance is thanks to the low instructional level of the oldsters, so another time; the foremost underprivileged families are injured to a bigger extent.
- **Unequal access to info and communication technologies:** the dearth of resources, once again, will increase the digital divide, that results in a troublesome obstacle to beat to access learning from digital platforms.
- **Lack of childcare:** As results of oldsters having to depart the house to hunt the living of the family, the youngsters ar left alone within the homes, and with it, a series of terribly negative consequences arise.
- **Economic consequences and accrued unemployment:** oldsters with young kids have to be compelled to reside home to worry for his or her kids that causes a loss of wages and damages the productivity of the region.
- The previous state of affairs is additional aggravated once it involves health personnel WHO should leave their job that is extremely necessary in an exceedingly pandemic state of affairs.
- Once prolonged closure of faculties, the likelihood of the chucking up the sponge of scholars WHO don't come back once the closure order is completed will increase.

4. Operating throughout COVID-19: coaching desires of lecturers within the Face of a Paradigm Shift faced with such exceptional circumstances caused by the pandemic as a results of COVID-19, in an exceedingly context during which colleges have closed their doors in 185 countries and government administrations have ordered the transition to the tele-training of scholars, it's manifested the necessity to coach teaching employees within the use of various technological tools, so as to adapt the various parts of the syllabus to the new context of a plague. We have a tendency to face a amendment within the instructional paradigm during which on-line coaching through ICT has ceased to be AN possibility within the teaching methodology and has become a necessity in these times of pandemic so as to continue with the code learning method. The globe Education observance Report [21] concludes that solely four-hundredth of adults in upper-middle-income countries are able to send AN email with AN attachment. Recent analysis shows

deficits in relevancy digital competency and low-medium teacher coaching, though teaching employees showed a positive angle toward ICT

5. The improvement of the employment of knowledge and Communication Technologies (ICT) below the main focus of the Contributions of Neuroeducation Neurosciences is developing investigations targeted on the neural bases of learning, memory, emotions, and totally different functions of the brain, the results of that have high relevancy within the field of learning [30]. This can be as a result of the inspiration of neuroeducation could be a idea referred to as brain malleability, that is that the brain's ability to physically amendment to adapt to stimuli and habits in ways in which are helpful to the individual. During this sense, learning and feeling are terribly shut. Thus, in substantive learning, relevant info is connected with sensations and feelings connected to pleasure that create USA attribute them earlier. During this means, neuroeducation emphasizes the necessity to use AN emotional approach each in lecture rooms and in any instructional context. consistent with these authors, neuroeducation could be a new discipline that depends on the contributions of neurobiology, psychology, and education sciences to make a far better understanding of however somebody's being is capable of learning and the way this info may be applied to make teaching ways similarly as arrange more practical study {and instructional|and academic} policies. Neuroeducation deals with the study of the various stimuli that the code perceives within the teaching-learning method, through the senses, to provide rise to substantive learning. In short, the employment of ICT from a neuroeducational approach would enable bigger gain in terms of learning within the current context of the crisis caused by the coronavirus, during which on-line coaching is proving to be a possible resolution within the context of the closure of instructional centers. The mixing of ICT and also the contributions of neuroeducation, neurobiology, and academic neuro-technology facilitate the code to create their own learning methods through new paradigms that facilitate learning processes within the context of on-line teaching [31]. This can be as a result of the many learning processes are supported brain operations, the results of that amendment the circuits of the brain. Neuroeducation deals exactly with the study of the improvement of learning supported brain development. This knowledge domain approach between ICT and neuroeducation facilitates substantive learning by making interactive learning areas during which the presentation of content through the innovative potentialities offered by ICT in on-line teaching offers teacher-student interactivity that arouses the interest of the scholars. This case causes the affiliation between neurons or the neurotransmission method, that is, the transmission of knowledge from

one somatic cell to a different somatic cell, to get effective results once explaining the new content.

6. Conclusions The pandemic caused by the COVID-19 sickness is deed devastating consequences in society from a social, health, political, educational, and labor purpose of read. Within the instructional field, a paradigm shift goes thereon goes on the far side the simply method. the actual fact that totally different instructional administrations have had to hold out a transfer of the tutorial system from face-to-face teaching to on-line teaching at a speed of real urgency is inflicting the employment of ICT to possess gone from being another method resource to a necessary resolution so the teaching and learning method isn't interrupted, so avoiding the collapse of instructional systems worldwide. This has been an academic, however conjointly a health live since the closure of faculties and also the adoption of on-line education would facilitate stop the unfold of the pandemic.

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12. Repercussions of Covid-19 Pandemic on Industrial Production

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Abstract

The whole planet now has Corona virus in its grasp. The infection has become so prevalent that a pandemic is being labelled a pandemic by the International Health Organisation (WHO). Because of the virus epidemic, the world economy will never be the same. The Indian industry, in addition to disastrous effects, must bear the high economic pressure as a result of the reduction in economic conditions caused by the corona virus. The paper will therefore explore the impact of the corona virus on the production of main, capital and intermediate products in the Indian economy and highlight market survival strategies that help India survive the pandemic.

Introduction

In the ANAROCK Report, 2020 the impacts of COVID-19 on the Indian property industry are tracked. It reveals that the industry has been growing for the past few years and is likely to grow faster than before; the recent coronavirus lockdown has definitely blocked its growth momentum. The report analyses the impact of the scale of the economies, the gross domestic product (GDP), employment and foreign direct investments on the Indian real estate industry. The thesis also examines the effect of COVID-19 on the Indian trading and residential industries. It states that slowing Indian economic growth, combined with a sharp response by the world economy to the pandemic, certainly would have an impact on the Indian Office segment and would stop the residential property market. In the report, the fall in customer spending, new delays in rent, the rise of vacancies and the neglect of business models are also highlighted as key problems for the coming months. The study also asserted that all sectors must rehabilitate and repair their underlying faults for crisis resolution. Countries around the world lost their origins in the ongoing COVID-19 crisis. Countries all over the world have been taken off balance as health systems are being tense and authorities have been trying to keep people as long as possible indoors. However, the already distressing world economy as a result of the

coronavirus outbreak has been more impaired. Global stock markets have sunk to one of the lowest levels in the last few years, millions have lost their employment and growth has stopped.

Review of Literature

Ana Lai, Capital Goods Companies, COVID-19 Face Shocks and Economic Recession

It is anticipated that the majority of large, diversified issuers of industry investments will be able to survive short-term pressures and have substantial credit metrics repaired in 2021. Caterpillar Inc. (A/Stable/A-1) is buffered to withstand a material drop in its production, mining and oil & gas industry which will significantly cut profits and income by 2020. Caterpillar Inc. The Caterpillar S&P Global debt-to-debt FFO ranking ratio in 2019 stood at 117%, way above the mark of 30%. Our prospects for the capital goods market had already been weak because of trade problems and sluggish economic development by 2020. The abrupt starting of COVID-19 placed serious pressure on associated businesses. In 2019, we took over 40 pessimistic ratings and had a gloomy forecast of 55%. During the dramatic downturn in 2016 and 2017, our negative bias decreased dramatically. Although the 31 percent negative prejudice was relatively high, the company ranks were still comparatively small.

The researchers have observed a significant impact of Covid-19 on the Group's business success. Self-isolation, social isolation and travel constraints are other causes that have suppressed job growth. Schools have been closed and there has been a rising food shortage. In comparison, the amount of medical supplies needed has risen significantly. This hysteria adds to more food industry inflation. We investigate the impact of this global epidemic on the global economy's growth and consumption. (Spain, 2020).

COVID-19 effects on the Indian economy and supply chain Effect Supply chains are often subject to such constraints. India is a developing market, with a huge effect on global supply chains. Covid-19 has. Global supply chains are also disrupted because of Covid-19. Output has declined significantly worldwide due to the embargo on such products. With Covid-19 delays, experts have come up with viable options for India's import and export issues. COVID-19 affects my supply chains adversely. The COVID-19 virus peak has already disrupted the distribution chain and began to significantly shut down production in many western countries, such as USA and Europe.

COVID-19 is much less exposed to India's economy than any other BRICS China proved to be the epicentre of the epidemic that contributed to a global recession. It is estimated that by 2020 Chinese exports in global supply chains will fall by US\$50 billion because of a 2% decline in its

exports. With importations valued at US\$ 68.1 billion, China is India's largest commodity partner. This represents 14.2 percent of India's overall global imports. With the disruption of Chinese supply, Indian exports will lose US\$ 348 million and damage these industries. The chemicals industry is forecast to incur direct losses of USD 129 million, followed by a decline in textiles and garments of USD 64 million. India ranked 10 among the top 20 countries most affected by the H1N1 virus, due to its low trade dependence on China, leading to low contagion. All this will lead to low crude oil prices, which would strain India's economy. The economic effect of COVID-19 is more affected by demand rather than supply shocks.

Given the protective steps and publication of a national government lockdown to curb the spread of the COVID-19 pandemic, most establishments in the industrial sector did not operate after the end of March 2020. This has had an effect on the products manufactured by the establishments during April 2020, when Zero production was registered by several response units. Therefore, comparison with earlier months of April 2020, it is not acceptable for users to compare the IIP, which in the following months will be updated in subsequent updates, in line with the revision policy of the IIP "Ministry of Statistics and Execution of Software (MoSPI).

In his research Effect of Corona Virus on the production and supply chain industry worldwide, Harsimran Singh Sodhi shed light on the worldwide challenges faced by the industry and the supply chain market. The COVID 19 outbreak has severely disrupted production and supply chains worldwide. Even some MNC manufacturers wanted to close down their production lines for a month and suffered huge financial losses. Owing to the heavy declines of output and supply chain units, the economic prices of many countries have also declined. Coronavirus has not influenced clinical byte in the world and is not a major cause of concern for the financial wellbeing of the world. It is well known that COVID-19 has a significant influence on global growth. It will start hitting hard in two to three weeks and will last months. The incidents mentioned in the article which resulted in disorders such as SARS in 2002-2003, as well as floods and tsunamis in 2010 or 2011 are not every day, although the effects on the environment of humans increase frequently. However, vendors exit the market, lose a key employee who affects the supply chain's productivity, and other disruptions similarly occur almost everyday from one organisation or another. Redundancies do not mean building stock, but many vendors are qualified to have the required component specification.

According to UNCTAD's Study on the Effect of the COVID-19 Pandemic on Trade and Growth, more than 1 million people have lost their lives since the 2019 coronavirus brawl (COVID-

19) and the global economy is forecast to decline an astounding 4.3% in 2020. Millions of workers have been lost, millions of livelihoods are at risk, and another 130 million people are predicted to remain in extreme poverty. These are horrific figures that reflect the pandemic's enormous challenges and human suffering. The COVID-19 has yet to be seen. In many nations the number of new COVID 19 cases has grown unprecedentedly and a second surge is unwanted for many now. If and where the pandemic spreads, there are many questions but the unprecedented economic shock triggered by the public health crisis have significantly exposed the world economy's present weaknesses and undermined global growth severely. The world was already facing a global pandemic and a severe economic crisis a year ago. Countries constantly complain of the lack of human life while preserving livelihoods. About half the population worldwide has never been locked up before, and so many people had never had to change their daily lives and behaviours so quickly, with these impacts. Changes in operating, manufacturing and usage are sudden and dramatic. Both make 2020 a long year to be remembered.

Research Gap

After doing the intensive literature review of the related research papers, it was found that much research has been done in the area of how coronavirus has impacted the economies of various nations by various researchers and international organizations. Whereas, it was found that no specific research has been done in case of how coronavirus has impacted the production of primary, intermediate, capital goods in India. So this research has been conducted to study whether the disruption caused because of coronavirus in the production of various goods is significant from the statistics perspective or not. For this purpose, various research tools have been used to make this study more reliable.

Research Methodology

Time series data have been used to research the effect of coronavirus on principal, capital and intermediate products. Monthly statistics from 2012 to 2020 have been taken into account and multiple studies have been carried out to determine the comparative value of pre- and post-code impacts. The following methods were used

1. **F test**
2. **Standard deviation**
3. **Mean**
4. **Shapiro Wilk test**

Post Covid-19 Performance of Primary Goods, Capital Goods and Intermediate Goods

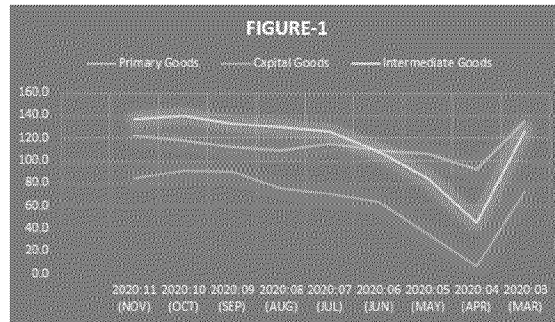
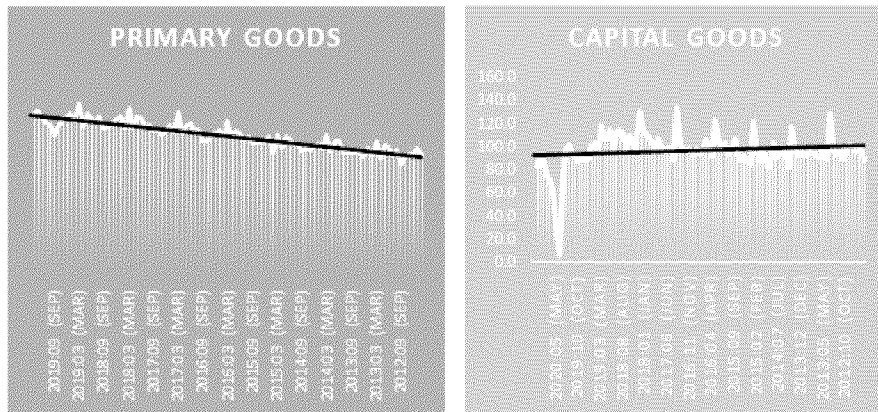


Figure 1 show clearly that, after the pandemic lock-off, the output of each object, whether it is primary goods, capital goods or intermediate goods, declined. But later, the output continues to revive itself in these products. Therefore, it is clear that coronavirus affected the company and we will aim to find in this study whether or not the effect is statistically meaningful. This downturn in the supply of these products has led to various other issues such as unemployment, GDP decline, buying power decreases and much more. While the effect was temporary, we have seen migration in India on a very large scale that further influences labour's availability in a given region. Therefore, this problem has a cyclical effect on the economy.

Performance of Primary Goods, Capital Goods and Intermediate Goods before Pandemic

Figure→2



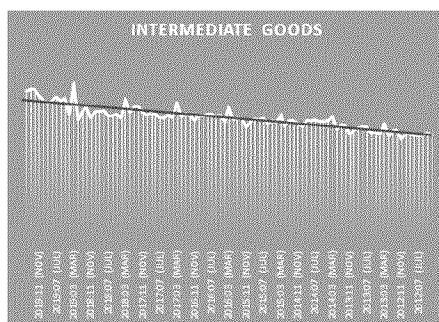


Figure 2 shows the production before the lockout in India of primary goods, capital goods and intermediate goods. The diagram shows that there were many differences in its development, owing to different socio-economic factors. On the basis of these available evidence, the study will be performed to decide whether there is a substantial difference in output trends before hey lockdown and after cough lockdown in 19. The manufacturing of these products has become important because the GDP, which is a simple metric for measuring any nation's output, is directly dependent on the manufacture of these products. Show by some way that you can find a quantitative approach to coping with production decreases, so the requisite solutions can certainly be recommended.

Analysing It off Coronavirus on Production of Primary Goods

Summary of Data of primary goods from figure-2			N	ΣX	Mean	ΣX ²	Std.Dev.
	Treatments	POST-LOCKDOWN	9	1016.4	112.9333	115842.5	11.4948
		PRE-LOCKDOWN	95	10837.9	114.0832	1247857	11.0296
		Total	104	11854.3	113.984	1363700	11.0177

Result Details	Source	Between-treatments	Within-treatments	Total
	SS	10.8692	12492.35	12503.22
	df	1	102	103
	MS	10.8692	122.474	
		F = 0.08875		

F test for variances, using F distribution (df_{num}=8,df_{denom}=94) (two-tailed) (validation)

1. H₀ hypothesis

Since p-value > α, H₀ is accepted.

The sample standard deviation (S) of **Group1's** population is considered to be **equal to** the sample standard deviation (S) of **PRE-LOCKDOWN's** population.

In other words, the difference between the sample standard deviation (S) of the **POST-**

LOCKDOWN and **PRE-LOCKDOWN** populations is not big enough to be statistically significant.

2. The statistics

The test statistic F equals **1.0861**, which is in the 95% region of acceptance: [0.2671 : 2.33].

$S1/S2=1.04$, is in the 95% region of acceptance: [0.5168 : 1.5264].

The 95% confidence interval of σ_1^2/σ_2^2 is: [0.4662 , 4.0661].

Analysing It off Coronavirus on Production of Capital Goods

Summary of Dataof capital goods from figure-2			N	$\sum X$	Mean	$\sum X^2$	Std.Dev.
	Treatments	POST-LOCKDOWN	9	592	65.7778	45114.74	27.7811
		PRE-LOCKDOWN	95	9522.9	100.2411	964284.8	10.158
		Total	104	10114.9	97.259	1009400	15.777

Result Details	Source	Between-treatments	Within-treatments	Total
	SS	9764.407	15873.61	25638.01
	df	1	102	103
	MS	9764.407	155.6236	
		F = 62.74375		

F test for variances, using F distribution (df_{num}=8,df_{denom}=94) (two-tailed) (validation)

1. H₀ hypothesis

Since p-value < α , H₀ is rejected.

The sample standard deviation (S) of **POST-LOCKDOWN**'s population is considered to be **not equal to** the sample standard deviation (S) of **PRE-LOCKDOWN**'s population.

In other words, the difference between the sample standard deviation (S) of the **POST-LOCKDOWN** and **PRE-LOCKDOWN** populations is **big enough to be statistically significant**.

2. The statistics

The test statistic F equals **7.4797**, which is not in the 95% region of acceptance: [0.2671 : 2.33].

$S1/S2=2.73$, is not in the 95% region of acceptance: [0.5168 : 1.5264].

The 95% confidence interval of σ_1^2/σ_2^2 is: [3.2102 , 28.0017].

Analysing It off Coronavirus on Production of Intermediate Goods

Summary of Data of intermediate goods from figure-2			N	$\sum X$	Mean	$\sum X^2$	Std.Dev.
	Treatments	POST-LOCKDOWN	9	1025.7	113.9667	124671.5	31.1766
		PRE-LOCKDOWN	95	11410.6	120.1116	1382022	11.0497
		Total	104	12436.3	119.58	1506694	13.7817

Result Details	Source	Between-treatments	Within-treatments	Total
	SS	310.4303	19252.88	19563.31
	df	1	102	103
	MS	310.4303	188.7537	
		F = 1.64463		

F test for variances, using F distribution ($df_{num}=8, df_{denom}=94$) (two-tailed) (validation)

1. H_0 hypothesis

Since $p\text{-value} < \alpha$, H_0 is rejected.

The sample standard deviation (S) of **POST-LOCKDOWN**'s population is considered to be **not equal to** the sample standard deviation (S) of **PRE-LOCKDOWN**'s population.

In other words, the difference between the sample standard deviation (S) of the **POST-LOCKDOWN** and **PRE-LOCKDOWN** populations is **big enough to be statistically significant**.

2. The statistics

The test statistic F equals **7.9608**, which is not in the 95% region of acceptance: [0.2671 : 2.33].

$S_1/S_2=2.82$, is not in the 95% region of acceptance: [0.5168 : 1.5264].

The 95% confidence interval of σ_1^2/σ_2^2 is: [3.4167 , 29.8028].

Conclusion

In the present study we conclude that how Covid-19 lockdown has impacted the production of primary, capital and intermediate goods. This research focuses on the ruinous effect of lockdown on the industrial production. Production of primary goods has not been massively impacted by the lockdown whereas production of Intermediate and Capital goods have been severely injured. Government should actively participate to boost the industrial production.

Future research suggestions include studies incorporating several economies where data are available to generalize the conclusions reached from this research. Such research will

contribute towards improving our understanding of the impact of corona virus on various Industrial production variables.

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13. Post COVID-19 Situation in Health Services

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Abstract

The COVID-19 pandemic may be a international health and slump of a scale ne'er witnessed before. Starting in China, it's among some months blasted several countries round the globe, requiring Associate in nursing unprecedented mobilisation of health systems. Whereas the malady caused by this novel virus is usually gentle and self-limiting, the chance of severe malady is disproportionately high among senior and people with underlying medical conditions. Within the absence of a immunogen or treatment, the general public health ways include:

(a) Preventing transmission through early detection and isolation, tracing contacts and quarantining them and implementation of measures like social distancing and hand hygiene and

(b) Reducing mortality by augmenting clinical management and shielding the foremost vulnerable populations within the society. The pandemic is one more reminder that we'd like to take a position publically health, build up national capacities to find a malady early and respond quickly to rising infections, strengthen and respect our national establishments and believe proof base for policymaking. it's time that we tend to paid heed to those lessons and strong with none more delay our health system capability, as epidemics and pandemics of this nature can still challenge public health well into the long run.

Keywords - COVID-19, pandemic, health system response, public health

Introduction

We square measure dead the inside of a worldwide public health crisis that's moving at a speed and scale ne'er witnessed before. The story began in metropolis town of China in December 2019, once a cluster of bizarre metastasis cases characterized by respiratory disorder was reportable (Zhou, 2020; Zhu, 2020). This publicised the emergence of a brand new or novel coronavirus, named by the International Committee on Taxonomy of Viruses as severe acute metastasis syndrome coronavirus a pair of (SARS-CoV-2) (Gorbalenya et al., 2020) and therefore the malady named by the planet Health Organization (WHO) as coronavirus malady (COVID-19) (World Health Organization [WHO], 2019). The cluster was on the face of it coupled to a wholesale food and wet animal market in Wuhan—as if it absolutely was a standard

supply natural event. Afterwards, it absolutely was disclosed that a lot of COVID-19 cases in truth had no link with the food market which person-to-person transmission was well afoot (Novel Coronavirus respiratory disorder Emergency Response medical specialty Team, 2020). Whereas the origin of natural event in metropolis remains obscure, there square measure anecdotal reports that the cases with severe respiratory disorder of unknown aetiology were occurring in metropolis even before December 2019. On thirty one December 2019, China notified the World Health Organization regarding the new rising event afoot in China. presently thenceforth and to international concern, several similar cases began to be reportable by few countries outside of China and across the planet, initiating substantial mortality and morbidity. On thirty January 2020, the World Health Organization declared the coronavirus epidemic or COVID-19 centred in metropolis town in Hubei Province of China ‘a public health emergency of international concern’ (PHEIC) (WHO, 2020). The World Health Organization explained that the choice to announce a PHEIC was created due to signs of human-to-human transmission outside China and its concern on potential severe consequences if the virus were to unfold in countries with a weak health system. On ten March 2020, the World Health Organization declared this event as an epidemic (WHO, 2020, March 11). Among few weeks, on sixteen March 2020, the whole variety of cases and deaths in China were overtaken by total numbers reportable outside of China (WHO, 2020 March 16). As on twenty seven April 2020, pair of 13 countries had reportable 2,858,635 cases with 196,295 deaths to World Health Organization (2020, July 10). Seven countries (Spain, Germany, Italy, UK, France, Turkey and therefore the USA) every had reportable quite a hundred,000 cases, with the USA tributary 899,281 of all cases. Apart from the fatal impact on human life and economy, COVID-19 has swamped the health systems across the planet.

Health System and Response to COVID-19

A health system will be outlined because the organisation of individuals, establishments and resources that delivers health care services to satisfy the health desires of the population (Wikipedia). Implicitly, countries style and develop health systems in accordance with their desires and resources accessible, though common parts in nearly all health systems square measure primary health care and public health measures together with promoting health, preventing diseases and making certain quality of health service delivery. The World Health Organization has provided a additional comprehensive definition of health system: A health system consists of all organizations, folks and actions whose primary intent is to market, restore or maintain health. This includes efforts to influence determinants of health further as additional

direct health-improving activities. A health system is, therefore, quite the pyramid of in public owned facilities that deliver personal health services. It includes, as an example, a mother caring for a sick kid at home; non-public providers; behaviour modification programmes; vector-control campaigns; insurance organizations; activity health and safety legislation. It includes inter-sectoral action by health workers, as an example, encouraging the ministry of education to market feminine education, a well known determinant of higher health. (WHO, 2007) Health system in a very country is managed and directed through a collection of policies and plans that square measure evidence-based and developed by the govt, ideally in partnership with alternative partners. Its implementation is usually determined by the provision of resources—both human and financial—of provides like essential medicines, technologies and a governance system that's responsible to the population. A responsive health system ought to be able to address {the desires|therequirements|the wants} of the country supported medical specialty profile and projected further as perceived needs of the communities. In the context of COVID-19, the first expertise in countries with large-scale community transmission like China, Iran, Italy, European nation and USA showed that COVID-19 needed unprecedented mobilisation of health systems (WHO monetary unit, 2020). Countries that haven't however intimate with community transmission could by acting desperately and resolutely, will abate the transmission of SARS-CoV-2 and have the time to arrange their health systems to mitigate the impact of the pandemic.

Preventing New Infections and Saving Lives

1. Public health police investigation for early detection and fast response Using associate degree communicable disease model, preventing infection involves characteristic the individual United Nations agency is infectious and rendering him or her non-infectious in order that they can not transmit to others, thereby breaking the chain of transmission. T.B. could be a case in purpose. Someone harbouring TB eubacterium could be a reservoir of infection and might unfold it to up to ten folks throughout the course of unwellness. However, once treated with associate degree anti-TB treatment, that patient becomes free from infection and can't unfold it to others, therefore breaking the chain of transmission. Coronavirus illness is caused by a completely unique virus and, at present, there's no treatment or immunizing agent on the market to treat it. The strategy here ought to be to observe somebody with the illness on the premise of take a look at results or by virtue of a case definition (based on the cardinal clinical symptoms of fever, dry cough, issue respiration, contact with a illustrious case and loss of sense of smell or taste) and quarantine the individual in order that he or she cannot unfold it to others and at constant time, to trace the contacts and monitor their clinical standing and quarantine if well or isolate if

symptomatic and testing positive. This is often a good thanks to break the chain of transmission. The strategy after all needs a sturdy police investigation capability to be able to observe all cases early and take proactive action as already printed. However, in most of the developing countries together with Asian country, the medical specialty and laboratory capability remains weak and wishes to be reinforced desperately. Most of the district medical scientist posts area unit lying vacant associate degreed there's an overall shortage of arch human resource to undertake the advanced task of tracing the infection. In India, to retort to the pandemic, the govt. has ordered mobilisation of epidemiologists and different human resource for health on a 'war footing'. In spite of best efforts of the govt., not several qualified personnel is also willing and on the market to figure due to inadequate salaries and poor terms of employment, in spite of many of them holding highest degrees publically health. This should be remedied desperately and also the role of public health officers in creating the health system robust should be recognised.

2. Implementing key public health measures Since drop infection is that the main driver of SARS-CoV-2 transmission, different public health measures counseled area unit social distancing; frequent and thorough hand washing; cough etiquettes; carrying of masks once going out; and not touching one's mouth, nose and eyes. Why social distancing? It's currently well established that several people will be the carriers of the novel coronavirus while not showing any of the everyday symptoms of COVID-19 (Gandhi et al., 2020). However these well or diagnosing people or those with solely gentle unwellness will still shed virus and infect others. To prevent the extraordinary and sustained unfold of this new coronavirus, a full implementation of social distancing is important. Social distancing implies that folks occupy home the maximum amount as doable, withdraw just for crucial wants like food things and medicines and maintain a distance of a minimum of one m or three feet from another person. It's conjointly counseled to avoid gatherings of over ten folks and handshakes (instead use solely namaste or the other non-touch greetings), additionally to regular handwashing. First, the principle includes the info that show that for each confirmed case of COVID-19, there area unit another five to 10 folks with undiscovered infections (Li et al., 2020). Second, though folks with undiscovered infections area unit thought to be not as infectious as folks with confirmed COVID-19, these people area unit actually the supply of infection for eighty five per cent of the cases. Third, once countries established travel restrictions and social distancing, illness transmission caught up quite significantly. The internment in Asian country has conjointly incontestible a rise in doubling time of the cases of COVID-19. The doubling rate for COVID-19 in Asian country before internment was three.4. It improved to seven.5 by nineteen Gregorian calendar month 2020

(Government of Asian country, 2020). Scientific proof like these show that social distancing is each a hindrance and a mitigation strategy. Clearly, internment is associate degree extreme sort of social distancing that has tested to be effective in flattening the epidemic curve. Otherwise, the fulminant giant increase in cases would fully overwhelm the present fragile health system, leading to an oversized variety of deaths. In Asian country too, the internment has already had the required impact of flattening the epidemic curve (BBC, 2020; The Lancet editorial, 2020). However, before lifting the internment, many conditions should be met. The 3 most significant of those are:

- a. to equip the health system in such some way that it's the power to observe cases, isolate them and trace their contacts, in order that the programme is in a position to snuff the hearth within the bud before it will unfold or assume the form of a conflagration (or a cluster containment);
- b. absolutely|to completely|to totally} prepare the health system to manage the new cases that area unit seemingly to occur; and
- c. to confirm that the community is fully engaged in preventing the unfold of the illness.

3. Risk communication and community engagement The role of media can't be underestimated in guaranteeing that these public health measures area unit enforced effectively and folks follow the recommendation given by the govt.. This includes communication credible and evidence-based info on a daily basis to the general public through daily press briefings concerning the most recent state of affairs update, trends, the associated risks and action being taken. Risk communication could be a key side in shaping the course of a deadly disease and empowering folks to require right selections. To encourage protecting behaviour, they have timely, correct and easy-to-understand info. this will facilitate limit the unfold of info that otherwise would cause panic or hysteria. Whereas social media could be a sensible supply of knowledge sharing, its careful use is needed in order that this medium isn't accustomed unfold pretend news and cause extra alarm that will damage the society and actually undermine response to the eruption. It's essential to possess a comprehensive risk communication strategy that's moral and helpful in native context (Bhatia, 2020). This strategy should be developed unitedly with social scientists and risk communication consultants. Psychological impact of pandemic has conjointly been documented (Shigemura et al., 2020). a good strategy should address this issue too.

Protecting the Vulnerable within the SocietyIn China, eighty per cent of cases of COVID-19 had a gentle illness, 15–20 per cent needed hospital care and another five per cent become critically unwell requiring medical care (acute metabolism distress syndrome and organ failure) (Wu & McGoogan, 2020). In Italy, on the opposite hand, forty per cent of patients needed hospital care (Lazzerini & Ptoto, 2020), with some seven per cent needing care in associate degree medical care unit. there's a agreement of the opinion that the illness affects all age teams however is disproportionately severe among older folks and people with underlying conditions like high blood pressure, upset and polygenic disease. High mortality rates rumored in Italy area unit partly explained because the Italian population is in significantly defined by older population. There's thus a transparent message that senior and people with underlying co-morbidities should be protected within the society and during a family surroundings and not unduly exposed. Among family conjointly, older relations mustn't act with tykes or kids United Nations agency though trying healthy is also infected. Recognising the health facility unfold of COVID-19 virus and health care employees being at a larger risk of infection, we'd like to enhance sorting, treatment and infection hindrance at the health care settings. Health care employees should be trained desperately on infection management measures together with universal precautions associate degreeed given facultative surroundings together with uninterrupted offer of non-public protecting instrumentation (PPE). In Italy, USA and China, thousands of health care employees became infected and plenty of have died. The amount of infected health care employees is increasing daily in Asian country too. Since the medical experts' area unit at the frontline of the response in each country, we'd like to confirm that health care employee's area unit protected in the slightest degree value. United Nations agency has recently issued pointers on 'Infection hindrance and management for Novel Coronavirus (COVID-19)'. Ensuring Surge capability just in case 'Intense and Sustained' Transmission happens As and once the community transmission commences, there would be sizable amount of cases that will overwhelm the present health system. The necessity of hospital beds and essential provides like PPEs, masks, etc. might transcend what the governments have planned for. These area units all a vicinity of pandemic readiness and response set up that one should steel oneself against earlier. In such an occasion, countries can have to be compelled to notice ways in which to extend their surge capability to treat COVID-19 patients whereas maintaining essential services in health care facilities. There area unit giant variations in acute care and medical care capability in several countries of the globe. the amount of medical care beds per one hundred,000 population ranges from two.3 in Asian country and three4.7 within the USA, to 3.6 in China, 6.6

within the UK, 7.3 in Japan, 10.6 in Asian nation, 12.5 in Italy and twenty nine.2 in FRG (Forbes, 2020). Sincere efforts area unit being created to reinforce single bed capability with the Indian Railways providing to convert its train coaches into hospital beds, thereby increasing the bed accessibility sufficiently. With nearly one.2 million medical aid doctors within the country, the amount of doctors per one thousand populations in Asian country is zero.75 that is additionally below the norm of one per one thousand population as prescribed by United Nations agency (Medical Dialogues, 2020). Moreover, there's major inequality in distribution with regard to relevant skills, competencies and pandemic coaching between urban and rural areas. In most remote districts sadly, the amount of specialists is nearly negligible. In spite of the Indian government's supply of 'quote your remuneration and also the government can pay', many nations have refused to form use of such associate degree initiative, whereas their populations still suffer while not quality and evenhanded health care. From the general public health purpose of read, there would be a desire for an oversized variety of personnel needed for field investigations, contact tracing and eruption containment. Therefore, mapping of personnel together with the present network of epidemiologists United Nations agency area unit already trained in illness police investigation, eruption investigation and management will be mobilised at a brief notice. Additionally, services of the many public health professionals United Nations agency area unit members of assorted associations will be explore for support in medical specialty work and knowledge analysis.

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14. ICT Post Covid-19: The Emerging 'New Normal'

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Abstract

The year 2020 probed a unprecedented challenge to the world and so did to India. Started in October 2019 in China the Novel Corona Virus showed its presence in India for first in Pune City of state of Maharashtra on January 2020. The virus medically named as COVID-19 continues to exit even today for a span of a year despite various preventive measures taken by the Governments across the globe. Having understood the severity on March 22nd, 2020 the Government of India under the leadership of Hon'ble Prime Minister Shri Narendraji Modi announced Voluntary Public Curfew-'Janata Curfew' and on 24th March the official Lockdown of 21 days was implemented in the interest of the safety of the people of the nation. During the lockdown only dealings and transportation of emergency and essential services like food, healthcare and medical services were permitted. All the companies were asked to continue their work from home. The no-option like conditions made people realize that with the help of different mediums and tools of ICT work from home option is indeed proving to be beneficial many ways. The Pandemic of COVID-19 has surfaced efficacy as well as limitations of ICT and so has the scope for improvement. Despite its lacunas the tough times of pandemic compel us to give credit to the Information and Communication Technology (ICT) for having proved to be of use to humanity in its best possible capacity, ICT in its best possible capacity too probes some challenges. However this paper, in an appreciating manner, intends to usher the crucial role played by digital and information in its current best capacities to help humanity

Keywords - COVID-19, Lockdown, ICT, Work from Home, Online Learning

Introduction

Empty roads, all vehicles parked, barricaded roads, patrolling Policemen even from a tiny lanes, closed doors of shops, frequent sirens of ambulances running across, stranded people away from their families pleading for help this was the scenario the whole world witnessed during the months of March and April 2020. It was in the October 2019 the concurrent notorious virus called Corona Virus, medically termed as COVID-19 was found in China for the first

time and went on to spread its wings across the globe in no time. In India on January 2020 the first positive patient if Corona Virus was diagnosed. Having understood the severity on March 22nd,2020 the Government of India under the leadership of Hon`ble Prime Minster Shri Narendraji Modi announced Voluntary Public Curfew ‘Janata Curfew’ .It was received well by the people of the country .Soon on 24th March the official Lockdown of 21 days was implemented the interest of the safety of the people and so is of the nation. The unwanted lockdown has impacted the entire world in different areas making people lose employment, business, and income. As the maxim suggest ‘Blessing in disguise’ in some areas this lockdown has ushered some helpful and positive impact on some of life especially work conditions and format.

Objectives of the Study

1. To consider effects of COVID-19 Pandemic from the working format perspective
2. To cast light upon the Post COVID-19 era
3. To highlight the role played by Information and Communication Technology (ICT) post COVID-19

Methodology and Approach of the Study

It is for the very first time that the whole world experienced the never before phenomena of COVID 19 in the year 2020.The second and third quarters i.e from March to August can be said to be the peak for the pandemic as the highest numbers of COVID-19 positive patients and deaths occurred has been recorded. The end of 2020 and the very beginning of 2021 i.e. the month of January and February 2021 was moving towards the of the pandemic. However by the beginning of March the 2nd wave of COVID-19 like conditions have created panic again. In India despite the introduction of vaccination there has been a substantial increase in the number of Positive patients of COVID-19 and so in the deaths. Hence these phenomena of COVID-19 can be said to be still not in reach of human beings for its complete eradication. It has been noticed that it is continuously changing its biological features and potentiality to put human lives in danger. Scientists, Medical Professionals, Pharmaceutical Companies and the Governments across the width and breadth of the globe are striving 24x7 to invent more potent measures to surmount this virus of COVID-19 19 once and for all. For past 1 year the research and study on this Corona Virus has been continuously going on. Therefore this paper is an attempt to bring to the fore the current understanding of the Virus and its effects on the world in different areas

available through resources and literature on print, electronic, television and social media. Through this paper the researchers of the paper wish to put forth the subject matter for consideration in Indian landscape.

Information and Communication Technology has proven to be of high utility value in this crisis of COVID-19 Pandemic. Recent numbers draw our attention to the fact that the Virus is still active. Therefore as this phenomenon is still under the phase of evolvement it is not helping to draw final conclusion about its real impact. On the other hand despite its proven efficacy ICT to has its own set of challenges. Hence it may not be appropriate to form any final conclusion before the phenomena of the study provides its complete understanding for study.

Limitations of the study

Because of its constantly evolving nature the virus COVID-19 has been continuing to exists till date in different capacity which may not allow us to put a time bracket to its era until its surmounted completely. The era has begun but with uncertainty of its otherend. Therefore the researcher of the paper intends to consider the ongoing phase from its birth in India on January 2020 as Post Covid-19 era to consider for the study.

This paper is based on the theoretical approach and conclusions formed on the available material through different media. Since the COVID-19 crisis has hit almost all the countries in the world engagement the of ICT can be discussed form global perspective. However with respect to study the efficacy in Indian context this paper is based on the geographical, cultural, environmental, economical conditions of the people in Indian backdrop.

ICT in its best possible capacity too probes some challenges like poor internet connectivity across all regions, problem of digital divide, economic conditions of people to name a few in Indian Context which can be further discussed separately. The COVID-19 breakout has presented itself as an unforeseen never before event and the world had to face it unprepared or with whatever at hand. There was no choice to make the available resources suitable to the conditions and to continue making the best of what was available. Hence this paper, in an appreciating manner, intends to usher the crucial role played by digital and information in its current best capacities to help humanity.

Lockdown 2020 in India

First diagnosed in China in October 2019 the Corona Virus Medically termed as COVID-19 went on to spread across the Globe. On March 9th 2020 the first positive patient of the virus

was found in Pune city in the state of Maharashtra and thereafter the number of positive patients went on to increase. The COVID-19 is highly transmittable through cardiovascular systems of human body which spreads by coming in contact with others. Therefore having understood the need, on 22nd March 2020, the 'Janata Curfew' was announced in India by the Government of India under the leadership Of Hon'ble Prime Minister of India Shri Narendra Modi. The curfew was received well with 100% response by the citizens of the country. On 24th March 2020, to break the chain of the virus the first 21 days strict lockdown was announced by the Government and it further was continued till 31st May 2020. Further it continued with some relaxations and for containment zones only.

During the lockdown only dealings and transportation of emergency and essential services like food, healthcare and medical services were permitted. All the companies were asked to continue their work from home. Travelling within and across the, cities, villages districts states was banned. The public local and interstate road, rail and air transportation facility was ceased.

Information and Communication Technology (ICT)-The New Normal

As the theme revolves around the term ICT it becomes crucial to understand what does the term ICT means for further understanding of its role in helping the humanity through the pandemic more effectively. ICT- Information and Communication Technology broadly speaking in simple terms is a field that encompasses various processes and functions related to computers and its technology that manage information. It uses different aspects like physical hardware, software's, operating systems, applications, database, storages, servers etc. to work. Information and Communication Technology has been evolving since its birth and seen several changes, upgradations and advancements during the process. What today's appearance of ICT represents is the more user friendly version to facilitate our lives.

It was not during the Lockdown in 2020 but almost a decade before Information and Communication Technology (ICT) was introduced to the world. What made the world realize its utility value was circumstantial use as no-option. .During the lockdown when all the offices, schools, colleges, universities and workplaces were closed and people had no option than to stay back home it was ICT that came in handy to stay in touch with each other and work from home virtually. The no-option like conditions made people realize that with the help of different

mediums and tools of ICT work from home option is indeed proving to be beneficial many ways and in no time ICT succeeded in proving its worth as facility than just a substitute.

ICT in its different tools in playing a major role in facilitating connections, health services ,shopping, education, entertainment and information during the times of distancing. Applications and Artificial Intelligence (AI) technology is helping keep the boll rolling rather helping nature and turning out to be cost savings for the organization. This pandemic has made us realizations that employing ICT is no more our goal but a requirement.

ICT in Different Areas

The Pandemic of COVID-19 has surfaced efficacy as well as limitations of ICT and so has the scope for improvement. This paper intends to bring the vital role played by ITC in this crisis of COVID-19 Pandemic. The ICT in its various forms and tools like Artificial Intelligence ,Applications, Digital Platforms like Social and Business networking Platforms, Automation, Video Conferencing and Virtual Meeting Platforms, Over The Top (OTT) platform and Virtual Private Networks (VPN) to name e highly recognized ones have helped the humanity in these times. This paper is an attempt to cast light upon the role played by ICT to facilitate our lives in general than going into the depth of technicalities of ICT to be able to grasp its significance at a glance

Healthcare

As the maxim in Hindi goes 'Jaan hai to Jahan hai' meaning survival is the most important factor, it becomes imperative to consider utility value of ICT in Healthcare system first. Health care field can be said to be one of the biggest fields making the difference in theses time of Pandemic of COVID-19. ICT facilitated Modern hospitals and healthcare facilities speak volumes about how ICT has proven to be helpful in handling COVID-19 Virus. From Testing to Treatment and to Curing and further monitoring it's the Information and Communication Technology blessed apparatus, tools and medical devices are enabling the healthcare professionals save lives of the Corona Virus disease patients maintaining the required distance.

From the healthcare perspective ICT has allowed Social Distancing –one of the three S of Covid-19 measures i.e SMS-Social Distancing, wearing Mask and Sanitization .Various Online Payment options -Electronic Payment has curbed the handling of currency notes and so has of possibilities of spread of the virus through infectious contacts. ICT has allowed to remain in touch with our close ones during the times of Complete Lockdown, Isolation and Quarantine

period.-Major player in facilitating Social distancing .With help of its Digital Platforms and other networking platforms ICT has made it possible to reach out to millions of people for spreading news medical advice, preventive measures, latest updates and useful information and awareness for public health in no time. In real sense it may be apt to say that it is Information and Communication Technology (ICT), by bridging the gaps, helping us prepare and keep upgrading our response to the Virus COVID-19.

Business -Work from Home

The pandemic forced all business and industries to shut down its operations on site and look for possible remote working options. Those with possibilities in hand continued working from home..And it has come to be possible only because of ICT. Undoubtedly many has to lose their job and business ,but to some extent though ICT has proven to be of help to many to be able to continue their work from home in this economic turmoil. This option of work from home has eventually proved to be cost saving for many business enterprises. Because of low infrastructure requirements and connectivity from anywhere many business enterprises could save on business expenditures on office spaces, infrastructure and travelling. Having understood the usefulness of work from home option in cost cutting to a sizable extent a number of Business enterprises across the globe have decided to continue with this work from home option permanently. Another biggest credit to experience healthy climatic conditions can be attributed to ICT only. As the remote working option was the only option left to continue the work there was no travelling during the lockdown causing almost 0% air Pollution by vehicle. And to everyone's surprise the rate of air pollution was recorded to be at its lowest in last few decades.

Talking about business this pandemic snatched away work from the hands of many while created and increased new opportunities of income generation to many. Increased work from home and Study from home options created a need of ICT tools and devices such as Smart Mobile Phone devices, Computer desktops, laptops, IPAD, Internet connections ,routers etc.which helped many existing electronic and computers business entities with increased business and offered work to many who has suffered work loss in their field.

Education: Study from Home

Education is considered to be a pivotal factor in one's personal and career development. In India academic year 2019-20 was on the verge of its end, when the Pandemic forced to close our educational institutions. Had ICT not been there the entire next academic year would have

been a complete waste for the students of various disciplines. Despite the differences of opinions the role of ICT solutions cannot be overlooked to facilitate education and learning to people of the world. An option to continue education through virtual online classes conducted on different digital platforms was worked out.

In the Indian backdrop reach of ICT is still far from enough. Near about 70% of the total population of the country reside in rural areas that's the reason India is known as the country of villages. In India most of the rural areas are still away from technological advancement. There is a poor or almost no reach of internet connectivity in many or remote places of the country till date. People with poor economic conditions are not in a position to afford electronic devices and facilities to continue education through ICT in India. And to highlight, the number of such unprivileged one is high. Despite the strong will to get education many from such background remained disadvantaged, some succeeded through efforts such as by seating in a network zone for online classes though.

Communicating for Connecting

While considering the utility value of ICT from different perspective we must not overlook its not so obvious but much required help during such a time of feeling disconnected on emotional front. It was ICT with the help of which all human beings on the planet could socialize virtually when meeting personally was not allowed. Being human people have a strong need to be connected. When people from were forced to draw themselves apart for social distancing, some were stranded away from their home and family, many has to be under isolation or quarantine period the human need of staying connected with the loved ones was served by ICT itself. With different mediums of ICT like Audio call, Video calls, Messaging, Sharing, Group calls and Messaging can be said to be worked like oxygen for them by facilitating connections with our closed ones during such hard times of distancing.

Entertainment and Recreation

Be it staying productive in work or spent time with our of loved ones human needs some sort recreation to recharge themselves. Entertainment is one of the essential factors for human life. Lockdown was the time when there was no choice than to lock ourselves within the confines of four walls of house. There was no freedom of mobility, socializing and entertainment outside. Mediums like online Videos streaming and live programmes came in handy to get entertainment.

Not only could the people at their homes but also those who were isolated and quarantined make the best of these facilities to entertain themselves to move away from their tension and worry.

The Government of India joining hands with private sectors has been continuously trying its best to develop ICT solutions for identification, contact tracing, treatment and isolation to surmount this threat of Corona Pandemic with help of various Mobile Applications and Artificial Intelligence (AI)

Began in March 2020 in India the crisis of COVID-19 expected to have under control by the end of the year 2020. It also showed decline as expected. However by the beginning of February conditions seemed to be getting threatening again. There said be a surge of second wave of COVID-19. There is sudden rise of CORONA virus deceased patient in last few weeks. Lockdown was almost lifted in the country. However the prevailing conditions of growing COVID-19 patients beckoning to be inviting for strict restrictions again. During the course we have understood the opportunities and limitations of ICT and there have been constant efforts by the experts of the industry for its betterment.

Thanks to Information and Communication Technology because this time we are not only mentally and conditionally prepared but also with digital transformation we underwent during the last lockdown and we are in better position to take on the challenge as this time its not from the scratches.

Conclusion

October 2019 marked the beginning of new threat to the entire humanity. It was the birth of highly infectious virus medically termed as COVID-19 in China first in October 2019. Soon after in January 2020 showing its presence in India first the Virus took a liberty of spreading like a wild fire across the country. After implementing Voluntary Public Curfew” Janata Curfew” successfully on 23rd March 2020 the Government of India under the Leadership of Hon’ble Prime Minister Mr Narendra Modiji declared a strict lockdown of 21 days span from 24th March 2020 across the nation which was further extended till 31st May 2020. The Lockdown forced people to shut their businesses down and stay at home and adopt remote working options. During the process many had to lose their jobs and business. Information and Communication Technology abbreviated as ICT helped the humanity sustain these difficult times of distancing in many areas. ICT facilitated lives of people in different domains like Health care, Work from Home; Communication for Connecting, Education, and Entertainment during the times of

lockwon. ICT has come across as a facility than the no-option aspect. It has probed many questions about its capacity to be of use to all irrespective of the region, geographical conditions, economic conditions and environment as a scope in the country like India where all these things really matter. However despite its lacunas the bad time of pandemic compel us to give credit to the Technology for having proved to be of use to humanity in its best possible capacity and so does draw our attention to its betterment to be able to make it even more useful.

Thus it may be apt to say the survival benefits offered by the Information and Communication Technology (ICT) during the Pandemic confers ICT the new recognition Post COVID-19 era as The New Normal.

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15. Post-Covid Situation in Economics

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Abstract

The COVID-19 pandemic has thrown many challenges for governments across the globe. Building on an initial understanding of the fallouts of the pandemic and the learning from the coping and management responses so far, this article first identifies some necessary elements and notions critical in shaping the post-pandemic development paradigm. The article also examines India's post-COVID-19 economic package to understand the gaps and the elements we need to build further on for greening the economic recovery. This analysis has benefitted from inputs and insights received from the representatives of industry and subject experts through a webinar and a survey based on a structured, open-ended questionnaire.

Keywords - Economic, COVID-19, post-pandemic development paradigm, inclusive and just development.

I. Introduction and Context

The COVID-19 pandemic is seen because the biggest health crisis and disruption since the Spanish respiratory illness, with profound impacts on each side of human life. Given the uncertainty around how deep this crisis is, these are still early stages to foresee the entire social, economic and political science fallouts of the disruptions caused by the pandemic. This is borne out by the actual fact that the International Monetary Fund (IMF) has created a significant revision within the world rate of growth over a really short amount of your time. The International Monetary Fund World Economic Outlook (WEO) report of April 2020 projected the worldwide economy to contract sharply by -3 per cent in 2020, abundant worse than throughout the 2007-2008 monetary crisis. Within the WEO report discharged in Gregorian calendar month 2020, the worldwide growth is projected at -4.9 per cent in 2020, 1.9 proportion points below the April 2020 forecast, and at 5.4 in 2021, as against five.8 within the April 2020 report. For India, growth projections are at -4.5 and 6.0 per cent for 2020 and 2021 severally. Given the origins of recent pandemics in environmental destruction, the post-COVID-19 development paradigm in

Asian country or anyplace else within the world has to think about property development. inexperienced growth and inexperienced economy as connected ideas are thought-about as a set of 'sustainable development', wherever measures of inexperienced growth and inexperienced economy have a bigger concentrate on the economy and also the surroundings through commercial enterprise instruments, market instruments and technology. Although it's too early to draw lessons for future economic models and social contracts each internally and at the worldwide level, the past few months are of nice learning and, in many ways, tips that could bound transformational shifts, towards a number of that we tend to might have already set our sails, and lots of such steps can follow, as an example, models of labor from home, on-line delivery of many health- and education-related services, governance, Social Security, technological solutions for nationwide communication and police investigation, that have sprung up within the past 3–4 months.

II. Research Questions and Methods

The objective of this text is to debate key imperatives for greening economic recovery in India which is able to facilitate in shaping the post-COVID-19 development paradigm within the country.

By examining the expertise in India and round the world, this text aims to contribute to the rising body of data on post-COVID-19 development. Analysis queries lined include

- RQ 1: What key parts and notions area unit vital in shaping the post pandemic development paradigm?
- RQ 2: What lessons may be drawn from the 2008 money crisis in terms of greening economic recovery packages?
- RQ 3: however will India's post-COVID-19 recovery package be created a lot of tuned in to the wants of environmental sustainability? The approach taken during this study involves mixed strategies involving quantitative and analysis. The qualitative analysis is predicated on the analysis of 162 inexperienced commercial enterprise and economic measures proclaimed throughout the 2008 money crisis. A information for these 162 measures is ready, and also the commercial enterprise measures area unit classified in numerous classes supported forms of instruments, like government defrayal. Once the analysis of those measures is undertaken, qualitative inputs area unit wanted from representatives of industries and additionally from subject consultants. A structured,

open-ended form is employed. Figure one depicts the break-up of the respondents' profiles.

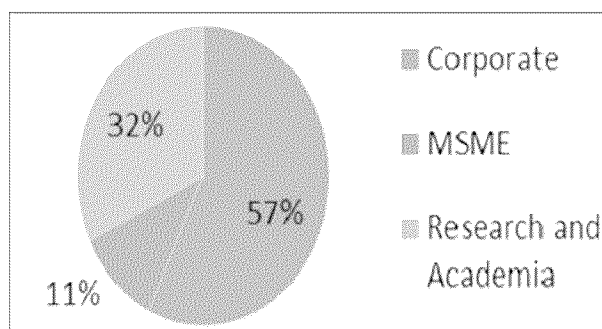


Figure-1 Respondent Profiles

III. Elements and Notions Critical in Shaping the Post-pandemic Development Paradigm

Need for Resilient and Just Social and Economic Systems

An important lesson throughout the pandemic that has deeply touched our lives is compassion and beingness. We want to ride this notion of fellow feeling to realize simply economic, social and governance systems. This could happen after we don't limit these ideas as just falling within the range of civil society throughout tough times however consistently explore them for build up economical and scalable businesses, service delivery systems, establishments and governance models that are simply and resilient.

For instance, recent initiatives and technological advancements like Aadhaar, Jan Dhan and smartphone applications that are thought of as a number of the most important achievements of the govt. have at the best partly served the aim throughout the pandemic. We want political can and technological support to strengthen governance and empower folks to cope higher (portable social security). It's quite evident that the human suffering throughout the pandemic has not been thanks to monetary or food product shortages however a lot of thanks to weak governance concerning weak systems and establishments. It should be emphasised that this human-to-human compassion can have to be compelled to be translated into human-to-nature compassion. We will draw lessons from totally different cultural and non secular beliefs and smart practices during this context. A number of the ways that to attribute and integrate this within the development policies would require awareness of ideas of beingness and compassion, that we've learnt throughout this pandemic.

Some samples of alternative learning embrace the work-from-home model, that works well for several sectors while not compromising on work productivity, models for delivery of the

many health- and education-related services and therefore the AarogyaSetu smartphone application for nationwide fast communication regarding and police work of the standing of the unwellness. As is justifiedly understood, these build excellent economic sense, also as having immense positive implications for global climate change, ecosystems and therefore the property development goals (SDGs).

Rethinking Economic Models

Production and consumption systems got to be rethought. This emerges from the very fact that nature will not be compromised associate degraded instead must be viewed as a plus category. Natural resources become assets once individuals have rights to access their edges.

Unsustainable production and consumption square measure perceived as general risks. We tend to cannot afford to ruthlessly exploit natural resources, generate waste and pack up later. This previous model is unsustainable. Especially, food production, distribution and consumption would require a scientific overhaul, not solely from the purpose of read of land use however conjointly from the angle of conservation of diverseness, health of agricultural ecosystems, risks and resilience of food systems against global climate change and diverseness loss and nutrition and health of individuals. Hence, the important question is: what regulative financial|and financial} and monetary policy changes square measure needed to guard the surroundings in terms of conservation in addition as for property consumption and production?

The first step to realize a scientific amendment is thru integration of environmental goals and targets, risks and resilience in strategic coming up with, budgeting and {financial} and financial sector policies. To sporadically live, monitor and report on natural assets and determine course correction measures, sturdy institutional mechanisms ought to be in situ.

Nature-based Solutions and Infrastructure

Infrastructure building is seen as a good enabler in achieving the SDGs. Investment in natural infrastructure has received very little attention. The preconception that technology will offer a solution to any or all problems is blemished. The importance of natural infrastructure in rising resilience against climate impacts, in sustaining livelihoods and in health has been tried certainly. this would like is to guage and integrate these into development designing policies and programmes.

This includes distinctive area unitas wherever restoration measures are essential. this can be particularly relevant for rough and coastal areas. Government support and practices that area

unit harmful to, as an example, wetlands and mangroves, agricultural and forest ecosystems, etc., ought to be known and reformed. The necessity for clean air, water and sanitation for hyperbolic resilience to pandemics and different diseases, besides human development and authorisation, can't be stressed additional. It's vital to acknowledge general risks and determine the underlying causes. A sustained effort on the far side stimulation is needed in addressing and building resilience against these risks.

To conclude, the higher than list by no suggests that may be a comprehensive list of ideas and opportunities that the pandemic has thrown at U.S.A. This, at best, is associate illustration of a perspective on the direction of policy shifts towards a resilient and simply development paradigm. This viewpoint incidentally seems to be leaning towards inexperienced and tech-smart development. It conjointly shares the broad sentiments of the stimulation packages extended post the 2008 money crisis and therefore the involves greening the post-COVID-19 recovery packages.

For instance, inexperienced Economy as a brand new policy paradigm was revived following the 2008 money crisis, at the side of the thought of 'green stimulation packages', whereby large-scale public investment in specific sectors associated with energy and surroundings may kick-start a inexperienced economy. Inexperienced recovery as an inspiration looks relevant globally, post COVID-19, as a method to push transitions towards property, resilient and simply social and economic systems. This can be ably illustrated in a very letter titled 'Green Recovery: boot and Reboost our Economies for a property Future' dated fourteen April 2020. During this letter, associate alliance of European politicians, business leaders and environmental activists have urged nations to extend inexperienced investment within the axis to develop 'a new model of prosperity' supported property, protection of ecosystems and transformation of food systems.

IV. International Experience from the 2008 Economic Shock

The global slump in 2008 had resulted during a huge economic decline in economic activities across most of states within the world. Nearly all Organization for Economic Co-operation and Development (OECD) countries suffered a fall in gross domestic product (GDP) and trade flows and accumulated state rates because of the worldwide slump. The developing economies weren't spared, because the crisis unfold to the remainder of the planet through numerous transmission mechanisms like the domestic banking sector's exposure to the

worldwide money markets, decline in world trade and reduction in world combination demand. Within the current crisis because of COVID-19, there'll be a mammoth adverse impact on the Indian economy. Each the planet Bank's and IMF's assessments {of world|ofworldwide|of world} growth gift a grim image because the global economy hits the worst recession since the good Depression within the Thirties.

We currently analyze the economic input packages as a response to the 2008 money crisis supported the concept of 'green stimulus', whereby large-scale public investment in specific sectors associated with energy and atmosphere was seen as a method to kick-start a inexperienced economy Table one presents the economic input packages and inexperienced elements in 2009 for numerous countries. As shown in Table one, People's Republic of Korea had the very best share of inexperienced part in its business enterprise input package, followed by the ecu Union (EU) and China? India, back then, had a comparatively tiny economic input and no inexperienced part. Countries like China and therefore the Republic of Korea, that endowed a lot of on inexperienced technologies, went on to become leaders in these technologies.

Table 1. Economic Stimulus Package and Green Component in Countries Following the 2008 Economic Shock

Countries	Stimulus Package (USD billion)	Green Component (USD billion)	Green Component (%)
Australia	43.8	9.3	21.2
Canada	31.8	2.8	8.8
China	647.5	216.4	33.4
France	33.7	7.1	21.1
Germany	104.8	13.8	13.2
India	13.7	0	0.0
Japan	639.9	36	5.6
Mexico	7.7	0.8	10.4
South Africa	7.5	0.8	10.7
Republic of Korea	38.1	36.3	95.3
United Kingdom	34.9	3.7	10.6
United States	787	94.1	12.0
EU	38.8	22.8	58.8

A number of studies have documented the impact of inexperienced stimulant measures, and a few of that square measure summarized here. The additive impact of the entire inexperienced stimulant measures within the us resulted in a very rise in jobs from two million to ten.9 million between 2009 and 2012, with the bulk of the rise occurring in 2011. EU countries reportable edges in terms of market demand for clean energy and reduction in gas emissions

.Benefits within the case of China enclosed increase in energy potency, reduction in pollution levels, increase in domestic demand of star electrical phenomenon (PV) panels and increase in inexperienced jobs . within the case of Republic of Korea, whereas the share of renewable sources in generation grew by two.2 per cent between two006 and 2016, there was no important reduction in coal dependence over this era .There is additionally falteringly round the edges in jobs created, because it has been troublesome to differentiate between wind, solar PV, star thermal power, atomic energy and coal-fired power generation.

According to AN analysis by IEA , the foremost winning stimulant packages as a response to the 2007–2008 crisis were stimulant funding for interventions supported evidenced policy schemes, targeted technologies that were prepared for readying, endeavor of structural barriers of investments and interventions considering the broader edges, together with social, energy security and industrial policy objectives. Table two provides a break-up of inexperienced parts of the stimuli by totally different instruments. It's shown that a complete of 162 differing types of instruments was employed by totally different governments within the countries examined by North American nation. Direct government defrayal for numerous functions dominated the narrative and accounted for over eighty six per cent of the full expenditure. The element of loan-based measures was minute, to the tune of one.9 percent.

Table 2. Green Stimulus by Type of Instruments

	Number of Instruments	Green Share (%)
Government spending	140	86.4
Fund	4	2.5
Green technology spending	53	32.7
Infrastructure investment	50	30.9
Plan/policy	4	2.5
Programmatic spending	5	3.1
Research spending	4	2.5
Transitory subsidies	20	12.3
Other measures	22	13.6
Loans	3	1.9
Tax/fee	19	11.7
Grand total	162	100

In one more categorization, measures will be any divided into ancient investment by government and facultative support to support through payment in technology, research, subsidies and programmes Table3 It will be seen that the share of the latter class is higher at sixty seven.3 per cent, indicating that a bulk of the measures targeted on payment by the govt..

Table -3 Break-up of Types of Stimulus Measures

	No. of Instruments	Green Share (%)
Traditional investment	53	32.7
Infrastructure investment	50	30.9
Loans	3	1.9
Enabling support	109	67.3
Fund	4	2.5
Green technology spending	53	32.7
Plan/policy	4	2.5
Programmatic spending	5	3.1
Research spending	4	2.5
Tax/fee	19	11.7
Transitory subsidies	20	12.3
Grand total	162	100

V. Economic Recovery Measures Post COVID-19 Pandemic

India Announced an Economic Package of 20 Trillion

- Major rate cuts by the bank of India (RBI), like in policy loaning rates, money reserve magnitude relation (CRR) and liquidity coverage magnitude relation, for providing cheaper money to banks are instigated.
- Loan freeze for a amount of three months on term loans has been allowable.
- Provision of special windows for company borrowers and rural industries has been created.
- To infuse more cash into the financial systems, run batted in has been injecting extra liquidity within the banking industry to stay bond yields down.
- To attract foreign investors, and to secure access to world indexes, India has detached a large vary of its sovereign bond markets to overseas investors.
- To ease the commercial enterprise deficit of state governments, state administrations are allowable to borrow a lot of for this year.
- To stabilize the capital market, all capital and debt market services are exempted from the internment. Figure a pair of illustrates the comparative image of economic packages in terms of paying by some developed and rising countries as a share of value in response to COVID-19.

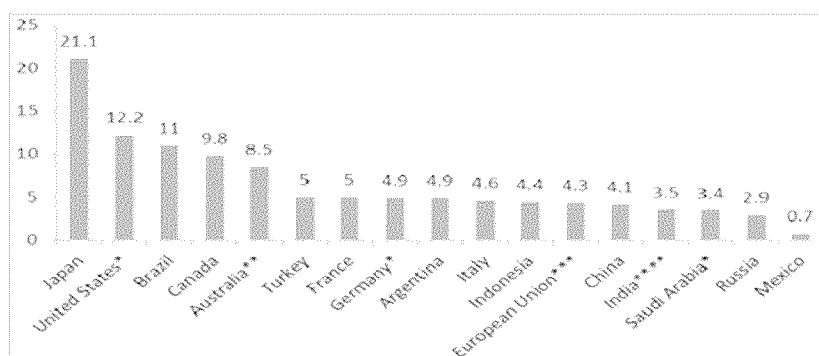


Figure - 2 Economic Packages in Key Economies as Percentage of GDP as on June 2020

How Does India Fare?

Bharat|Bharat|Asiancountry|Asian nation}'s prime minister declared a special economic package for 'Atmanirbhar Bharat' or a 'self-reliant' India which might higher integrate India with the planet. The package is to the tune of twenty trillion that is regarding ten per cent of India's GDP Table four. The package has 5 pillars: economy; infrastructure; system; spirited demography; and demand. The economic package is anticipated to hide land, labour, liquidity and laws. The package is concentrated on agriculture and small, little and medium enterprises (MSMEs), and justly therefore, as these square measure the most drivers of the Indian economy. This is often a marked shift in thinking that won't to see cities as engines of growth and therefore emphasised investment in cities. For the agriculture sector, some long-pending reforms are declared, and at an equivalent time, there's a push for investment in infrastructure. Each square measure welcome moves however have to be compelled to be backed by a modification within the attitude and capacities of establishments which will build a distinction on the bottom by implementing them within the right manner. whereas reforms are declared for MSME and provisions for credit has been created by adding another layer between the banks and MSMEs banking with the hope that the understanding of MSMEs market and business is best of negotiant establishments is best than that of the banks. MSMEs too have loads of catching up to try to to in terms of streamlining of tendering, procural, provide chains, conversion, technology, etc. several of the smaller ones can would like nudging and hand-holding. Square measure monetary intermediaries equipped with the attitude and capability to rise to the occasion? Solely time can tell.

Table - 4 Economic Package by the Indian Government in Response to COVID-19

Package	Announcement Date	Quantum
Tranche 1: Businesses, including MSMEs	13 May 2020	<ul style="list-style-type: none"> • ₹3 trillion collateral-free automatic loans for businesses, including MSMEs • ₹200 billion subordinate debt for MSMEs • ₹500 billion equity infusion through MSME fund of funds • ₹300 billion liquidity facility for NBFCs/FCs/MFIs • ₹450 billion partial credit guarantee schemes for NBFCs • ₹900 billion liquidity injection for Discoms
Tranche 2: Poor, including migrants and farmers	14 May 2020	<ul style="list-style-type: none"> • 30 million farmers with agricultural loans of ₹4.22 trillion availed the benefit of 3 months' loan moratorium. • Interest subvention and prompt repayment incentive on crop loans, due on 1 March, extended up to 31 May 2020. • 25 lakh new Kisan Credit Cards sanctioned with a loan limit of ₹250 billion • Liquidity support provided to farmers post COVID-19 • State governments to utilize SDRF for shelter, food, water, etc. for migrants • More support will be provided to migrants who are returning home.
Tranche 3: Agriculture	15 May 2020	<ul style="list-style-type: none"> • ₹300 billion additional emergency working capital for farmers through NABARD • ₹2 trillion credit boost to 25 million farmers under Kisan Credit Card scheme • MSP purchases of over ₹743 billion • Additional support for animal husbandry and fishery • ₹1 trillion Agri Infrastructure Fund for farm-gate infrastructure • ₹100 billion scheme for formalization of MSE has been announced. • ₹200 billion for fishermen through PMMSY • An animal husbandry infrastructure development fund of ₹150 billion • NMPB will green an 800-ha area by developing a corridor of medicinal plants along the banks of Ganga.
Tranche 4: New horizons of growth	16 May 2020	<ul style="list-style-type: none"> • Introduction of commercial mining in the coal sector through revenue-sharing mechanism instead of a regime of fixed royalty system; liberalization of entry norms; exploration-cum-production regime for partially explored blocks; production earlier than scheduled will be incentivized through rebate in revenue share. • Infrastructure development of ₹500 billion
Tranche 5: Reforms	17 May 2020	<ul style="list-style-type: none"> • ₹150 billion for protection of healthcare workers

Table 5 provides a comparative assessment of short-term relief measures across various economies as a response to COVID-19

Relief Measure	India	Worldwide
Direct cash payments	<ul style="list-style-type: none"> • ₹500 is being provided to each female Jan Dhan account holder, and ₹1,000 for senior citizens, poor widows and the disabled. • Payments for M-NREGA and front-loaded PM-KISAN payments have been halted. • ₹100 billion from the PM CARES Fund is being used to provide food and accommodation to migrant workers. 	<ul style="list-style-type: none"> • Canada is providing CAD2,000 for 4 months (from April 2020) to those who have lost their jobs, are sick or have to stay at home. • The United States is providing a one-time payment of US\$1,200 to its citizens. • Hong Kong is providing a cash handout of HKD 10,000 for each permanent resident aged 18 and above.
Financial assistance to corporations	<ul style="list-style-type: none"> • ₹900 billion loan to be provided against state (government) guarantee to power distribution utilities (Discoms) to mitigate the liquidity crisis in the power sector • Financial support to NBFCs, as in Table 1 	<ul style="list-style-type: none"> • The United States created a US\$500 billion fund to bail out failing corporates in aviation and healthcare. • The French government has announced that it will provide a bailout of €7 billion to Air France-KLM. • The French government has earmarked €20 billion for bailout.
Loans for small businesses	<ul style="list-style-type: none"> • India to provide a collateral-free loan scheme to MSMEs, loans for critical MSMEs and mega 'fund of funds' to provide liquidity (details mentioned in Table 1) 	<ul style="list-style-type: none"> • Most countries have offered small businesses emergency loans and fast access to credit during this period. • Many nations are also providing tax relief for these businesses. • Japan's government has schemes to cover two-thirds of the rent of small businesses for up to 6 months.
Payments to employees	<ul style="list-style-type: none"> • The TDS/TCS rate has been reduced by 25%, which is expected to put ₹500 billion in the hands of people. 	<ul style="list-style-type: none"> • The United States has announced a Paycheck Protection Programme to help small businesses keep their employees on payroll. • The United Kingdom has a scheme to provide grants covering up to nearly 80% of the salary of workers if companies keep them on their payroll. • Denmark also has a similar scheme to pay 75% of employees' salaries to avoid mass layoffs for a time span of 3 months. • Thailand has allotted US\$18 billion to provide financial aid to temporary workers, contract workers and the self-employed.

Notwithstanding the differing views on the dimensions of the economic package, 'Atmanirbhar Bharat' as an idea of amendment in development methods looks to own the potential to deliver on inexperienced growth. Though the thought must be unbarred additional going forward, for now, it's clear that agriculture and allied sectors and MSMEs can get a revived focus. On face price, this additionally seems in set with the thinking of EU political alliance, though clearer interpretations of the 2 can inform the talk on such comparisons more. however these provide North American nation sufficient basis to believe that deep structural and policy changes might on the anvil to observe out for within the country in terms of opportunities contained in these provisions for inexperienced, resilient, just, and property development.

VI. Framework for Greening the Economic Recovery in India

Insights From good Consultations: to grasp the views of stakeholders on the economic package declared by the government of Asian country, likewise as on the long vision for economic development, and as a validation exercise for our review of international experience, we have a tendency to tend to consulted academics, subject specialists and business representatives through a webinar. Variety of the important findings from the neutral consultation unit listed below

1. There are no conflicting viewpoints among the respondents, and each one in all them felt that this pandemic state of affairs have to be compelled to be leveraged to grasp the SDGs and NDC (Nationally Determined Contributions) commitments.
2. SDG-aligned budgeting or inexperienced budgeting is employed as a framework for higher alignment of presidency disbursement on environmental objectives and thus the SDGs. this could be a good place to start in eventually moving towards the mix of environmental problems and concepts into development planning and budgeting.
3. The governments have to be compelled to incentivize inexperienced industries. For improved environmental outcomes, relevant policies have to be compelled to be aligned and thus the state- and local-level institutions robust.
4. In step with big companies, international investors and cash institutions became tuned in to ESG (environment, social and governance) parameters. Encouraging the industries to follow ESG wants would to boot attract further investors. Respondents from the business were in favour of institutionalization of clear self-reporting mechanisms of

united parameters, likewise as risks to business and thus the setting. Info have to be compelled to even be comparable for varied parameters.

5. If an inexperienced recovery path should be pushed, the government will have to be compelled to stimulate market demand for environmental merchandise and services. Incentives coupled to the adoption of inexperienced labels (Eco-mark, letter [Zero Defect, Zero Effect] and totally different internationally accepted labels) hold potential.
6. Investment in inexperienced infrastructure, like cold storage facilities for farm produce, regionally sourced transport fuel, renewable energy comes, resource efficiency, micro-grids and special economic zones, specializing in environmental merchandise and services would be needed. There is a need for creating holistic incentive packages for inexperienced MSMEs that embody not entirely cash incentives but to boot the facilitation of intellectual property-based resources and promoting support to inexperienced MSMEs. In step with some stakeholders, fitting a fund for greener MSMEs look promising.
7. There's some increase in taxes in luxury sector things and things that have harmful impacts on health and thus the setting.
8. Table six presents a photograph of potential inexperienced recovery measures across sectors supported the consultations and review of international experience.

Table - 6 Potential inexperienced Recovery Measures Across Sectors in Asian country

VII. Conclusion

The pandemic amount has been a time of nice learning. cope measures that sprung up throughout this point ought to in many ways be seen as tips that could the transformational shifts—both permanent and temporary—towards a number of that the planet and Asian nation might have already created the primary moves, and plenty of additional of which is able to follow. Building on the training to date, the article identifies some necessary components and notions vital in shaping the post-pandemic development paradigm. a number of these not solely notice Associate in Nursing echo within the post-COVID-19 economic package unrolled in {india|India|Republic of Asian nation|Bharat|Asiancountry|Asian nation} however are in adjust with self-sufficiency or the 'Atmanirbhar Bharat' and 'vocal for local' calls by the prime minister of India. productive implementation of assorted measures proclaimed are going to be vital, providing Asian nation doesn't have a lot of to showcase on this front.

The package has not given a lot of attention to the building blocks of implementation— institutional capability, technology, research, innovative business and delivery models— especially within the context of agriculture and MSMEs, that are the 2 focus sectors of the economic package. Also, because the thought of self-sufficiency is totally unpacked going forward, it'll got to be nuanced such it doesn't imply nationalization, which might be additional damaging to the setting and economy. While some transformation shifts can emerge organically and can would like support and participation from the central and state governments to flourish; the transformational shifts would require a purposive and policy nudge from the govt. The explanation for greening economic packages in Asian nation emanates from the actual fact that government interventions are needed to nudge practices from 'business as usual' to a additional sustainability-focused development path. The property agenda should be seen not as a 'disruptor' however as a 'corrector'. A review of international expertise shows that within the medium and future, if recovery packages are targeted well, these may be used as means that to push environmental property by nudging trade players to upgrade technologies, adopt government norms and inject investments into developing environmental merchandise and services that will have markets within the close to future. There's robust proof to recommend that the economic packages provided in response to the 2008 money crisis made the meant leads to some countries.

Asian nationn policymakers can also learn lessons from this expertise and style stimulant packages with investments (including public expenditure) targeted at interventions in India that embody established policy schemes, targeted technologies that are prepared for readying, attempt of structural barriers of investments, energy policy, industrial policy and interventions considering wider socio-economic edges.

The consultation exercise reveals that whereas governments expected to focus additional on immediate relief measures within the short term, the eye ought to step by step shift to implementing medium- and long reforms in issue markets, and reforms for the correction of externalities to incentivize environmentally property decisions for transformational shifts. 'Atmanirbhar Bharat' as a plan of basic modification in development ways indicates the need for sustained effort on the far side the recovery package. On face price, it seems in adjust with the thinking of EU political alliance. Clearer interpretations of each can inform the talk on such comparisons additional. nevertheless these offer U.S.A. sufficient basis to believe that deep structural and policy changes are air the anvil to observe out for in terms of however

policymakers create policy reforms to nudge the country towards inexperienced, resilient, just, and property development.

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16. E-Learning in Higher Education during Lockdown Period of COVID-19 Pandemic

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Abstract

A novel corona virus causing havoc worldwide by infecting millions of people with increasing mortality rate. This pandemic impacting badly on many sectors of society including social, economic, health, education etc. worldwide of lockdown impacted negatively on people globally. Along with all these adverse conditions on many sectors, education is also badly affected with worldwide closure of education system to control the corona spread. This closure of education sector affected the academic schedule of students, teachers and all the people related to education sectors. this corona pandemic caused billions of learners out of schools and colleges. the effect of COVID-19 are job losses, reduced learning of students, increasing debt of parents and students. to find the solution of closure of education system, technology helps at much extent. many educators and students using the ICT tools to continue the teaching-learning processes. ICT is influencing on every sector of society. ICT playing a catalyst for change. The implementation of ICT in education sector providing quality education and a kind of blessing for students in this pandemic situation. Along with the advantage of online learning, there are some limitations in advance technology including poor infrastructure, power, network, difficulty of reach to ICT in poor community and poor digital skills.

This review article discussing the importance of ICT, benefits of ICT in education, the limitations of ICT in educations. All the in-depth pros and cons of ICT in education.

Keywords-online learning, Coronavirus, Education, ICT in education, COVID-19

Introduction

Short Introduction to Covid Pandemic

The novel corona virus disease 2019 (COVID-19) pneumonia pandemic caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) is spreading world-widewith a rapid spreading rate having a basic reproduction number (R_0) of 2–2.5, indicating that 2–3

persons will be infected from an index patient (Dastaath et al 2020). It is a serious public health emergency, it is a deadly virus infecting many vulnerable populations in which health care is poor, The SARS-CoV-2 patient is still infectious for 2 weeks after stopped to show the symptoms. World-wide the morbidity and socioeconomic impact increased drastically in which the lockdown and border closed for many countries and population

Globally, as of, 18 March 2021, there have been 120,915,219 confirmed cases of COVID-19, including 2,674,078 deaths, reported to WHOM. As of 17 March ([https:// covid19.who.int](https://covid19.who.int)).

2021, a total of 363,952,002 vaccine doses have been administered. The clinical symptoms of COVID-19 changes and include the asymptomatic carrier status, acute respiratory disease (ARD), and pneumonia, people with diabetes mellitus (DM), hypertension, and severe obesity ($BMI \geq 40 \text{ kg/m}^2$) has infected and are at a higher risk for complications and death from COVID-19. along with laboratory-confirmed COVID-19 diagnosis, patients with ARD manifest with fever, fatigue, respiratory (cough, dyspnoea) or gastrointestinal (nausea, diarrhoea, vomiting) symptoms. Severe pneumonia can present as acute respiratory distress syndrome (ARDS), leading to severe hypoxia, respiratory failure, multiorgan failure, shock, and death persons with age above 65 or older are at high risk for this disease and death. This disease is very infectious for Pregnant women and their fetuses. Due to the changes occurs in pregnancy i.e., physiological and mechanical are more prone to this disease (Dastaath et al 2020).

Disturbances Caused by Covid

The massive COVID-19 pandemics caused a massive health emergency and economic crisis. This economic crisis affected mental health of an individual. Due to this crisis, all members are not affected. the affected economic activity may cause serious and significant disturbance. combined effect of damaging and destructive factors such as unemployment, downsizing of medical and social services, and cut in public spending along with unemployment, downsizing of medical and social services, and cut in public spending caused serious mental health issues in people of many countries. This covid 19 pandemic causing many countries to cut their expenses on medical health insurance services from public and private sector. due to this the stigmatized or diagnosed Peoples having very rare resources with getting difficulty to afford the private medical practice, these people are majorly affected by many worst conditions such as insecurity, fear of losing a job and reduced income, falling in debts, unavailability of essential

goods, social isolation, and unhygienic living conditions. in some cases, it is getting more worst with affecting stigmatized peoples mental and physical health. entire families are affecting by the low income, daily workers losing their jobs, started to migrate to their home town, due to losing jobs and affected financial condition are becoming more prone to mental condition, getting addicted to alcohol and suicidal tendency (Yang et al., 2017b).

With increasing debt, the mental condition getting worst and increasing the addiction (Yang et al., 2017b).

COVID-19 pandemic is massively dangerous to people's financial condition caused badly affected supply chain and daily social and business activity. Government implementing strict rules and regulation to restrict social gathering which is important for people's mental health, in time of need, person is unable to meet or communicate with the needy one and due to this one's usual social support network is disrupted. The daily paid workers and labours are getting badly affected by this pandemic by uncertainty, and job loss.

Losses to Education Sector

the covid-19 pandemic badly affected educational system worldwide, including widespread closure of schools, colleges and private education sectors, it completely disturbed the academic activity, academic schedule and career opportunities and plans, to fight this corona pandemic many countries closed the schools and colleges to prevent students and staff from the danger of this pandemic According to the United Nations Educational, Scientific and Cultural Organization (UNESCO) monitoring, over 100 countries put into effect nationwide closures, impacting over half of the world's student population (UNESCO, 2020a). the countries that closed down schools to contain the coronavirus pandemic are Nigeria, Ghana, South Africa, Senegal, China, Kazakhstan, India, Ethiopia, Honduras, Japan, Iran, USA, France, Spain, Italy, North and South Korea, Germany, Lebanon, Thailand, Vietnam, and South Korea just to mention but a few. The closing of school affected cost of social, educational and economic this negatively impacted peoples among various communities.

If the solution or cure not found on covid 19 then the disturbance and negative impact may get worst for longer period of time than expected.

This sudden, unplanned school closures could negatively affect the academic interest and performance of students. Prolonged closure of education sector can cause severe problems for students, educators, parents and the society. If students not involved in academic environment

students could become lazy and useless for themselves and for society which might lead them to serious crimes, loss of interest in learning, and poor academic performance. School closing is very controversial, and it can have unexpected negative effects on a large number of students in receiving schools. It can affect the quality of teaching and learning and academic achievement particularly for handicap students or those with learning difficulties that often requires more guidance from the teachers, require frequent help for instructor or teacher. Technology can be used to solve some issues caused by closure of educational system but the face-to-face interaction of student and teacher is more important and effective. Beside many students from rural area could not get the access of technology they will remain away from the benefit of technology in education in the situation of closed schools. The closing of schools in past time due to such pandemic indicated that the severity and danger of the pandemic reduced, the total number of cases in the community decreased by 25% and the highest peak of number of patients postponed by few weeks. While intentional closure of schools and colleges are more beneficial in such pandemic (Erika and Nicholas, 2020).

Academic Loss of Students

While the COVID-19 school closures are unexpected in many countries, it badly affected students in their academic environment, extended closures of schools and colleges negatively impacts on student learning. In many countries summer break for most students extended due to COVID-19 school closures. In some research due to this shown that students achievement typically slows or declines over the summer season on average and that the decrease is sharp for mathematics than for reading (Quinn & Polikoff, 2017).

In post covid 19 some countries opened the school, some students miss the school, there are many reasons why a student might miss school, including lack of access to reliable transportation and need to care for family members. Minority and low-income students seem to be chronically absent. Students also missed the school due to loss of parental jobs and migration in lockdown period. It is consistently found that absences of students had negative effects on end-of-year test scores. Several research that used a numerical type of model found identical results schools. Missing approximately two weeks decreased student mathematics test scores by 0.06 to 0.08 SDs, with a less effect sizes for ELA (English language arts) scores (Aucejo & Romano, 2016; Gershenson et al., 2017; Liu et al., 2020).

The remote learning occurred in many schools during the COVID-19 and post COVID-19 period. Many districts offered online learning plans, which may include formal curriculum, assignments, report writing, progress checking, and access to general educational resources. Students were involved in an online learning program from their school. This online instruction could reduce the losses that students experience during the pandemic. On the other hand, there is also evidence suggesting that measures taken by schools may not have been as effective as expected. There are concerning signs that many teachers had completely no contact at all with a large number of students. In US, teachers estimated that their students spending very less time on learning as they did before the COVID-19 school closures (Gewertz, 2020).

Additional evidence shows that even when teachers made themselves available for online instruction and their instructional materials available online, many students lacked the means to access online classes and materials from home. Additionally, small, low-income schools were less likely providing online learning to all students and reported a higher percentage of students completely absent relative to Large, low-poverty schools.

There is also unsurety about whether virtual instruction, even when well-implemented and applied is that much effective of traditional face-to-face instruction. a solution for schools, colleges and institutional closing are online classes, which is a need in this COVID-19 pandemic but as a lack of proper skills, resources and material, both students and instructors face many challenges and difficulties including mental problems. (Alam, 2020; Bao, 2020).

Though online teaching is one of the promising alternatives to the physical classroom but the response of the students is much less to this online learning behaviour to lack of equality in digital field, and lack of access to modern technology, students from low-income family gets difficulty in this online learning environment

Sintema (2020) reported that probable drop in the pass percentage of students due to COVID-19 lockdowns in 2020 academic year. A survey from Bangladesh, a developing country, shows that some 17.2 million primary students and millions of students are waiting for their unpredictable higher education exams (Hasan, 2020). Another report showed that student's fear of losing academic year in New Delhi, India (NDTV, 2020). the anxiety is increasing in students about fear of academic year loss.

In this digital world around 25% of students from lower-income families do not have a home computer (Auxier & Anderson, 2020) and internet access (Huffman, 2018). inequality in

quality of e-learning, lack of motivation and support in e-learning, nonproper English knowledge, non-satisfactory access to digital technology and overall lack of e-learning material development observed as major issues in developing e-learning environment, because of these obstacles students are mentally frustrated to complete their courses successfully.

In addition, most student worry about academic year loss because the government and educational institute not taking proper action. The government is not managing proper schedule for millions of students who have recently passed their secondary school. Most e-Learning programs not run properly because the governmental agencies not planned them so well and in proper manner. Regular classes are now unreliable, not occurred in continuous manner in this pandemic academic year. Final year college students suffering much loss because they unable to give the public/government exams, they not becoming so sure about they complete their degree course.

Sr.no.	Incidences of loss	Its effects on students
1.	Unexpected closures of schools and colleges	it badly affected students in their academic environment
2.	COVID-19 school closures, summer breaks extended	student's achievement typically slows or declines over the summer months
3.	in post covid 19 some countries opened the school	some students miss the school due to lack of access to reliable transportation and need to care for family members
4.	loss of parental jobs and migration in lockdown period	Minority and low-income students have more absences
5.	absences of students	negative effects on end-of-year test scores
6.	The remote learning occurred in many schools and colleges	many teachers had no contact at all with a significant portion of students
7.	Small, low-income schools were less likely providing online learning to all students	higher percentage of students completely absent
8.	an alternate for institutional closure are online classes	students and instructors face numerous challenges and difficulties including psychological problems
9.	Online teaching and learning	The response and lack of equality in digital field, and lack of access to modern technology of students from low-income family.
10.	COVID-19 lockdowns	Students drop in the pass percentage
11.	the government and educational institute not taking proper action	student worry about academic year loss

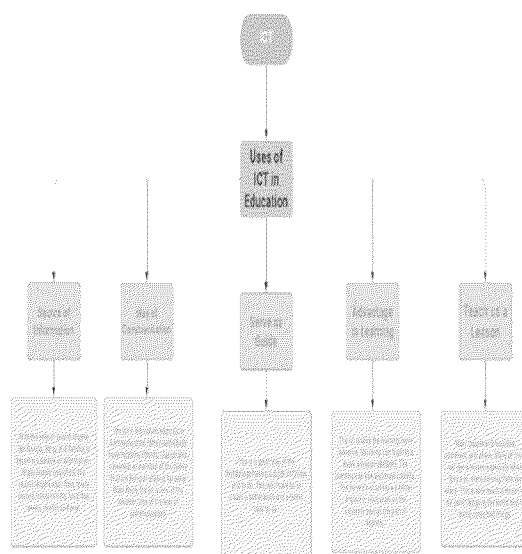
How the ICT Helped in Continuing the Education during Pandemic

The unexpected closure of schools due to COVID-19 come with some consequences on the education system worldwide. To control the Coronavirus pandemic the closure of schools played an important role. The unplanned closure of schools worldwide required the need to adopt and has to bring some action in most advanced technologies in education. This spreading disease of corona virus pandemic increased demand for online education. It is getting very easy and comfortable to get education at home with the help of technologies. Thus, the world is suffering from the COVID-19 Pandemic; the use of different advanced technologies in education becomes the new face for educational institutions, teachers and learners.

In the situation of closure of schools, colleges and institutes, lockdowns, isolation the advanced technologies becoming important day-by-day for student-teachers to communicate and in teaching learning process. Technology has a potential to provide education, information, knowledge, medical advice, support psychologically to support many people including parents, educators and students during and after pandemic.

Technology helps in reporting covid cases in different locations, regions, cities, states and countries, testing for covid effectively, provide medical advice and social distancing properly, it helps at very large extent to control and reduce COVID-19 Pandemic. In some cases drones and automated robots used by some industries and companies to deliver their product to minimize the human contact. During lockdown situation students could not stay calm and steady at home especially this generation is very filled with curiosity and excitement in nature. Therefore, technology plays a very important role for educators and learners occupies in effective and productive education that teaches them with entertainment and fun, with ease of language.

The schools and colleges who have implemented the advanced technology in their system before the corona pandemic situation getting much benefits in education than those education institutes who are started to use this technology or yet to start to implement them. Teachers and educators learning new technology to teach and they are adopting this new technology very effectively, students are also getting interest in learning from this advanced technology.



What are different ICT tools

Technology plays a vital role in education sector in the 21st century. the demand for technology in education has increased in teachers and educators which is moving them from traditional teaching to advanced digital teaching. by using technological approach teacher along with teaching playing many roles i.e., facilitators, mentors and motivators to guide and inspire the learners to learn many things with ease and interest. Technology makes easier of Remote learning, Distance learning, Virtual learning, Blended learning, Mobile learning, Distributed learning, Machine learning. Most of the part of education system getting turn into digital

The proper educational technologies open the gate to learning environment like Massive Open

Online Courses (MOOCs) and many education resources to fulfill the demand of learners (Onyema et al., 2019).

Online education is a general concept for teaching and learning online with the help of technology tools and platforms. there are various factors which determine the success of online education which are high speed internet connections, learning hardware, software and applications, digital skills properly built technological infrastructure etc. online education systems and materials are very much important in online learning. distance education already included this online learning for students from all over the country. the rise of digital technology aid in delivering the lectures fluently and effectively by using digital tools such as videos,

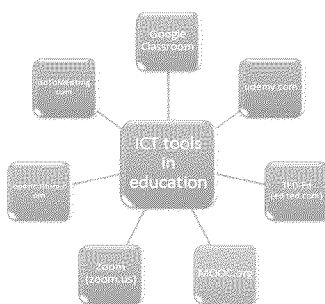
images, animations, presentations, simulations virtual classroom sessions and other instructional materials, resources and activities via the internet (Onlineeducation.com, 2020). with the increasing use of internet and mobile technologies worldwide, online education platforms also increasing and spreading, becoming popular in people. There are.

There are many digital tools and platforms which are used in education globally. Some of popular tools and platforms include-

1. GoToMeeting.com
2. Skype.com
3. Google Classroom/Open Online education (edu.google.com)
4. Youtube.com
5. Blackboard.com
6. udemy.com
7. coursera.org
8. memory.com
9. alison.com
10. edx.org
11. easyclass.com
12. vedamo.com
13. Khanacademy.org
14. TED-Ed (ed.ted.com)
15. Codeacademy.com
16. Stanford Online (Online.stanford.edu)
17. futurelearn.com
18. rcampus.com
19. learnopia.com
20. Peer 2 Peer University (p2pu.org)
21. Teachers pay Teachers (teacherspayteachers.com)
22. Thinkific (thinkific.com)
23. MOOC.org
24. openculture.com
25. academicearth.org

26. itunesU Free courses (apps.apple.com)
27. lessonpaths.com
28. memrise.com
29. funbrain.com (for kids)
30. whyville.net (for teens)
31. Edmodo (edmodo.com)
32. schoology (schoology.com)
33. clasdojo (clasdojo.com)
34. google hangouts (hangouts.google.com)
35. Zoom (zoom.us)
36. Whatsapp.com
37. google meet
38. testmoz.com
39. quizziz.com
40. unacademy

The use of digital technologies in education makes easier of online education, student-teacher interactions, connection and relationships.it improve the teaching-learning, content creation, course creation and sharing, evaluation and feedback. Teachers can communicate with students from anywhere and can arrange lectures, group study discussion, revision session and examination at any time of convenience. Educators and students can optimize the learning according to their ease, comfort and need. And to learn their digital skills in line with emerging trends in education. The knowledge of technology develops the skill in educators and students'interest, confidence, creativity, employability and also fully prepare them for their bright future.



Advantages of ICT tools

ICT in education makes a major change in learning of students and teaching of teacher. students now a days use computers more often and for a much larger range of applications (Volman, 2005). Several researches showed that those students who are using ICT tools learning effectively than those who do not. The use of ICT in education plays a vital role in more effective learning and increase the curiosity and making students responsible. This reduces the more stress on teacher about teaching, guiding and recommendation. teacher can now freely and creatively transmit the knowledge to students, the step-by-step progress in using computers changes from learning about computers, to learning computers, and finally to learning with computers (Volman, 2005).

In recent years it is shown that the interest in computer and internet is growing, these can be use with efficiency and effectively in education sectors in all category. Voogt's (2003) description on the importance, distinguished ICTs as an object for study, teaching, learning a facet of a discipline or a profession, and a medium of instruction. In the traditional teaching, a teacher transmitting the knowledge to students which is the only role of teacher but constructivist approach in learning is genuine and learner is at centre. In ICT the computer plays important role in constructivist approach where teacher can construct a digital and simulated ecosystem for student for better understanding and gaining of concepts and information.

ICT Exhibiting a greater impact in teaching profession in the classrooms. Their role in different way of teaching, school innovation and community service are important. A research review by Kozma (2005) suggests three significant concepts regarding ICTs impact on education are firstly that students scoring high in school or college subjects with learning a completely new skill in to require the nation for develops the economy. secondly the change of teacher's attitude toward the new teaching methods and develop the educators with required skills of technology. finally increase innovation in schools and access the community member to adult education.

The following important functions of ICT in education according to Voogt (2003).

- **ICT used as a tool which help in making** assignments, collecting data and documentation, communicating, and doing research. ICT can be used separately irrespective the subject matter

- ICT as tools for teaching and learning, in this there are many platforms for teachers to teach and learns to learn. it appears in many form as theoretical and practice form, in simulations and educational networks.
- ICT as a tool for organization and management in schools and colleges.

ICT provide a great opportunity to deliver effective quality education.

Education provide great deal of advantage to improve the life of people, the new and advanced technology increase the quality and efficiency of education.it is important to give the access of ICT to our children, parents, and teachers to improve the quality of education and provide technical skills to human resources. this increase productivity, creativity and overall development.

Here are some ICT benefits to the classroom and the education system

- Mainly try to focus on student centred teaching
- Provide great deal in student-student, teacher-teacher and student-teacher communication and knowledge transmission.
- Provide access of many technology to teachers to deliver the teaching.
- Create greater interest for learning among students
- New source of knowledge and information provided to teacher
- Make ready the learner for the world.
- Provide distance learning worldwide for learners.
- Learners can access additional resources to acquire new skills and knowledge.
- ICT help in improving the quality and efficiency of educational administration and management at every level from the classroom, school library, through the school.
- Broadening the range of quality education for teacher and students at all level of education system.

Higher Education Institutes introduced courses of bachelors and masters in computer application, computer sciences, artificial intelligence and information technology.

many private training institutions were also established to train computer literacy like tally ,MH-CIT,DTP etc.

Limitations of ICT Tools

This immediate shift to online education in many countries getting difficulty to implement them properly, without appropriate infrastructures and facilities that need online education. The

problem of advanced technology is also a big issue particularly for learners in rural areas. this happening because the lack of required facility, infrastructure and skilled man power to implement the online education efficiently.

ICT as advance technology aids in education system have its advantages, but along with this many limitations are there to use it efficiently. Many people believe that ICT is a kind of remedy to school and college problems. However, there are many limitations of ICT to use in education, Limitation can be in three different types. Those could be 1) Limitation for Teachers 2) Limitation for students 3) Limitation in Technology. All of these could all over limit the benefit the ICT. Teachers view for ICT is important in teaching-learning process, teacher must be positive about implementing the ICT in education sector. But some educators think that there are many difficulties to produce maximum benefit from the ICT. Some teacher gets difficulty in acquiring the necessary IT skills to use the digital technology in education. They feel uncomfortable, gets anxiety around this advance education technology. Unless teachers develop some basic skills of advanced digital technology and interest to experiment with students, unable to use the maximum potential of ICT in education (Brosnan, 2001).

Another type of limitation is related with students, the 21st generation students are expert in appropriate use of computer and the internet. but the students have a common behaviour in spending the free time for relaxation and enjoyment activity and have less time to learn and study.

Yousef and Dahmani (2008) described online gaming, use of social Medias likefacebook, twitter, instagrams, chat rooms, and other communication channels as perceived drawbacks of ICT use in education, students easily attracted to these sites instead of studying and learning. Students get easily involve in online gaming and chat rooms which distract them from effective learning and doing assignment (Kulik, 1994). These are the strong limitation in student's category which are major concern about student's generation if the ICT not used effectively instead of producing benefit in learning,it could produce some negative results for example the bombardment of information and knowledge on students if they use internet, teacher have to take much efforts to provide them the accurate and suitable knowledge resources for learning and studying. Teacher also have to control the students from going on unnecessary websites and focus them on study and learning material

different literature provide evidence about limitations of ICT use in education as related to student behaviour

- Computers decrease the potential of imaginations in students.
- More dependence on ICT tools limits the thinking and analytical skills of students.
- Students receive a limited understanding of the information they receive from internet and downloads.
- A vision problem occurring in students who staying in front of screen for longer period of time while learning.
- Students could visit easily on unwanted rather than learning websites.
- Students could focus less on learning and tend to waste more time on internet and computer.
- Students will lack the ability of handwriting and presentation skill orally.
- The third kind of limitation is technological, the value of technology and its material and infrastructure is high and the maintenance cost requires the same. high cost of its parts and the attack of multiple computer virus and malfunctioning of technology, continuous interruption of internet and electric power supply are all the limitation related to technology use in education

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17. Post Covid Situation in Education

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Abstract

The impact of pandemic COVID-19 is determined in each sector round the world. The education sectors of Republic of India moreover as world area unit badly plagued by this. It's implemented the globe wide lock down making terribly unhealthy impact on the students' life. Around thirty two large integer learners stopped to move schools/colleges and every one instructional activities halted in Republic of India. The occurrence of COVID-19 has tutored North American country that amendment is inevitable. It's worked as a catalyst for the academic establishments to grow and prefer platforms with technologies, that haven't been used before. The education sector has been fighting to survive the crises with a unique approach and digitizing the challenges to scrub away the threat of the pandemic. This paper highlights some measures taken by Govt. of Republic of India to supply seamless education within the country . How to handle the education system once pandemic in post covid state of affairs. Each the positive and negative impacts of COVID-19 on education area unit mentioned and a few fruitful suggestions are pointed to hold out instructional activities throughout the pandemic state of affairs.

Introduction

The pandemic Covid-19 has adjoined whole world and compelled the human society to keep up social distancing. It's considerably noncontiguous the education sector that could be a important determinant of a country's economic future. On Gregorian calendar month eleven, 2020, the globe Health Organization (WHO) projected AN official name of the virus COVID-19, AN descriptor for Corona virus unwellness 2019. it absolutely was 1st known In Wuhan, China on December 31, 2019. 1st death by COVID- nineteen was the 61-year recent man in Wuhan, China on Jan eleven, 2020. United Nations agency declared COVID-19 as a pestilence on March eleven, 2020. the primary case of the COVID-19 pandemic in Republic of India was according on thirty Jan 2020 within the state of Kerala and also the affected had a travel history from

Wuhan, the primary death because of COVID-19 was according in Republic of India on March twelve, 2020. it's affected over four.5 million peoples worldwide (WHO). per the UN agency report, it had affected over ninetieth of total world's student population throughout middle April 2020 that is currently reduced to almost sixty seven throughout June 2020. occurrence of COVI-19 has wedged over a hundred and twenty crores of scholars and youths across the world. In India, additional than thirty two crores of students have been plagued by the assorted restrictions and also the nationwide internment for COVI-19. As per the UN agency report, regarding fourteen crores of primary and thirteen crores of secondary students area unit affected that area unit 2 principally affected levels in Republic of India. After perceptive the corona virus pandemic state of affairs the United Nations agency suggested to keep up social distancing because the 1st bar step. So, each country started the action of internment to separate the contaminated individuals. The education sectors as well as faculties, schools and universities became closed. categories suspended and every one examinations of colleges, schools and universities as well as entrance tests were delayed indefinitely. Thus, the internment destroyed the schedules of each student. although it's AN exceptional state of affairs within the history of education, COVID-19 has created several opportunities to return out of the rigorous schoolroom teaching model to a replacement era of digital model. The internment has compelled several instructional establishments to china (Wikipedia). Cancel their categories, examinations, internships etc. and to settle on the net modes. Initially, the educators and also the students were quite confused and didn't perceive the way to cope up with the case of this explosive crisis that compelled closure of the academic activities. however latter on all complete that the internment has tutored such a large amount of lessons to manage with the emergence of such pandemics. Thus, COVID-19 has created several challenges and opportunities for the academic institutes to strengthen their technological data and infrastructure .The internment has given them a ray of hope for academics and students to continue their instructional activities through on-line. The academics assigned work to students via net, delivered lectures through live video conferencing victimization totally different Apps like Zoom, Google meet, Facebook, Youtube, and Skype etc. There area unit WhatsApp teams of guardians, teachers, students and oldsters for emotive communication through that they're perpetually in contact to share their difficulties through this e-medium. in a very nation like China that practices a significantly additional centralization system, a amendment to digital learning could also be easier. Even in a very nation just like the

U.S.A, there area unit some low- pay students United Nations agency don't approach broad bands and unable to use processed learning arrangement (Study Abroad Life). identical is that the state of affairs that happens with Republic of India wherever not each student is well equipped with the high-speed net and digital gadgets and area unit on these lines of suffer. various advanced instructional establishments in Republic of India don't seem to be conjointly equipped with digital facilities without delay to cope up with explosive amendment from ancient education originated to the net education system.

Objectives

The present analysis paper centered on the subsequent objectives

- To enlighten numerous measures taken by Govt. of Republic of India for education sector throughout this pandemic.
- To highlight numerous positive impact of COVID-19 on education.
- To enlist some negative impacts of COVID-19 and to place some effective suggestions for continued education throughout the pandemic state of affairs.

Methodology

Data and knowledge conferred in current study area unit collected from numerous reports ready by national and international agencies on COVID-19 pandemic. data area unit collected from numerous authentic websites. Some journals and e-contents concerning impact of COVID-19 on instructional system area unit referred.

- Initiatives of Govt. of India on education throughout Covid-19 to stop unfold of pandemic COVID-19, the govt. of India has taken variety of preventive measures. The union government declared a national lock-down of all academic establishments on sixteen March 2020. Central Board of instruction (CBSE) delayed all examinations of secondary and better secondary faculties on March eighteen, 2020 throughout India. CBSE free revised pointers for examination centers to conduct examinations by maintaining a distance of a minimum of one meter between the scholars taking the exam with a category not having over twenty four students. If the rooms of the examination centers square measure tiny then the scholars ought to be divided into totally different rooms consequently.
- The Union Public Service Commission (UPSC) delayed the interview for the Civil Services Examination 2019 .equally the foremost of the state Governments and

different academic boards delayed examinations because of natural event of COVID-19. Govt. of India has ascertained in some unspecified time in the future nationwide Janta-curfew on March twenty two and implement imprisonment from March 25, 2020 forwards in numerous phases. Govt. of India has been extending imprisonment periods from time to time adopting totally different ways to fight with the pandemic however academic establishments remained closed unendingly. The imprisonment half-dozen.0 was declared on Saints Peter and Paul, that is effective from first Gregorian calendar month to thirty first Gregorian calendar month 2020 with some less restriction in different sectors except education. most authorities ministries have taken measures to make sure that the educational activities of faculties} and colleges don't hamper throughout the imprisonment amount. they need schooled the colleges to carry all their categories on-line. The imprisonment has accelerated adoption of digital technology. it's provided an opportunity to develop new and improved skilled skills/knowledge through on-line learning in additional economical and productive method.

- On-line learning is that the best resolution throughout this pandemic Covid-19 state of affairs . So, the digital India vision of the govt. is rising as an important tool for finding the current crisis because of Covid-19. it's a proven fact that technology-based education is additional clear with all respect. viewing this challenge {of colleges|offaculties|of faculties} and schools being shut, government of India, furthermore as state governments and personal players have undertaken correct initiatives. The Ministry of Human Resource Development (MHRD) has created many arrangements, as well as on-line portals and academic channels through Direct to Home TV, Radios for college kids to continue learning. throughout imprisonment, students square measure exploitation well-liked social media tools like WhatsApp, Zoom, Google meet, Telegram, Youtube live, Facebook live etc. for on-line teaching learning system. ICT initiative of MHRD (e- Broucher- <https://mhrd.gov.in/ict-initiatives>) may be a distinctive platform which mixes all digital resources for on-line education. The digital initiatives of MHRD for secondary furthermore as education throughout COVID-19 square measure listed as below: instruction
- Diksha portal contains e-Learning content for college kids, teachers, and fogeys aligned to the programme, as well as video lessons, worksheets, textbooks and assessments.

beneath the steerage of its national boards of education (CBSE) and NCERT, the content has been created by over 250 academics World Health Organization teach in multiple languages. The app is out there to use offline. it's over eighty,000 e-Books for categories one to twelve created by CBSE, NCERT in multiple languages. The contents also can be viewed through QR codes on textbooks. The app may be downloaded from IOS and Google Play Store.

Website: <https://diksha.gov.in> or <https://seshaqun.gov.in/shaqun>

- E-Pathshala is AN e-Learning app by NCERT for categories one to twelve in multiple languages. The app homes books, videos, audio, etc. aimed toward students, educators and fogeys in multiple languages as well as Hindi, Urdu, and English. during this internet portal NCERT has deployed 1886 audios, 2000 videos, 696 e-Books and 504 Flip Books for categories one to twelve in numerous languages. Mobile Apps is out there. Website: <http://epathshala.nic.in> or <http://epathshala.gov.in>.
- National Repository of Open academic Resources (NROER) portal provides a bunch of resources for college kids and academics in multiple languages as well as books, interactive modules and videos as well as a bunch of STEM-based games. Content is mapped to the programme for categories 1-12, as well as aligned resources for academics. it's a complete of 14527 files as well as 401 collections, 2779 documents, 1345 interactive, 1664 audios, 2586 pictures and 6153 videos on totally different languages. Website: <http://nroer.gov.in/welcomeHigher Education>
- Swayam is that the national on-line education platform hosting 1900 courses covering each faculty (classes nine to12) and better education (under graduate, post graduate programs) altogether subjects as well as engineering, humanities and social sciences, law and management courses. The distinctive feature is that, it's integrated with the standard education. Credit transfers square measure doable for SWAYAM courses (max. 20%). Website: <https://swayam.gov.in/>
- SwayamPrabha has thirty two DTH TV channels transmission academic contents on twenty four x seven basis. These channels square measure out there for viewing all across the country exploitation doctor's degree Free Dish Set prime Box and Antenna. The channel schedule and different details square measure out there within the portal. The channels cowl each faculty education (classes nine to 12) and better education

(undergraduate, postgraduate, engineering free youngsters, business courses and teacher training) in arts, science, commerce, humanities, social sciences and humanities subjects, engineering, technology, law, medicine, agriculture. Website: <https://swayamprabha.gov.in/>

- E-PGPathshala is for postgraduate students. Postgraduate students will access this platform for e- books, on-line courses and study materials throughout this imprisonment amount. The importance of this platform is that students will access these facilities while not having net for the full day. Website: <https://epgp.inflibnet.ac.in/>

Following pictures depict how teachers did online teaching during pandemic and post pandemic

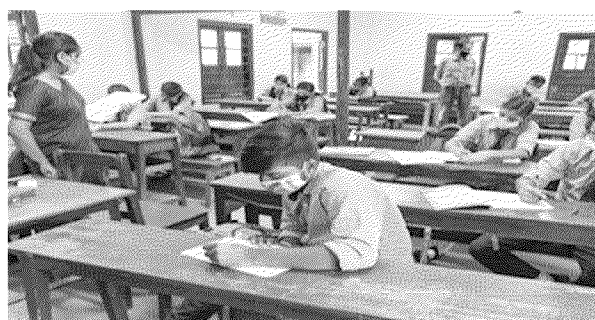


Fig1: Post Covid Teaching

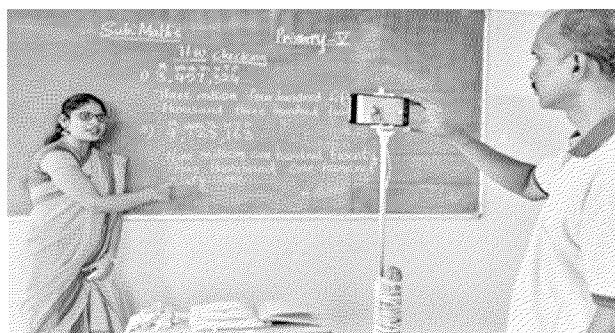


Fig2: During Covid Teaching

Precautions to be Taken

- Teaching staff has been tested before joining the school and colleges.
- Colleges and schools are set to be regularly sanitized before and after college timings.
- College had been isolated until the reports of covid test of all the college staff declared.
- Shortened the timing of colleges and created the batches of several students in order to avoid rush or to make social distancing.

- No programs has been taken to take care about the social distancing.
- Cultural festivals to be conducted online.
- Other competition inter college to be onducted online.

Positive Impact of COVID-19 on Education

Though the natural event of COVID-19 has created several negative impacts on education, instructional establishments of Asian nation have accepted the challenges and making an attempt their best to supply seamless support services to the scholars throughout the pandemic. Indian education system got the chance for transformation from ancient system to a brand new era. The subsequent points could also be thought-about because the positive impacts.

- Move towards mixed Learning: COVID-19 has accelerated adoption of digital technologies to deliver education. Instructional establishments touched towards mixed mode of learning. It inspired all academics and students to become a lot of technology savvy. New ways in which of delivery and assessments of learning opened Brobdingnagian opportunities for a significant transformation within the space of syllabus development and pedagogy. It additionally provides access to giant pools of learners at a time.
- Rise in use of Learning Management Systems: Use of learning management systems by instructional establishments became an excellent demand. It opened an excellent chance for the businesses those are developing and strengthening learning management systems to be used instructional establishments.
- Enhance the employment of sentimental copy of learning material: In imprisonment scenario students weren't ready to collect the arduous copies of study materials and therefore most of the scholars used of sentimental copies materials for reference.
- Improvement in cooperative work- there's a brand new chance wherever cooperative teaching and learning will combat new forms. Collaborations can even happen among faculty/teachers across the planet to learn from one another.
- Rise in on-line meetings- The pandemic has created a huge rise in group discussion, virtual conferences, and webinars and e-conferencing opportunities.
- Enhanced Digital Literacy: The pandemic scenario elicited individuals to find out and use digital technology and resulted in increasing the digital acquirement.

- Improved the employment of electronic media for sharing information: Learning materials square measure shared among the scholars simply and therefore the connected queries square measure resolved through e-mail, SMS, phone calls and exploitation totally different social Medias like WhatsApp or Facebook.
- World wide exposure: Educators and learners are becoming opportunities to move with peers from round the world. Learners tailored to a global community.
- Better time management: Students square measure ready to manage their time a lot of expeditiously in on-line education throughout pandemics.
- Demand for Open and Distance Learning (ODL): throughout the pandemic scenario most of the scholars most popular ODL mode because it encourages self-learning providing opportunities to find out from numerous resources and customized learning as per their desires.

Negative Impact of COVID-19 on Education

Education sector has suffered tons thanks to the natural event of COVID-19. It's created several negative impacts on education and a few of them square measure as pointed below

- Educational activity hampered: categories are suspended and exams at totally different levels deferred. Totally different boards have already deferred the annual examinations and entrance tests. Admission method got delayed. thanks to continuity in imprisonment, student suffered a loss of nearly three months of the total school year of 2020-21 that goes to additional deteriorate the case of continuity in education and therefore the as students would face a lot of issue in resuming schooling once more when an enormous gap.
- Impact on employment: Most of the accomplishment got deferred thanks to COVID-19 Placements for college students could even be affected with firms delaying the on board of scholars. Percentage is anticipated to be redoubled thanks to this pandemic. In India, there's no accomplishment in Govt. sector and contemporary graduate's concern withdrawal of their job offers from non-public sectors attributable to this scenario. The Centre for observance Indian Economy's estimates on state shot up from eight.4% in mid-March to twenty third in early Gregorian calendar month and therefore the urban percentage to thirty.9% (Educationasia.in). once the state will increase then the education step by step decreases as individuals struggle for food instead of education.

- Unprepared teachers/students for on-line education- Not all teachers/students square measure sensible at it or a minimum of not all of them were prepared for this unforeseen transition from face to face learning to on-line learning. Most of the academics square measure simply conducting lectures on video platforms like Zoom, Google meet etc. which can not be real on-line learning with none dedicated on-line learning platform.
- Reduced international employment opportunity- Some could lose their jobs from different countries and therefore the pass out students might not get their job outside Asian nation thanks to restrictions caused by COVID-19. several Indians may need came home when losing their jobs overseas due to COVID-19. Hence, the contemporary students United Nations agency square measure possible to enter the work market shortly could face issue in obtaining appropriate employment. several students United Nations agency have already got jobs through field interviews might not be ready to be a part of their jobs thanks to imprisonment. The Indians United Nations agency are doing their jobs abroad could lose their jobs. Recent graduates in Asian nation square measure of additionally fearing for withdrawal of job offers from company sectors attributable to movement restriction within the current pandemic scenario.
- Increased responsibility oldsters|ofoldsters|of fogeys} to teach their wards: Some educated parents square measure able to guide however some might not have the adequate level of education required to show kids within the house.
- Loss of nutrition thanks to faculty closure: twelve noon meals could be a faculty meal programme of the govt of Republic of India that is designed to offer higher the organic process food to school-age kids nationwide. The closure of colleges has serious implications on the daily nutrition of scholars because the mid-day meal schemes have briefly been shut. numerous studies have observed that mid-day meals also are a very important causative issue for increased entering in the faculties
- Access to digital world: As several students have restricted or no net access and plenty of students might not be able to afford laptop, laptop computer or supporting mobile phones in their homes, on-line teaching-learning might produce a digital divide among students. The internment has hit the poor students terribly laborious in Republic of

India as most of them square measure unable to explore on-line learning consistent with numerous reports. so the net teaching-learning technique throughout pandemic COVID-19 might enhance the gap between rich/poor and urban/rural.

- Access to world education: The pandemic has considerably discontinuous the upper education sector. an outsized variety of Indian students WHO square measure listed in several Universities abroad, particularly in worst affected countries square measure currently departure those countries and if true persists, within the end of the day, a there'll be a major decline within the demand for international instruction.
- Payment of colleges, faculties fee got delayed: throughout this internment most of the folks can be facing the state state of affairs in order that they might not be able to pay the fee for that specific time periods which can have an effect on the personal institutes.

Suggestions:

- India ought to develop inventive ways to confirm that every one kids should have property access to learning throughout pandemic COVID-19. The Indian policies should embrace numerous people from various backgrounds together with remote regions, marginalized and minority teams for effective delivery. • Immediate measures square measure needed to minimize the consequences of the pandemic on job offers, berth programs, and analysis comes.
- Many on-line learning platforms provide multiple programmes on identical subjects with totally different levels of certifications, methodology and assessment parameters. So, the standard of programmes might take issue across totally different on-line learning platforms. Therefore, institution of quality assurance mechanisms and quality benchmark for on-line learning programmes should be developed and offered by instruction establishments (HEIs) in Republic of India keeping seeable of rapid climb of the net learning platforms
- Across the world, Indian mental object is documented for its scientific innovations, values and advantages to develop property technologies and medicines and this information systems in numerous fields ought to be integrated with a current thought instruction system.
- Government and academic institutes ought to arrange to continue the tutorial activities maintaining social distancing. 30-40% students and lecturers might attend

schools/colleges in 2 shifts per day to hold on instructional activities by obeying pointers for COVID-19.

- At current times, access to technology Associate in Nursing net is an pressing demand. So, the digital capabilities and also the needed infrastructure should reach to the remotest and poorest communities to facilitate the scholars to continue their education throughout the pandemics. There's a desire to deploy public funds to mend the web gap and make sure that students still learn digitally. The state governments/private organizations ought to come back up with concepts to handle this issue of digital education.
- Some important problems related to distance learning ways just like the convenience and access to digital devices with net property, the necessity for safe learning areas, making capabilities for lecturers, families and students to control and navigate digital devices, and fascinating lesson plans for disabled students and different marginalized teams ought to be self-addressed by Govt. and also the stakeholders.

Conclusion

COVID-19 has wedged vastly to the education sector of Republic of India. Tho' it's created several challenges, numerous opportunities also are evolved. The Indian Govt. and {different|totally totally different|completely different} stakeholders of education have explored the chance of Open and Distance learning (ODL) by adopting different digital technologies to cope up with the current crisis of COVID-19. Republic of India isn't absolutely equipped to form education reach all corners of the state via digital platforms. the scholars WHO aren't privileged just like the others can suffer thanks to the current alternative of digital platforms. however universities and also the government of Republic of India square measure unrelentingly attempting to return up with an answer to resolve this drawback.

The priority ought to be to utilize digital technology to form Associate in Nursing advantageous position for countless young students in Republic of India. it's want of the hour for the tutorial establishments to strengthen their information and knowledge Technology infrastructure to be prepared for facing COVID-19 like things. Even if the COVID-19 crisis stretches longer, there's Associate in Nursing pressing got to take efforts on most utilization of on-line platforms in order that students not solely complete their degree during this school year however conjointly to induce prepared for the long run digital orientating atmosphere. The

construct of “work from home” has larger connectedness in such pandemic state of affairs to cut back unfold of COVID-19. Republic of India ought to develop inventive ways to confirm that every one kids should have property access to learning throughout pandemic COVID-19. The Indian policies should embrace numerous people from various backgrounds together with remote regions, marginalized and minority teams for effective delivery of education. As on-line observe is benefitting the scholars vastly, it ought to be continuing once the internment. additional elaborated applied math study is also undertaken to explore the impact of COVID-19 on education system of Republic of India.

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18. PPST Covid-19 Situation in a Facile Approach for the Synthesis and Spectral Characterization of Coumarin derivatives

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Abstract

An effective approach was recognized using lanthanum chloride as catalyst to obtain Coumarine derivatives under ambient temperature condition. The synthesis of Coumarine has been achieved via one pot reaction of Resorcinol, EAA using lanthanum chloride as catalyst in solvent ethanol. All the synthesized derivatives were characterized by $^1\text{H-NMR}$, IR.

Keywords- β - Coumarine, Schiff's base, EAA.

Introduction

Azomethine Group (-C=N-) Containing Compound typically known as Schiff base have been synthesized by the condensation of primary amine with active carbonyl. Schiff base has the significant class of compound in medicinal and pharmaceutical industry with several biological application that include antibacterial and antitumor activity they have been studied extensively as a class of ligand and are known to co-ordinate with metal ion through the azomethine nitrogen atom.

Similarly Coumarine derivative has been a great interest because of their role in natural and synthetic organic chemistry in many products which contain Coumarine subunit exhibit biological activity such as molluscicides¹⁻⁴, anthelmintic, hypnotic, insecticidal⁵ activities and some are serving as anticoagulant agent³ and fluorescent brightness. Coumarine containing Schiff base are expected to have enhanced antitumor and biological activities. It is well established that the biological activity associated with the hydrogen compound attributed to the presence of active pharmacophore.

Experimental

All solvents were laboring as commercial anhydrous mark without further Refining. The column chromatography was carried out over silica gel (100120 esh). Melting points determined by open capillary tube. ^1H NMR spectra were recorded on a Bruker 300 MHz spectrometer in DCI_3 solvent.

General Procedure for the Synthesis of Coumarin

The Mixture of resorcinol (0.01 mole) and EAA (0.01 mole) and 0.2 gm of ZnCl_2 was added in 20 ml of ethyl alcohol in round bottom flask the reaction mixture was stir for 45 min. The reaction mixture was cool with stirring. The formation of product was monitor on thin layer chromatography. The isolated crude product Coumarin is further purified by the washing in acetone.

General Procedure for the One Pot Synthesis of Schiff's Base Coumarin Derivatives

The Coumarin and Chloroacetyl chloride taken in round bottom flask congaing 15 ml ethyl alcohol, along with hydrazine and aromatic amine, the reaction mixture was stir for 60 min. the purity of product was monitor on TLC, the solid final product was isolated and recrystallize using ethyl alcohol.

General Scheme

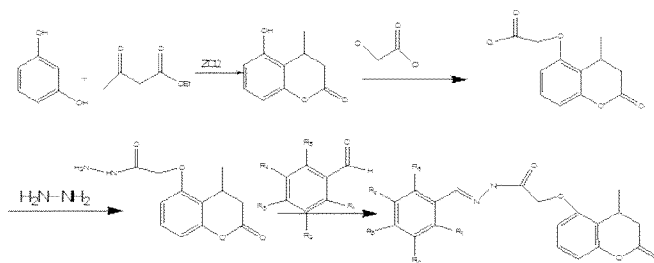


Table - Synthesis of 1a to 5f derivatives in terms of M. P. and Yield

Sr. No.	R ₁	R ₂	R ₃	R ₄	R ₅	M.P. °C	% Yield
1a.	H	H	NO ₂	H	H	276	65
2b.	OCH ₃	H	NO ₂	H	H	280	60
3c.	Cl	H	Cl	H	H	296	55
4d.	H	NO ₂	H	H	OH	258	60
5f.	NO ₂	H	NO ₂	H	H	266	80

1. 1a :-M.P.276⁰C

FT-IR 770 cm^{-1} for aromatic C-C stretching, 1190 cm^{-1} for $-\text{NO}_2$ for stretching 1630 cm^{-1} for $\text{C}=\text{O}$ stretching, 1090 cm^{-1} for C-N stretching, 2350 cm^{-1} for CN stretching,

NMR : δ 3.2,d for 2H, δ 5.9 s for 1H, δ 2.1 t for 2H,1.9 d for 3H, δ 6.6to 8.0 m for 7H.

2. **2b :-M.P.280 °C.**

FT-IR754 cm^{-1} for aromatic C-C stretching, 1120 cm^{-1} for C-O-Cstretching, 1160 cm^{-1} for C-N stretching ,1230 cm^{-1} for-NO₂for stretching, 1690 cm^{-1} for C=O stretching, 1610 cm^{-1} for C=O amide stretching,

NMR δ 3.8 t, for 3H, δ 3.9d for 2H, δ 2.1m for 1H, δ 4.5 s for 2H, δ 5.3 s for 1H δ 7.6to 8.4 m for 6H.

3. **3CM.P.296 °C**

FT-IR: 770 cm^{-1} for aromatic C-C stretching, 890 cm^{-1} for C-Cl stretching,1150 for C-O-C stretching, 1650 cm^{-1} forC=Ostretching , 1140 cm^{-1} for C-N stretching, 1590 cm^{-1} for C=O Amide stretching.

NMR: δ 3.2,d for 2H, δ 3.9t for 1H, δ 5.1 s for 1H δ 6.9to 8.5 m for 6H.

4. **4dM.P.258 °C.**

FT-IR 746 cm^{-1} for aromatic C-C stretching, 1260 cm^{-1} for-NO₂for stretching, 1710 cm^{-1} for C=O stretching ,1610 cm^{-1} for C=O Amide stretching,1160 cm^{-1} for C-N stretching.

NMR δ 3.8d, for 1H, δ 2.5m for 3H, δ 2.1 d for 3H, δ 5.6 s for 1H, δ 6.6to 8.4 m for 6H.

5. **5f M.P.266°C.**

FT-IR 660 cm^{-1} for aromatic C-C stretching, 1190 cm^{-1} for-NO₂for stretching, 1730 cm^{-1} for C=O stretching ,1570 cm^{-1} for C=O Amide stretching,1780 for -NO₂double bond stretch, 1160 cm^{-1} for C-N stretching.

6. **NMR** δ 3.8 d, for 1H, δ 2.7m for 3H, δ 2.6 d for 3H, δ 5.9 s for 1H, δ 7.6to 8.9 m for 6H.

Result and Discussion

Herein an effective approach was developed for the synthesis of o-substituted Schiff's Base Coumarin derivatives in simple method with good yield, by using a simple and non-hazardous solvent ethyl alcohol at room temperature. The ¹H NMR and IR Spectra of the intact five derivatives show above is good with respect to the structure. The synthesized derivatives may be implicated as an informative resource for pharmaceutical industry, Agriculture Field and poultry Science.

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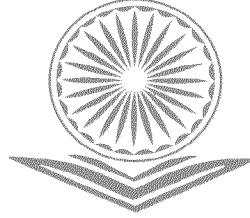
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1. Post COVID-19 Situation in Economics

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Abstract

On March eleven, 2020, the novel Corona virus malady (COVID-19), was represented as a deadly disease by World Health Organization (WHO). Globally, the COVID-19 has not solely affected the general public health socially however conjointly has strictly affected economically. Substantial declines in financial gain increase in state, and distractions within the transportation, amenities, and industrial sectors are amongst the key issues of the pandemic malady extenuation. Moreover, the governments of most of the countries underestimated the menaces of COVID-19 unfold and were generally responsive for the calamities in their several countries. As eruption of this pandemic isn't doubtless to wane within the near future, preventive actions a necessity to forestall infection unfold, save individuals lives and conjointly to save lots of the economic wealth. During this review, supported the current information and obtainable literature, we've incontestable the assorted aspects of post-COVID-19 effects over the social and economic phases worldwide. Moreover, the proof primarily based information are summarized relating to threats, social influences, scientific upgrades, ethical dynamics, stress and adapting within the post-COVID-19 things.

Keywords: Corona virus, COVID-19, world crisis, Social and economic impacts, fortification.

Introduction

The world has witnessed many epidemics like the Spanish contagious disease of 1918, eruption of HIV/AIDS, severe acute respiratory syndrome (Severe Acute metabolism Syndrome), MERS (Middle East metabolism Syndrome) and hemorrhagic fever. within the past, Republic of India has had to touch upon diseases like the little pox, plague and infantile paralysis. However, the Novel Corona virus Covid-19 that originated in China in November-December 2019 and over succeeding few months quickly unfold to the majority countries of the globe has clothed to be one among the largest health crisis in our history. India recorded the

primary case of the malady on Jan thirty, 2020. Since then the cases have hyperbolic steady to around 33610 total confirmed cases and around 1075 deaths (as on thirty Gregorian calendar month 2020). Republic of India has recorded lower variety of cases compared to different countries, particularly those within the developed world, that are badly affected. The global Covid-19 pandemic, that is inflicting 2 types of shocks on countries: a health shock associate degreed an economic shock. Given the character of the malady that is extremely contagious, the ways in which to contain the unfold embrace policy actions like imposition of social distancing, self-isolation reception, closure of establishments, and public facilities, restrictions on quality and even imprisonment of a complete country. so as to curb the unfold of the virus, the govt. of Republic of India declared a 3 week long nationwide imprisonment beginning twenty five March 2020 and any extended to three might. The eruption of COVID-19, initial in China and currently having being confirmed in additional than a hundred ninety countries, has emerged as a key risk to human health in addition as world growth outlook through various channels like trade, production and provide chain disruptions; decline in demand; lower business enterprise and business travel; loss of capitalist confidence; and productivity losses from the health impact on morbidity and mortality of labor force. The eruption has given challenges for the Indian economy currently, inflicting severe tumultuous impact on each demand and provide facet parts that has the potential to derail India's growth story. consistent with the study by the Federation of Indian Chambers of Commerce and business (FICCI) the economy can impact the economy entirely.

Impact on Financial Market

Bigger uncertainty concerning the long run course and repercussion of Covid-19 has conjointly created the monetary market extraordinarily volatile, resulting in vast crashes and wealth erosion, that successively is impacting consumption levels. one among the key slides within the domestic equity markets was seen on March twelve, once following the trend of the worldwide equity markets, each the mad cow disease Sensex and NSE swell crashed by quite 8 May 1945 in a very single day. The mad cow disease Sensex born over two,919 points – its biggest one-day fall in absolute terms whereas the NSE swell born by 868 points. Associate degree calculable Rs ten hundred thousand large integer of market cap was reportedly wiped off because of this single day fall. The autumn has continued until date as investors resorted to relentless commercialism amid rising cases of corona virus. On March 19, Indian equity markets

once more plunged to new low. Sensex closed 581 points lower at twenty eight, 288 and sell fell 205 points to finish at eight, 263. With equity markets doubtless to stay volatile in future in addition, any wealth erosion of investors is predicted. However, on thirty Gregorian calendar month Sensex gained 997 points and closed at encouraging 33717 points.

1. Supply Side Impact - On the availability facet, closure of factories and therefore the ensuing delay in provide of products from China has affected several Indian producing sectors that supply their intermediate and final product necessities from China. Some sectors like vehicles, prescribed drugs, natural philosophy, chemical merchandise etc. face associate degree at hand staple and element shortage. This is often hampering business sentiment and moving investment and production schedules of corporations. Besides having a negative impact on imports of vital raw materials, the lag in producing activity in China and different markets of Asia, Europe and therefore the U.S.A. is impacting India's exports to those countries in addition.

2. Impact on International Trade - China has been a serious marketplace for several Indian merchandise like ocean food, petrochemicals, gems and jewelry etc. The eruption of coronavirus has adversely compact exports of those things to China. As an example, the fisheries sector is anticipated to incur a loss of quite Rs one, 300 large integer because of fall in exports. Similarly, Republic of India exports three hundred and sixty five days of its diamonds to China. The cancellation of 4 major trade events between February associate degree Gregorian calendar month is probably going to cause an calculable loss of Rs eight,000-10,000 large integer in terms of business chance for Jaipur alone. Republic of India conjointly exports thirty fourth of its petrochemicals to China. Because of exports restrictions to China, organic compound merchandise is expected to ascertain a discount.

Impact of COVID 19 on Indian Economy

The broad imprisonment has brought nearly all economic activities to associate degree abrupt halt. Though, the availability of essential commodities as well as drugs has been ensured uninterrupted by the govt. The disruption of demand and provide forces are doubtless to continue even when the imprisonment is upraisedtake time for the economy to come back to a standard state and even then social distancing measures will continue for as long because the health shock plays out. Hence demand is unlikely to urge repaired within the next many months, particularly demand for non-essential merchandise and services. There's chance that

the 3 major parts of mixture demand - consumption, investment, and exports are doubtless to remain subdued for a protracted amount of your time. In addition to the unprecedented collapse in demand, there'll even be widespread provide chain disruptions because of the inaccessibility of raw materials, exodus of countless migrant employees from urban areas, swiftness world trade, and cargo and travel connected restrictions obligatory by nearly all affected countries. The availability chains ar unlikely to normalise for a few times to come back. The longer the crisis lasts, the tougher it'll be for companies to remain afloat. This may negatively have an effect on production in the majority domestic industries. This could any have an effect on the investment, employment, financial gain and consumption, destruction the combination rate of growth of the economy. There will even be massive scale cascading effects for the aviation, welcome and business enterprise industries. Over and on top of the domestic issues, the Indian economy will get littered with the worldwide recession that's looming massive on the horizon. This is often absolute to have spill over effects through monetary and trade linkages of Republic of India with the remainder of the globe. Already foreign investors are actuation cash out of the Indian monetary markets and ars fleeing to safe assets as stock markets have crashed. At this early stage it's tough to totally comprehend the extent of the injury that the Indian economy might incur once the epidemic wanes. Some early estimation highlights the severity and length of the economic lag might expertise in future.

The Economic Impact of COVID-19 Can Be Seen on Following Major Sectors of Indian Economy

GDP Growth

The International fund (IMF) slashed India's growth estimate for FY21 to one.9% from 5.8% calculable in Jan, warning that the "worst recession since the nice Depression" can dwarf the economic injury caused by the worldwide monetary crisis a decade back. It conjointly aforesaid that Republic of India and China would be the sole 2 major economies doubtless to register growth, with all others getting. The Covid-19 pandemic can shrink world output by three-dimensional in 2020, IMF aforesaid within the Gregorian calendar month update of its World Economic Outlook (WEO), the primary when the magnitude of the eruption became clear. Similarly, Domestic rating agency CRISIL cut its projections for India's economic process rate to one.8 per cent, from 3.5 per cent it had earlier foretold for 2020-21. Moody's Investors Service, also, slashed Republic of India growth forecast for civil year 2020 to zero.2 per cent,

from 2.5 per cent projected in March. For 2021, the rating agency expects India's growth to rebound to six.2 per cent.

Agriculture and Rural Activities

The agriculture sector is crucial as sizable amount of employees and therefore the entire country's population depends on this sector. With the eruption of Covid-19 the case in rural Republic of India is probably going to worsen considerably. The imprisonment and associated disruptions can have an effect on agricultural activities and therefore the necessary provide chains through many channels: input distribution, harvesting, acquisition, transport hurdles, selling and process. Restrictions of movement and labour deficiency might impede farming and food process (FAO, 2020). March-April is that the season for the sale of the rabi turn out however gathering can get hampered because of the departure of thousands of migrant employees. Shortages of fertilizers, veterinary medicines and different inputs might conjointly have an effect on agricultural production. Closures of restaurants, transport bottlenecks will diminish demand for recent turn out, poultry and fisheries merchandise, moving producers and suppliers. A study by Sudha Narayanan (2020) of statesman Institute of Development analysis indicates that farmers are cursed harvest as APMC (agricultural product market committee) mandis enclosed many states thereby disrupting food provide disruption from the assembly to the consumption centers. The on top of study indicates that the govt. ought to specialize in post-harvest activities, wholesale and retail selling and initiate acquisition operations. Some state governments have already taken initiatives.

Informal sector

Informal sector India includes a terribly high share of informal employment in total employment. The share, which has agricultural employees, has declined marginally from ninety four in 2004-05 to ninety one in 2017-18. Out of a complete of 465 million employees, 422 million were informal employees in 2017-18. Even in non-farm sector (manufacturing and services), the share of informal employees was around eighty four within the same year. The informal employees were already facing issues with low wages and incomes within the pre-Covid-19 amount. Daily wage laborers and different informal employees are the worst hit throughout the imprisonment amount and can still be adversely affected even once the imprisonment is relaxed. With virtually no economic activity significantly in urban areas, the imprisonment has junction rectifier to massive scale losses of jobs and incomes for these

employees. There are concerning forty to fifty million seasonal migrant employees in Republic of India. they assist within the construction of urban buildings, roads, works production and participate in many service activities. There was an outsized scale exodus triggered by the imprisonment. In the formal sector to the extent that companies don't close, staff can still have their jobs and receive their salaries. The informal sector works otherwise. It depends crucially on people's daily demand. With an outsized chunk of the potential customers of the informal sector staying reception right away and retreating from non-essential expenditures, the survival of informal sector units can become questionable with each passing day, particularly because the health crisis and therefore the associated imprisonment drags on. Several companies within the informal sector are forced to stop working

COVID-19 Economic Response Task Force

- COVID-19 Economic Response Task Force The formation of the COVID-19 Economic Response Task Force was declared by Prime Minister Narendra Modi on nineteen March 2020 throughout his live address to the state. The task force is junction rectifier by the minister of finance, Nirmala Sitharaman.
- On twenty one March the Uttar Pradesh government set to provide a direct cash transfer of ₹1,000 to all daily wage laborers in the state and the following day geographical region proclaimed proclaimed, 000 every for all registered construction staff in state.
- On twenty three March it absolutely was proclaimed that Haryana labourers, street vendors associate degreed jinrikisha pullers are provided a help of ₹1,000 per week directly deposited into their bank accounts. Below poverty level families are provided rations (including rice, wheat, mustard oil, and sugar) freed from value for the month of April.
- On twenty four March, in his address to the state, the Prime Minister proclaimed a ₹15,000 large integer fund for the tending sector.
- On twenty four March, the government minister created variety of announcements associated with the economy like extending last dates for filing GST returns and taxation returns. The due dates for the Sabka Vishwas (Legacy Dispute Resolution) theme 2019, customs clearances and for compliance matters below the Customs Act and associated laws have been extended to Gregorian calendar month 2020.

- On twenty five March the Modi government proclaimed the world's largest food security theme for eighty large integers (800,000,000 people) across the country. Cupboard Minister PrakashJavadekar created the announcement in a very group discussion that the ration would be seven kilogram monthly (which includes wheat at a value a value per kilogram and rice at ₹3 per kilogram.)
- On twenty five March the state government illegal the manufacture and sale of pan masala, stating within the order that "Spitting pan masala will facilitate in spreading Covid-19". Following this, alternative states like Andhra Pradesh, Rajasthan and Gujarat additionally illegal ejection publically places.
- On twenty six March the government minister proclaimed variety of economic relief measures for the poor. Rupees 170,000 large integer can fund the PradhanMantriGaribKalyanYojana (PMGKY) which can give each money transfer and food security; with the aim that nobody goes hungry amidst the internment. The PMGKY contains the subsequent components

The PMGKY contains the following components

- Free further five kilogram wheat or rice per person for three months;
- 1 kilogram free pulses per family for three months;
- Free LPG for Ujjwala beneficiaries for three months;
- Rs.2000 to eighty seven million farmers below PM KisanYojana in ten days;
- Increase in MGNREGA wages to Rs.202 from Rs.182;
- Rs.500 per month to two hundred million feminine Gregorian calendar month Dhan account holders for next three months;
- Ex-gratia of Rs.1000 to poor senior voters, widows and disabled;
- Rs.20 hundred thousand collateral-free loans to ladies assistance groups;
- Govt. to contribute EPF to firms with but one hundred workers;
- Non-refundable advances of seventy fifth or three months wages from PF account;
- States to use Rs.31 large integer from construction staff welfare fund;
- States to use district mineral fund for medical activities.

More than 33crore poor people have been directly given financial assistance of Rs. 31,235crore (as on 22nd April, 2020) under the PradhanMantriGaribKalyan Package (PMGKP)

- On twenty six March Asian nation participated within the virtual 'Extraordinary G20 Leaders' Summit'. The G20 nations set to inject over \$5 trillion into the worldwide economy to counteract the pandemic's impacts. They united to figure along, to strengthen the planet Health Organisation, develop aimmunogen and build it out there. They set to share timely and clear info, materials for analysis and development and knowledge. Besides increasing producing capability for medical provides, they united to make sure swish flows of crucial provides.
- On twenty seven March the bank of Asian nation (RBI) Governor Shaktikanta Das created variety of announcements together with EMIs being placed on hold for 3 months and reducing repo rates. Alternative measures introduced can build out there a complete out there, 000 large integers to the country's national economy. Urban center government proclaimed that from the twenty eighth they'll be providing free food to four hundred, 000 each day. Over five hundred hunger relief centres are set by the urban center government.
- On twenty seven March the Rajasthan government has set to deduct the salaries of its officers and workers from one to 5 days.
- On twenty eight March the Prime Minister launched a replacement fund referred to as PM CARES fund for combating such things.
- On 30 March it was announced that the UP government would transfer □611 large integer (US\$86 million) to twenty seven.15 hundred thousand staff below MNREGA theme.
- On one April the run batted in proclaimed additional measures to upset the economic fallout of COVID- 19. WMA and short liquidity has been augmented to produce relief to state governments; exporters have additionally been granted some relief within the variety of relaxed return limits.
- On two April the planet Bank approved \$1 bn emergency finance for Asian nation to tackle coronavirus tagged 'India COVID-19 Emergency Response and Health Systems readiness Project'.

- On three April the central governments free free, 287 large integer to completely different states to assist combat coronavirus. The Ministry of Home Affairs approved ₹11,092 large integer for states as relief below the State Disaster Risk Management Fund.
- On half dozen April a half-hour cut for one year was proclaimed for the President, vice chairman, Prime Minister, Governors, Members of Parliament and Ministers. it absolutely was additionally set to suspend the MPLADS for 2 years and transfer the cash, about ₹7,900 crore , into the consolidated fund of Asian nation.
- On eight April the Department of Expenditure, Finance Ministry, has allowed states web market borrowings of ₹320,481 large integer between April to Gregorian calendar month. ₹3,000 large integer of funds below the PM GaribKalyanYojana are given to over twenty million staff engaged in construction work by the assorted states and UTs. to produce relief to tax payers amid the covid-19 crisis, the govt can unleash unleash,000 crore .
- On ten April the Asian Development Bank assured Asian nation of ₹15,800 large integer help within the covid-19 natural event fight.

Economy that was slowing even before the corona virus outbreak. The measures announced so far

For Banks

Cheaper Cash

A number of steps declared this year aim to encourage banks to lend.

- Banks ought not to put aside money reserves for loans given to little businesses between Jan. thirty one to July thirty one, or for credit to assist customers obtain a automotive or home (announced Gregorian calendar month.
- Policy loaning rate -- the repurchase rate -- cut by seventy five basis points in an exceedingly single move this year. However, the effective deposit rate has been slashed by one hundred fifteen basis points to discourage lenders from enjoying safe and parking the money with the tally (March twenty seven and Apr 17)
- Cash Reserve magnitude relation reduced to three from four-dimensional (March 27)

- Liquidity Coverage magnitude relation lowered to eightieth from 100 percent (will be remodeled to ninetieth by Gregorian calendar month. one and 100 percent by Apr one, 2021)

Loan Freeze

Reserve Bank of Asian country Governor took steps on stopping of loan repayments amid Associate in Nursing unprecedented internment

- All lenders will freeze repayments for 3 months on term loans outstanding March one
Lenders allowed to suspend interest payments on capital facilities for 3 months; accumulated interest are often paid later and therefore the loans won't be in default
- The steps augment previous measures which permit a happening restructuring of loans to little businesses that were in default as of January. 1
- Loans to business property comes that ar delayed for reasons on the far side the management of the developer ar allowed to be treated as commonplace for one more year

Regulatory Deferrals

Implementation of Stricter Laws are Delayed

- Rules requiring banks to fund their activities through stable sources has been delayed to Gregorian calendar month. one from Apr one
- Completion of Capital Conservation Buffer pushed to Sept. thirty from March thirty one
- Lenders allowed a further ninety days to achieve a resolution arrange on massive accounts in default (April 17) **SPECIAL WINDOWS:** These embrace support for company borrowers similarly as rural trade
- **TLTRO** (Targeted longer-term refinancing operations)1.0 -- Rs one hundred thousand large integer of targeted long run funds from the financial institution to banks for investment solely in company bonds, aimed toward easing money crunch at companies (on Apr fifteen, tally declared new rule capping the exposure of any bank to one entity at 100 percent of TLTRO funds invested)
- **TLTRO 2.0** -- initial Rs fifty,000crore , with a minimum of [*fr1] attending to lower rated companies (April 17)

- Special finance to umbrella organizations -- Rs fifty,000 large integer to travel to pan-India financiers like Sidbi, Nabard, NHB that affordably fund the agricultural sector and agriculture.
- **HIGHER PROVISIONS:** Banks ordered to keep up higher provision of 100 percent on all frozen loans meet the January-March and April-June quarters, which may be adjusted later against actual slippages (April 17)
- **DIVIDENDS HALTED:** Banks can't pay dividends for the year finished March thirty one to conserve capital. call are reviews on the idea of their monetary position on Sept. 30 Sovereign Bonds and Rupee
- **MORE MONEY:** The tally has been injecting further liquidity within the industry to stay down bond yields
- At its Gregorian calendar month policy review, the tally same it'll give one trillion rupees of one- and three-year money at the policy rate via long-run repo operations to assist financial transmission (Feb. 6)
- The tally ramped up these measures in March and Apr
- Two variable rate repo operations of five hundred billion rupees to fine-tune liquidity at the twelvemonth finish
- Enhanced a short lived liquidity faucet for primary bond underwriters to Rs ten,000 large integer from Rs a pair of,800 crore
- Rs one hundred thousand large integer of LTROs
- Open market purchase of govt bonds value a hundred billion rupees March 20; another total Rs thirty,000 large integer of OMO purchases March twenty four and March twenty six
- 1 trillion rupees via 16-day variable rate repos
- **INVITING FOREIGNERS:** Asian country opened a good swath of its sovereign bond market to overseas investors, taking its biggest step nevertheless to secure access to world indexes because the government embarks on a record borrowing arrange
- **LIMIT BORROWING:** Asian country declared a commercial enterprise first-half borrowing range that's not up to what traders expected, because it seeks to examine any rise in yields amid a world risk aversion that's sparked outflows from rising

markets MORE DOLLARS: tally pledged to inject greenbacks through dollar-rupee swaps

- 2 \$2 billion swap lines every for March sixteen and March twenty three provided \$2.7 billion SHORTER commercialism HOURS: commercialism in sovereign debt and therefore the rupee are command from ten a.m. to 2 p.m. city time beginning Apr seven through Apr thirty. These markets ordinarily worked from nine a.m. to 5 p.m.
- For Capital Markets: — Allows firms further forty five days for declaring their quarterly and annual results; extends the date for submission of company governance report by a month; company boards exempted from provision of most time gap between 2 conferences (March 19)
- Trading margin in stocks raised, market-wide position reduced to ease volatility in stocks (March 20)

Conclusion

Covid-19 has expose Associate in Nursing unprecedented challenge for Asian country. Given the massive size of the population, the precarious scenario of the economy, particularly of the monetary sector within the pre- Covid-19 amount, and therefore the economy's dependence on informal labour, lockdowns and different social distancing measures would be vastly unquiet. The central and state governments have recognized the challenge and have responded however this response ought to be simply the start. Policies manufacturers ought to be ready to rescale the response because the events unfold thus on minimise the impact of the shock on each the formal and informal sectors and pave the means for a formed recovery. At a similar time they have to make sure that the responses stay enshrined in an exceedingly rules-based framework and limit the exercise of discretion so as to avoid long-run injury to the economy.

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2. Pandemic Literature: Ancient to Present

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Abstract

Pandemic is not new word for us. If we go in the depth of its history, it is found somany years ago. In 541 to 542 it is known as 'Plague of Justinian' 'since then there is a long list of pandemics as - The Black of death 1346 -1356,sixth Cholera pandemic 1899 to 1923 ,Spanish flu (h1n 1) 1918 to 1920 ,Asian flue(H2 N2) 1957 to 1958 ,Hong Kong flu 1968 to 1969, Swine Flu (h1n 1) 2009 to 2010 and covid-19, 2020 to present day . Covid-19 has changed every situation and challenges to human beings physically, socially, psychologically, ideologically and of course for humanity.

Lockdown was such a situation that our sweet homes converted for us as the walls of Prison. In every field, we can see the impact of lockdown in covid-19 period. How can literature be escaped? Really lockdown has provided a new platform for literature with the birth of new genre-Lockdown literature. The pens of authors get new potential creativity in covid-19 and post covid-19 situation.

Keywords - Pandemics, covid-19, literature, lockdown.

From ancient to present time, literature provides a step by step ladder for history of pandemics.Go back for the pages of history; all are full of so many crises that caused untoldsufferings. For instance- in 'Plague of Justinian' during the years 541 - 542{CE} Procopius of Caesarea, a prominent late antique Byzantivescholar from Palaestina Prima, the author of 'The history of the wars' wrote about plague.TheBlack death, 1346 -1350 in the mid of 14thcentury, that wiped out more than one third of Europe's population.Chaucer gave it in his work through contemporary realism.In 1899 – 1923, there was a major outbreak of Cholera, beginning in India, known as the Sixth Cholera Pandemic. Egypt, The Arabian Peninsula, Persia, India and the Philippines were the hardest during this time. Thomas Mann's novella 'Death in Venice' presented the disease as emblematic of the final bestial degradation of the sexually transgressive authorGustavvon Asehenbae, the Spanish flu, in 1918 -1920 was popular for its mass deaths. T. S. Eliot makes a possible reference to the Spanish flu in his poem 'Sweeney

among the Nightingale'. Virginia Woolf wrote an essay on flu 'On Being Ill', in this essay she describes the mental stress of disease. And in others who wrote about pandemic in their works are- 'D.H. Lawrence's The Fox, F. Scott Fitzgerald's This Side of the Paradise (1920), Michael Arlen's 'The Green Hat', Thomas Wolfe's 'A Story of the Burial', John O'Hara's short story 'The Doctor's Son'. 1957 - 1958 were the years of loosing of about 2 million people affected by Asian Influenza. The virus spread to Hong Kong then to Singapore, Taiwan and Japan. The period from 1957 - 1968 is known as the pandemic era of Hong Kong flu. It is known as the first virus to exhibit an accelerated spread due to extensive air travel. It is again the cause of 5 lakh - 2 million deaths worldwide. The time between the years of 2009 - 2010 The pH₁N₁/09 virus is known as Swine Flu, Mexican flu, new flu and A (H₁N₁), emerged from Mexico in 2009. W.H.O. declared it Global Influenza Pandemic. The pandemic also caused societal disruption and substantial economic burden. 'The Eyes of Darkness and Atwood's the year of the flood (2009) are the popular literary name that is based on pandemic outbreaks.

2020 to present is known as covid-19 pandemic era. During the past pandemic experiences, we have not learnt to tackle the pandemic properly. Present pandemic is the cause of so many lives lost, job snatched, economic falldown. The last year (2020) was very panic for everyone- teachers, publishers, book sellers, Businessman, vendors or even for writers also. On the other hand covid-19 shuts the doors of positivity in other fields, at the same time it opens the gate of new thinking for authors. Because literature helps to show the reality of society, it connects to one person to other, one culture to other and one place to another. It breaks the barriers, it connects us across different historical periods. It motivates and encourages us with the fact that we are not only ones who are facing this was situation but others also.

Benefits of the pandemic is that it has encouraged people to look within and become writers. There are so many first time writers and have been established their self publishing companies. In fact literature becomes the present. English literature refers to the study of texts from Around the World especially in the Corona pandemic. In this time; science and literature have closely interwoven. They have created significant literary works in each and every field of literature. As

Indeed, literature is a reaction of social events. It is often times of real crisis that writers recollect and the memorialies communal and individual struggles. Covid-19 has directly impacted the private lives and working situations of every working man. With a new window of

writing, this Era has given a new genre of literature 'pandemic literature' by both foreign and Indian writers.

The thematic thrust of post covid-19 are- fear, threat, darkness, death, freedom, peace and survival for life. The characters for the pandemic writing have been changed. They are now the characters - doctors, nurses and paramedical staff. They are very inspiring and have an inspirational position in the pandemic literature.

We know that there are so many popular genres of English literature commonly known as poetry, drama, fiction, short stories and essays.

Poetry

Poetry is not a new word. It can provide aesthetic pleasure. The Corona period has provided such a platform by social media that we can see a new version of the writers who publish their poems on social media. There are a number of poems, based on the theme of Corona - isolation and loneliness.

- **Irish priest Brother Richard Hendrick's** poem 'Lockdown' tells us about those birds that have again started to sing and of skies that has turned blue again and this is due to the Corona period.
- **Aditya Jadhav** has composed his three poems-A Song, A Ballad and A Prayer, on the three different aspects of the post covid-19. They are different in their themes - hopes, healthcare for professionals and impatient prayer to the universe.
- **Jeeina Marychocko** has composed a poem on covid-19 'Great Isolation' it awakes us about the thing of life
- **Kristin Flyntz** says in her poem 'An Imagined Letter from covid-19 to Human' about a look at our priorities.

Together in a Suddenstrangeness: America's poets respond to the pandemic by Alice Quinn is a book of American voices about their shelter, collective fear, grief and hope.

This pandemic has not only opened the pens for the English writers but other languages also.

Fiction

Now a days, fiction is very popular among the people of literature. Fiction presents a white picture of our society. The fiction writers have described about the pandemic situations

there are so many writers who wrote very different novels specially based on the theme of Corona.

- **Yash Tiwari**, who wrote pandemic 2020: Rife of the Virus, is a writer of young age fiction .The theme of his fiction is implied by the everyday saddening stories of common human beings it also depicts the picture of real world her- the medical workers and the helpness of the poor.It unfolded the journey of covid-19 duration.The perspective of the novel is to highlight something general masses.
- **Dr. Mahesh Prasad Chaurasia** is additional medical superintendent of DDU Hospital. He was a part of the Core Team that set up the city's first Quarantine Centre Isolation wards and testing facilities in the initial months of pandemic. He starts his journey as an author with a non fictional work.He wrote a book on Delhi fight against the coronavirus disease pandemic. 'Just switch off Corona' is the book of Chaurasia that shows how the doctors and the administration fought the pandemic in its initial months.
- **Dr. Kumar Shyam** by profession who is a doctor, has published recently a novel 'The Pandemic Plot'. The story of the Novel moves from Wuhan in China to Italy .It depicts a true picture of an international medical team comprising scientists from many countries including Indi who go on mission to search the real root of covid-19.
- **Kwalpreet Kaur**, A 26 year old teacher ,has written 'Love in the time of Corona Virus' and its sequel 'The Dark 20 days'. The writer focuses on the theme of two youngsters, who battled not just caste and but also covid-19 in a hospital in Italy.
- **Kailash satyarthi** discusses in his book how the covid-19 has impacted the common people and he also suggests some simple solutions. 'Covid-19: crisis of Civilization and Solutions' was launched online on December 17, 2020. This book is in Hindi and has a concept of the idea of humanity.

These are not only the Limited writers who have pen down in Corona period but there are a number of Writers who wrote in Corona period ,with the titles such as 'Corona :checkmate', 'Murder in the Time of Corona', 'The Corona wars', 'Corona kiss', 'The Pandemic Plot', 'My Pandemic Experience have been published .

Story

No doubt, story is the most popular among the children. it is the most popular genre of literature. Stories are loved by children too much.It provide a good platform to satisfy their

quires related to simple breakdown, social distancing and safety procedures. The short stories are based on the theme of covid-19 are-

- **‘Caroline Conquers her Corona Fear’s** by Kellie Camelford, krystalvaughan and Erin Dugan, is the story that provides the answers of the questions of young children. Lockdown situation, social distancing and what should children do, are discussed in this story and this story is published online.(2)
- **‘Coronavirus: A book for children** by Elizabeth Jenner, Kate Wilson and Nia Roberts, is a book for the children of 5 to 10 years. It describes an informative awareness about coronavirus and this is also published online.(3)
- **‘Dav the Dog is worried about coronavirus’** by Nurse Dotty is a book for children. It is a book a lot of information, how to face Corona with friendly and without fear. This is also published online.(4)

Essay

‘Intimations: six essays’ by Zadie Smith is also a collection of six essays, in which the writer has described about the Corona period and their impacts on society.

Thus, my pen has focused only a very limited names of fiction, stories, essays and poems but in fact there are a number of authors who may be new in this field, who have succeeded to write on Corona periods situations. They also provide some solutions in their writing, how we can overcome. In-fact in present situation we are overcoming also.

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3. Post COVID-19 Situation in Economics

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Abstract

The Occurrence Of COVID-19 Brought Social Life To A Standstill. The Main Target Is On Assessing The Impact On Affected Sectors, Like Aviation, Tourism, Retail, Capital Markets, Msmes, And Oil. International And Internal Quality Is Restricted, And Therefore The Revenues Generated By Travel And Commercial Enterprise, That Contributes Nine.2% Of The Value, Can Take A Serious Toll On The Value Rate. Aviation Revenues Can Return Down By USD One.56 Billion. The Social Distance And Therefore The Security Measures Have Affected The Connection Among Folks And Their Perception Of Sympathy Toward Others. From This Attitude, Telepsychology And Technological Devices Assume Necessary Roles To Decrease The Negative Effects Of The Pandemic. These Tools Gift Edges That Might Improve Psychological Treatment Of Patients On-Line, Like The Chance To Satisfy From Home Or From The Geographical Point, Saving Cash And Time And Maintaining The Connection Between Therapists And Patients. Rupee Is Ceaselessly Depreciatory. Msmes Can Endure A Severe Money Crunch. The Crisis Witnessed A Horrible Mass Exodus Of Such Floating Population Of Migrants On Foot, Amidst Broad Imprisonment. Their Worries Primarily Were Loss Of Job, Daily Ration, And Absence Of A Social Insurance Internet. India Should Rethink On Her Development Paradigm And Build It Additional Comprehensive. COVID Nineteen Has Conjointly Provided Some Distinctive Opportunities To India. There's A Chance To Participate In World Offer Chains, Multinationals Are Losing Trust In China. To 'Make In India', Some Reforms Are Required, Labour Reforms Being One Amongst Them. Keywords

Keywords-COVID 19, Economic Impact, Value Rate, Sectoral Impact, COVID Relief Measures

Introduction

The Occurrence Of COVID-19 Has Wedged Nations In A Colossal Manner, Particularly The Nationwide Lockdowns That Have Brought Social And Economic Life To A Standstill. A World That Forever Buzzed With Activities Has Fallen Silent And Every One The Resources

Are Amused To Meeting The Never-Experienced- Before Crisis. There's A Multi-Sectoral Impact Of The Virus Because The Economic Activities Of Countries Have Over-Involved. What's Astonishing And Price Noting Is AN Alarum That Was Rung In 2019 By The Planet Health Organization (WHO) Regarding The World's Inability To Fight A World Pandemic. A Pair Of 2019 Joint Report From The World Health Organization And Therefore The IBRD Calculable The Impact Of Such An Epidemic At 2.2 Per Cent To Four.8 Per Cent Of Worldwide Value. That Prediction Looks To Own Return True, As We Have A Tendency To See The Planet Obtaining Engulfed By This Crisis. In Another Report Entitled 'COVID-19 And Therefore The World Of Work: Impact And Policy Responses' By International Labour Organization, It Absolutely Was Explained That The Crisis Has Already Remodeled Into AN Economic And Labour Market Shock, Impacting Not Solely Offer (Production Of Products And Services) However Conjointly Demand (Consumption And Investment). International Financial Fund's (IMF) Chief Aforementioned That, 'World Is Visaged With Extraordinary Uncertainty Regarding The Depth And Length Of This Crisis, And It Absolutely Was The Worst Economic Fallout Since The Nice Depression'. The United Nations Agency Calculable The External Funding Wants For Rising Markets And Developing Economies In Trillions Of Bucks. India Too Is Moaning Underneath The Yoke Of The Pandemic And As Per News Reports In Economic Times Printed On Twenty Three March 2020, The Economists Are Pegging The Price Of The COVID-19 Imprisonment At US\$120 Billion Or Four Per Cent Of The Value (The Economic Expert, 2020). This COVID-19 Pandemic Affected The Producing And Therefore The Services Sector—Hospitality, Tours And Travels, Healthcare, Retail, Banks, Hotels, Assets, Education, Health, IT, Recreation, Media Et Al.. The Economic Stress Has Started And Can Grow Apace. Whereas Imprisonment And Social Distancing End In Productivity Loss On The One Hand, They Cause A Pointy Decline In Demand For Product And Services By The Customers Within The Market On The Opposite, Therefore Resulting In A Collapse In Economic Activity. However, Imprisonment And Social Distancing Are The Sole Efficient Tools Offered To Stop The Unfold Of COVID-19. Governmentsar Learning By Doing, Because It Was Within The Case Of Success Of Containment Strategy In Bhilwara District, Rajasthan, India, The Economic Risks Of Closing The Economy Stay However. Similarly, Flattering The Caseload Curve Is Essential For Economy At Giant, However It Comes With AN Economic Price. Material And Strategies Research Studies Done Earlier To Assess The Economic Impact Of Epidemics Are Supported Simulation Models. A Study Done By Martin Karlsson (2014) To Assess The Impact Of 1918 Spanish Influenza Epidemic On Swedish Economy Is Predicated On The Classical

Growth Model; AN Extension Of The Quality Difference-In- Variations (DID) Calculator Was Used To Use The Differing Influenza Mortality Rates Across Swedish Regions. The Policy Temporary Issued By The Asian Development Bank To Assess The Economic Impact Of Vertebrate Influenza Pandemic On Asian Economies Has Been Done Through Political Economy Simulations Supported Oxford Economic Prediction (OEF) World Model, Which Contains Each The Demand And Provide Sides And Adjusts To A Replacement Equilibrium Once A Shock (Bloom Et Al., 2005). The Empirical Estimates Of The Economic Effects Of The Severe Acute Metabolic Process Syndrome (SARS) Epidemic Ar Supported A World Model Referred To As The G-Cubed (Asia-Pacific) Model That Was Projected By Lee And Mckibbin (2004). Economic Effects Of Epidemics Ar Measured Through Economic Prices Derivation From Disease-Associated Medical Prices Or Forgone Incomes As A Result Of The Disease-Related Morbidity And Mortality. In An Exceedingly World Economy, The Economic Consequences Of A Virulent Disease In One Country Ar Transferred To Alternative Countries As A Result Of The Integrated Offer Chains And Capital Markets.

Material and Methods

Material And Strategies Research Studies Done Earlier To Assess The Economic Impact Of Epidemics Are Supported Simulation Models. A Study Done By Martin Karlsson (2014) To Assess The Impact Of 1918 Spanish Influenza Epidemic On Swedish Economy Is Predicated On The Classical Growth Model; AN Extension Of The Quality Difference-In- Variations (DID) Calculator Was Used To Use The Differing Influenza Mortality Rates Across Swedish Regions. The Policy Temporary Issued By The Asian Development Bank To Assess The Economic Impact Of Vertebrate Influenza Pandemic On Asian Economies Has Been Done Through Political Economy Simulations Supported Oxford Economic Prediction (OEF) World Model, Which Contains Each The Demand And Provide Sides And Adjusts To A Replacement Equilibrium Once A Shock (Bloom Et Al., 2005). The Empirical Estimates Of The Economic Effects Of The Severe Acute Metabolic Process Syndrome (SARS) Epidemic Are Supported A World Model Referred To As The G-Cubed (Asia-Pacific) Model That Was Projected By Lee And Mckibbin (2004). Economic Effects Of Epidemics Are Measured Through Economic Prices Derivation From Disease-Associated Medical Prices Or Forgone Incomes As A Results Of The Disease-Related Morbidity And Mortality. In An Exceedingly World Economy, The Economic Consequences Of A Virulent Disease In One Country Are Transferred To Goingontostudytheimpactofthisinfectiononthehumanbodyand To Find A Possible Cure For The Infection. There Are Many Variables In The Epidemiological Calculations Done For This

Disease Which Are Based On Assumptions Such As The Cause Of Infection, The Infection Rate And The Ratio Of Asymptomatic Cases To Symptomatic Cases. In The Future, Research Project Can Unravel The Mysteries Of This Illness And Also The Illness Unfold. Economic Projections Or Simulations Square Measure Closely Joined To Medicine Statement Of The Illness Pattern. We Have A Tendency To Set To Not Use Simulation Models Owing To The Uncertainties Associated With The Illness. During This Study, The Main Focus Is On Assessing The Damages Caused By COVID-19 Within The Affected Sectors, Like Aviation, Business Enterprise And Also The Retail, The General Productivity Loss And Also The Socio-Economic Impact Of Labour Hours Lost With Associate In Nursing Analysis Of Biological Process Policy And Programme Implications.

Sectoral Implications of COVID-19 Pandemic in India

The Business Enterprise Business Is That The Worst Affected Thanks To The COVID Crisis, Internationally. The Planet Business Enterprise Organization (UNWTO) (2020) Estimations Depict A Fall Of 20–30 Per Cent In International Traveller Arrivals. These Figures Too Square Measure Supported Gift Circumstances And Square Measure Possible To Extend Or Decrease In Future. A Lot Of Folks Related To Business Square Measure Possible To Lose Their Jobs. In India, The Travel And Business Enterprise Business Is Flourishing And Is Causative Sizable To The Economy. The FICCI-Yes Bank Report Titled ‘India Arriving Tourism: Unlocking The Opportunities’ Delineate Bharat As A Business Enterprise Powerhouse And Also The Largest Market In South Asia. Business Enterprise In Bharat Accounted For Nine.2 Per Cent Of Value And Had Generated US\$247.3 Billion In 2018, With The Creation Of Twenty Six.7 Million Jobs. Currently, It's The Eighth Largest Country In Terms Of Contribution To Value (Jaganmohan, 2020). In Step With The Report, By 2029, The World Is Predicted To Supply Employment To Just About Fifty Three Million Folks. Foreign Traveller Arrivals (Ftas) Crossed Ten Million In 2017. However, The Coronavirus Pandemic Has Restricted International Quality And Also The Revenues Generated By This Sector Can Take A Significant Toll On The Value Rate. It Should Bring A Downfall Of Zero.45 Per Cent Within The Rate Of Value. The Aviation Sector In Bharat Presently Contributes US\$72 Billion To India's Value. Foreign Traveller Arrival Has Been Down Within The Half-Moon. The Imprisonment Can Have A Big Impact On Arrivals Within The Second Quarter. If We Have A Tendency To Estimate A Conservative Twenty Five Per Cent Decline Within The Contribution Of The Aviation Sector, It'll Quantity To Eighteen Billion. Railways Contributed US\$27.13 Billion In 2019 To Value. A 21-Day Imprisonment Amount Can Bring Down The Revenue By US\$1.56 Billion. The Indian Retail

Business Was Price US\$790 Billion In FY 2019. It Accounts For Over Ten Per Cent Of The Country's Value And Around Eight Per Cent Of Employment. Within The Past Few Years, On-Line Retail Has Seen A Awfully Rising And Also The Market Projections Had Indicated A Thirty Per Cent Growth In On-Line Retail In 2020 (National Investment Promotion And Facilitation Agency, 2020). A Month-Long Closedown For Retail Can Have An Effect On The Quarter Two Revenues. Within The Retail Sector, The Suppressed Demand Encompasses A Tendency To Revive In No Time And This May Alter The World To Recover The Losses Once The Imprisonment Is Upraised. On-Line Retail Was Operational In Some Elements Of The Country Throughout The Imprisonment Amount And This May Facilitate In Compensative A Number Of The Losses For The Business.

Impact on GDP Growth Rate

Impact On Value Rate While The COVID-19 Pandemic Is Consistently Growing And Showing Very Little Signs Of Containment As Of Fifteen April 2020, Its Adverse Impact On Economic Process Of The Country Can Most Likely Be Terribly Serious. The International Organization Warned That The Coronavirus Pandemic Is Predicted To Possess A Big Adverse Impact On International Economy, And Most Importantly, Value Growth Of Bharat For This Economy Is Projected To Say No To 4.8 Per Cent (United Nation 2020). Similarly, The International Organization 'Economic And Social Survey Of Asia And Also The Pacific (ESCAP) 2020 According That COVID-19 Would Have In Depth Socio-Economic Consequences Within The Region With Inundate Activities Across Borders Within The Areas Of Business Enterprise, Trade And Money Linkages (United Nations, 2020).

Impact of COVID-19 Pandemic on Migratory Labour

The International Labour Organization In Its Report Describes The Coronavirus Pandemic As 'The Worst International Crisis Since War II'. Regarding Four Hundred Million Folks (76.2% Of The Whole Workforce) Operating Within The Informal Economy In Bharat Square Measure At A Risk Of Falling Deeper Into Poorness Thanks To Harmful Consequences Of The Virus. As Half The Planet Is In Imprisonment, It's Attending To Be A Loss Of 195 Million Full-Time Jobs Or 6.6 Per Cent Of Operating Hours Globally. Several Square Measure In Low-Paid, Low-Skilled Jobs Wherever Abrupt Loss Of Financial Gain Is Harmful (International Labour Organization, 2020). Seasonal Migration Of Labour For Work May Be A Pervasive Reality In Rural Bharat. A Migration Of A Lot Of Folks Happens From Rural Areas To Industries, Urban Markets And Farms. Major Migration Corridors In Bharat Square Measure From UP And Bihar, To Punjab, Haryana, Geographical Region And Gujarat. Newer Corridors

From Odisha, State And North East To Karnataka And Andhra Pradesh, From Rajasthan To Gujarat, From MP To Gujarat And Geographical Region And From Province To Kerala Also Are Being Created. These Migrant Employees Square Measure Utilized Within The Construction Sector (40 Million), Domestic Work (20 Million), Textile (11 Million), Brick Oven Work (10 Million), Transportation, Mining And Agriculture (IIPS, 2001). Throughout Imprisonment, 92.5 Per Cent Of Labourers Have Lost One To Four Weeks Of Labor. A Survey Done By Jan Sahas, Of 3196 Migrant Employees Across Northern And Central Bharat, Between Twenty Seven March And Twenty Nine March, Reveals That Eighty Per Cent Of Migrant Employees Feared That They'll Run Out Of Food Before Imprisonment Ends On Fourteen April And Cannot Get Their Job Back Thenceforth.

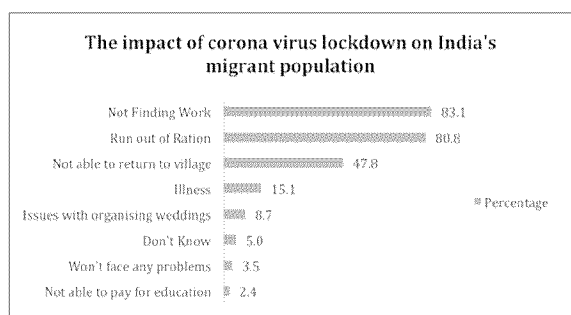


Figure 1. Impact of COVID-19 on Migrant Population

Implications on Capital Markets, Global Oil Market and its Impact on India

The Survey Unconcealed That Fifty Five Per Cent Of Migrant Employees Get A Daily Wage Between `200 And `400, And Thirty-Nine Per Cent Of The Employees Get Onto Between `400 And `600, That Is Below Wage Rate. Solely Four Per Cent Of The Employees Get `600 And On Top Of, That Is On The Brink Of Wage Rate. They Add Exploitive Conditions, Square Measure Typically Underneath Debt And Have Very Little Savings Of Their Own. About 49.2 Per Cent Of Those Employees Within The Survey Same That They Failed To Have Ration And Thirty-Nine.4 Per Cent Same That That They Had Ration Which Might Last Regarding Two Weeks. Figure1. Impact Of COVID-19 On Migrant Population Implications On Capital Markets, International Oil Market And Its Impact On Bharat Coronavirus Fears Have Sent Shock Waves Across International Money Markets. National Capital Markets Square Measure Envisaging A Funds Flow To Western Capital Markets, Due To Rate Cuts And Fall Within The Stock Markets The Planet Over. As Per The NSDL Information, Foreign Portfolio Investors (Fpis) Have Withdrawn Immense Amounts From India—`247.76 Billion From Equity Markets And `140.50 Billion From Debt Markets During A Short Span Of Thirteen Days, That Is, From One To Thirteen Of March 2020. There'll Be Heaps Of Volatility Within The Capital Markets Within

The Next Half Dozen Months, Due To Fast Flow Of Capital From One Market To A Different Within The World. A Historic Call In Demand For Oil Has Born The Petroleum Costs To Associate In Nursing Eighteen Year Low Of US\$22 Per Barrel, In March From US\$65 Per Barrel In January. Some Estimates Have Pegged A Saving Of US\$7–8 Billion For Bharat For Each US\$5 A Barrel Fall In Petroleum Costs. A Fall In Petroleum Costs Could Cut India's Accounting Deficit, That Was One.55 Of Value In 2019–2020 (Economic Survey, 2020). However The Capital Outflows From Bharat Could Exceed The Potential Saving Within The Accounting Deficit. Agency To USD Average Rate Of Exchange Has Been `70.4 Per U.S. Greenback, However It's Already Quoting Close To The Psychological Barrier Of `75 Per U.S. Greenback. If Capital Outflows From Bharat Continue, Rupee (INR) Could Depreciate More Within The Coming Back Days.

Conclusion

The Spiralling And Pervasive COVID-19 Pandemic Has Distorted The World's Thriving Economy In Unpredictable And Ambiguous Terms. However It Considerably Indicated That The Present Worsening Looks Primarily Totally Different From Recessions Of The Past That Had Jolted The Country's Economic Order. Whereas The Nations, Conglomerates, Firms And Multinationals Still Perceive The Magnitude Of The Pandemic, It's Beyond Question The Necessity Of The Hour To Arrange For A Future That's Property, Structurally A Lot Of Viable For Living And Dealing. While The Unprecedented Scenario Has Caused A Good Injury To The Economy, Particularly In Periods Of Imprisonment, The State Can Need To Work Its Means Through It, By Introduction Of Business Measures. Because The National Government Envisions, Protection Of Each Lives And Living Is Needed. The Economic Activity Should Begin Step By Step Once Screening Of The Labour Force. Strict Preventive Measures Ought To Be Enforced By The Business So As To Safeguard The Health Of The Employees. Whereas Policy And Reforms Ought To Be Dealt Out By The Govt. Adequately To Salvage The Economy, The Business, Civil Societies Associate In Nursingd Communities Have An Equal Role In Maintaining The Equilibrium. The Norms Of Social Distancing, Avoiding Or Cancelling Gatherings, And Use Of Masks And Sanitisers Ought To Be The Means Of Life Until We Have A Tendency To Square Measure Able To Eradicate The Virus. Throughout Now, The Economy Is Close With Social Behaviour Of Human Race, That The Responsibility Of Delivery Back Economic Action Isn't Of Presidency Alone. The Risk Of A Worldwide Recession Thanks To COVID-19 In 2020 And 2021 Would Be Extraordinarily High, Because It Has Been Discovered Globally That The Closedown Of All Economic Activities—Production, Consumption And

Trade—To Management The Unfold Of COVID-19 Is Close. The Character Of Closedown Is Exclusive Just In Case Of COVID-19 Thanks To A Offer Shock, A Requirement Shock And A Market Shock. The Recovery In Economy Depends On The Timings And Magnitude Of Presidency Support In Addition Because The Level Of Company Debt And The Way The Businesses And Markets Address Lower Demand. Government Help To Those Most In Want (Largely Well-Grooved Of Unorganised Sector, Migrants And Marginalised Communities) May Be A Important Live To Save Lots Of Several Lives. However, Each Crisis Brings A Few Distinctive Chances To Rethink On The Trail Undertaken For The Event Of A Person's Being, Community And Society. The COVID-19 Pandemic Encompasses A Clear Message For The Indian Economy To Adopt Property Biological Process Models, That Square Measure Supported Independence, Comprehensive Frameworks And Square Measure Setting Friendly.

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4. Survival of Happiness and Organization Culture under “Covid-19 Crisis”

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Abstract

Covid-19 spread badly all over the world and no sector has escaped this. It spoiled the life of every individual personally and professionally whereas it distracts the happiness of employees as well as changed the organization culture. There is no doubt that happier employees are more productive. Industry Organization culture, try to improve their employees' productivity and profitability by adding happiness. A happy organization culture increases productivity because employees are more focused, creative and entrepreneurial. For the improvement of financial performance, organization must introduce happiness. Unhappy employees and lack of happiness culture leads towards work stress, moral stress and burnout, which lead to feelings of hopelessness. Happiness and happy employees take better decision compare to unhappy employees. Every organization focus on their employee's performance and the main factor that provide positive result is happiness. Happiness is the most powerful tool to increase the productivity and efficiency of the employees. The company higher authorities become more active for the acceptance of the challenges to remove the impact of pandemic on employees and organization.

Introduction

Happiness is an important factor of any organization without it employees cannot give their 100% to the organization which is proven by many studies (Wesarat, et al., 2015) but now the days corona virus spread the threat of job loss and productivity loss. Scottish savant found the idea of happiness and Bentham expressing that the essential quality of happiness (Bentham, 1789). Happiness and satisfaction explain how much one feels bad or good in his/her life (Veenhoven, 1991: 2). (Pryce-Jones, 2011) the book, Happiness at work: Maximizing your mental capital for progress, work environment satisfaction was portrayed as "an attitude which permits you to boost execution and accomplish your latent capacity but corona virus enhance their threat between the employees and employer and move the organization workplace into

work from home. Pandemic increase the responsibilities of the higher authorities to maintain the productivity and profitability of organization on the other hand it also create the fear of infection from other, fear of quarantined, work in an unsafe environment, fear of discontinuity of business and the fear of loss of job.

Happiness

Myers and Diener (1995) explain happiness as experience of high-continuous positive effect, low-regular negative effect, and a general life fulfillment. Happiness is believed to be an inclination – physical and mental, by the greater part of the individuals today as they see and expressions like I am glad that you came 'I'm content with my work' and so on to communicate a feeling of happiness and fulfillment. Some researcher said in their study that food, drink, and sex can surely be the reason of one happiness (Tannsjo, 2007). The early assumptions of happiness recommend that since happiness requires significant exertion, order and dedication, numerous individuals are basically capable (McMahon, 2006). The study shows that happiness conduct with the language and culture; it isn't really a result of agony as considered previously, however something that can be accomplished, and even expanded (Conzo, 2017). Happiness has incredible positive value for individuals and social orders. Happiness in type of fun and delights, which is fundamental thing individuals need to accomplish in their lives for happiness (Diener et al., 1999). The term happiness appears to be obscure, unmanageable and non-specialized for logical use. (Seligman, 2012) recommended that the term could be disintegrated into five deductively sensible domains. These are positive feeling charming life, commitment drew throughout everyday life, which means (significant life), achievement and good relationship. These terms are quantifiable, sensible, and can be taken care of exactly. In particular the segments are ability based and can be instructed and educated the wonderful life is the thing that the libertine hypotheses of satisfaction allude to. It comprises in having a great deal of positive feeling about the present, past and future and mastering the abilities to enhance the force and length of these feelings (Seligman, Steen, Park and Peterson, 2005). The Oxford Advanced Learner's Dictionary (1989:p567) characterizes 'happiness' as, "feeling or communicating happiness, satisfaction, fulfillment and so forth" Happiness is a feeling. Happiness isn't just an everyday routine experienced by gathering of snapshots of happiness. Despite what might be expected, happiness an enduring life; it is being infatuated with living. It is your compensation for accomplishing a decent character and individual judicious qualities throughout everyday life, According to Aristotle, "happiness is the importance and motivation behind life, the entire point and end of human life." (Gretchen Rubin: 2009, p.14). Achievement isn't the way to happiness.

Happiness is the way to progress. In the event that you love what you are doing, you will be effective. Happiness is when your opinion, what you say, and what you do are in amicability everybody should be glad, however many are disappointed with their life. The vast majority are even befuddled about what can satisfy them. Individuals need to comprehend approaches to be glad and quiet paying little heed to their outer conditions (Cloninger, 2004). A great many people incline toward satisfaction instead of outward accomplishments, for example, acclaim, riches, or societal position (Diener& Lucas, 2002). Glad individuals are less self-centered, less antagonistic, and less defenseless against illness. They are all the more cherishing, pardoning, trusting, vivacious, unequivocal, imaginative, supportive, and friendly than despondent individuals (Lyubomirsky, Sheldon&Schkade, 2005). Happiness is a positive enthusiastic express that is abstractly characterized by every individual. Positive feeling can help in critical thinking and for good dynamic, and furthermore can assist with building flexibility.

Everybody should be cheerful, however many are disappointed with their life. A great many people are even befuddled about what can fulfill them. Individuals need to comprehend approaches to be upbeat and tranquil paying little mind to their outside condition (Cloninger, 2004). The vast majority lean toward happiness as opposed to outward accomplishments, for example, acclaim, riches, or societal position (Diener& Lucas, 2002). Cheerful individuals are less self-centered, less threatening, and less helpless against illness. They are additionally adoring, excusing, trusting, lively, conclusive, innovative, supportive, and friendly than troubled individuals (Lyubomirsky, Sheldon&Schkade, 2005). Happiness is a positive passionate express that is abstractly characterized by every individual. Positive feeling can help in critical thinking and for good dynamic, and furthermore can assist with building strength.

Happiness has been a loved objective for individuals of any age regardless of their age, culture, sexual orientation and affiliations. Davitz (1970) has characterized satisfaction as charming temperament states. Moreover, (Denmark and Iisager, 1948) have considered it as a powerful change towards better conditions. Generally, happiness is a pleasurable condition portrayed by fulfillment with Life overall. It has been contended that happiness is an experiential marvel that can't be related to specific outside conditions or with a lifestyle. Satisfaction isn't really steady and it might transform one individual or second to someone else or second. Happiness has been accounted for to be valuable to clarify numerous positive life results. Happiness is viewed as significant and imperative to most social orders (Diener, 2000).Happiness is additionally significant in the work environment and exploration on happiness has been acquiring a lot of consideration over the course of the years particularly

inside the setting of work (Fisher, 2010). Rego, Ribeiro, Cunha and Jesuino (2011) have contended that considering satisfaction is significant as it is important to society (Diener, 2000) and it is connected with upgraded execution and improved authoritative working (Fredrickson, 2003). Additionally, satisfaction establishes a crucial segment of a decent life and advancement of society (Diener, 2000). It is likewise helpful for businesses to concentrate on the happiness of their representatives. It has been accounted for that happiness is related with more elevated levels of prosperity of workers, faithfulness, more noteworthy benefit, greater efficiency, and lower paces of turnover (Keyes, and Magyar-Moe, 2003). As per Fisher (2003), a cheerful Worker is a beneficial specialist. Essentially, cheerful people are more dynamic, approach-arranged.

Organization Culture

Culture knows about everybody when we sense it however when we need to pass on it, it is very troublesome. The way of life is characterized with such countless implications as it is characterized from numerous points of view by so many creator and examination. It was utilized to show the first culture of an America and Europe just as themselves (Kotter and Heskett, 1992). Scientist outlines the way of life from numerous points of view. Culture recognize the individual from a similar gathering with the other as it is a shared idea (Geert et al (2010). culture is an assortment of set convictions, qualities and practices routinely which embraced from social human sciences. Though, (Deal and Kennedy, 1982) characterize the way of life as culture follows our own, as what we do, we have it around us. Culture is completely stayed with their individual history and that why it is persistent cycle which association conveys and the principle objective is to discover the real representatives' advantage and imagination toward its association so they can improve their productivity to rival the other. American legacy word reference characterizes the way of life as craftsmanship custom and conviction so they can clarify the impact of association culture on demeanor and happiness. Organization culture relate with the set brain construction of association part alongside the jobs and arrangements and techniques. Societies are a progressing cycle relies upon truth and which has diverse response in various circumstances. Consequently, it is an amazing and developmental cycle that evolving esteems, disposition (Kropp, 2000). It is a cycle which adhered one part to other based on intellectual reasoning" (Geert, et al., 2010) association culture dependent on different standards which are principle supporter of build out the association culture. (Schein, 2004); the four factor standards, Behavior, values, conviction portray the association culture (Kotter, et al., 1992). Association culture spread the qualities which are trailed by the gathering of individuals. (Hofstede, 2010) gives an onion model which center around four components: saints, customs, values, values

represent the deepest appearance images represent the surface and in the middle legends and ceremonies lies in the middle, image is the most outside level while it contains engineering, pictures, words administration model and other target that hold an importance which knows about whom who offer culture. Image is the material holder and can be change if there should be an occurrence of necessities that why it is the top front of an association who holds the entire association same way.

Important of Happiness in an Organization

Satisfaction at work is viewed as another idea that is still inadequately comprehended (Achor, 2010). For quite a while, the attention was on estimating position fulfillment, which has a lot of writing, as opposed to zeroing in on estimating laborers' satisfaction (Diener et al., 1999; Meer and Wielers, 2013). As of now, numerous associations focus on worker turnover and the effect of this on profitability. Turnover as per Gustafson (2002) costs an association around \$3,000 to \$10,000 every hour for every representative. In this way, raising faithfulness and fulfillment is fundamental in lessening quantities of leavers (Guimaraes, 1997; Smith, 2000; Firth et al., 2004). The positive consequences of the most happiness associations around the planet demonstrated that upbeat representative is more gainful, better, and faithful to the work environment and that undeniable degree of happiness useful the two people and association in the short and long haul and makes these associations ready to contend and support (Lyubomirsky et al., 2005). That is the reason it is significant for an association to convey happiness to acquire happiness consequently (Hsieh, 2012). Satisfaction at work characterizes an individual worker's emotions towards his tendency of occupation highlights and entire association also (Fisher, 2010). Happiness at work is a wide develop, which depends on certain attitudinal measurement like worker's commitment during the work, vocation fulfillment and authoritative responsibilities through direct close to home insight, happiness at work sizes is steady, explicit, recover and open so conduct of representative can be anticipated (Fisher, 2010). Satisfaction at work for estimating positive occupation disposition of representatives in the instructive area is wide potential for future examination (Salas-Vallina et al., 2017). Representative's uplifting demeanor towards work learning can conceivable to extend individual and social assets (Fredrickson, 2001). More happiness perspectives will create productive outcomes looking like social help from partners and managers.

Conclusion

Happiness has likewise been connected to better dynamic and improved imagination but covid-19 spoil the whole structure of economy as well as the culture of every organization. In

this way, as opposed to progress being the way to happiness, research shows that satisfaction could indeed be the way to progress. However, it doesn't simply help us work better: satisfaction additionally brings generous advantages for society overall. Having upbeat association culture is critical for the endurance and execution of any association. More happiness representatives work more earnestly, function admirably together in groups and are by and large more beneficial. We have to fight with the covid-19 situation with happiness and healthy work culture so that every employee enjoys their work with more dedication. Looking forward to the happy organization culture Cheerful representatives raise the association's profitability as well as make it a magnet for the best ability out there.

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5. Post Covid-19 Situation in Economics of India

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Abstract

The spate of COVID-19 brought social and economic life to stop. In this study the focus is on evaluation the impact on mostly affected on three sectors, such as primary sector like fishery, agriculture, animal husbandry. Secondary sector such as all industrial sector and third service sector such as Banking, Medical, Education, Tourism. Given the nature of the disease which is highly infectious, the ways to contain the expand include policy actions such as burden of social distancing, self-isolation at home, closing of institutions, and community facilities, limits on mobility and even lockdown of an entire country. Around 200 nations are into lockdown, and all around the businesses are working in shock and that in future financial conditions will fall. In India belongs Pune MIDC, Khopoli MIDC, Mumbai MIDC, Sangli MIDC are slow in the growth of economics. Let us observe how the corona virus is going to collapse businesses and economic conditions. All more than the India is facing the challenge of covid-19. Here we will discuss why Covid -19 will affect the economy, and the whole India has been hit by this pandemic. We all are the witness of this reality and facing this situation. Covid-19 corona virus is a threat for everyone since it comes from Wuhan China. Most of the people died for corona around the world. After the spread of corona virus around the world in each country is a lockdown. Human living costs immediately become high. In this paper we will discuss that due to lockdown what impact will be on the economy of post Covid-19.

Key Words - China, covid-19, Wuhan.

Discussion

According to (Ozili and Thankom, 2020), why has a worldwide collapse contributed to a health problem? How the world economy face with the spread of the corona virus? The solution lies in two approach that decrease economic operations through corona virus. Firstly, the virus spread promoted social separation and contribute to financial markets, like companies and events being shut down. Jamwal (et al, 2020) reported manufacturing units in most of the countries have shut down due to Covid-19 spread and most of the countries are facing from the lack of the

labor due to the panic of Covid-19 spread. The first reported of Covid-19 in India in January, 2020 and Government of India has declared the lockdown in the country to reduce the spread of Covid-19. According to (Barro et al. 2020) that, holding everything else constant, the 2.1 percent death rate during the Spanish Influenza pandemic in 1918-1920 would translate to roughly 150 million deaths worldwide. The authors also find that, on average, the 2.1 percent death rate corresponds to 6 percent decline in GDP and 8 percent fall in private consumption. Rashmi Gujrati (2020), reported that pandemic duration comes that all of worldwide travel has been controlled by government. All over completely 90% destination of tourist places has been closed, the world tourism organization said, due Covid -19 pandemic in the global tourism industry millions of people will lost their jobs.

Conclusion

Covid-19 has posed an incomparable challenge for India. Given the huge of the population, the dangerous situation of the economy, financial sector in the preCovid-19 period, and the economy's belief on informal labor, lockdowns and other social distancing measures would be hugely disruptive. The both governments like (state, central) have accepted the challenge and have responded but this response should be just the beginning. Policy makers require to be prepared to scale up the response as the events unfold so as to decrease the impact of the shock on both the formal and informal sectors. At the same time they must guarantee that the responses remain enshrined in a rules-based framework and limit the work out of discretion in order to avoid long-term damage to the economy.

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6. Post Covid-19 Situation in Education: A Challenges and Opportunities

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Abstract

The covid-19 pandemic forced the country to imposed lockdown and shutting down of educational institution enforcing the students, teacher and parent to switch to online and distance mode of learning. A problem can be an opportunity in disguise, this pandemic when we look through the positive lens it has opportunity that offered us to learn new thing and develop ourselves. Although many countries started reopening educational institution yet there are still protocol to be followed therefore in this paper the author aimed at determining the challenges and opportunities in educational sector. The author also aimed to offer some suggestion for the problems. This paper is analytical in nature. Qualitative approach is employed for this study. This study is based on secondary sources. It has been found that there are many challenges in educational sector to mention few affordability of smart devices, internet connectivity issue, fund for digital learning, computer illiterate and to arrange facilities for discipline that requires laboratory practical. There are opportunities in educational sector like Independent learning by the students, enhancement of digital skills, collaboration between student, teacher and academia globally, access to vast online learning resources and learning through one's own convenience. The author believed that the present study will help the Government, stakeholder and policy maker to gain more insight into the problem in educational sector and also help the student, teacher, parent and stakeholder to view problem as a blessing in disguise.

Keywords: pandemic, education, digital divide, right to education

Introduction

COVID-19 is a disease caused by Severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The first known case of the disease was reported in Wuhan, China in the month of December 2019. It was on March 11, 2020 the world health organization (WHO) declared the novel coronavirus disease (Covid-19) as Global pandemic. Close to 825 million learners have been affected by the Covid-19 pandemic till 12th of January 2021. The UNESCO report revealed

that over 91 percent of the world students are a victim of this covid-19 pandemic. As per the report of UNESCO 157 crore students in 191 countries are affected by the Covid-19 pandemic. Conferencing apps like Google meet, WebEx, zoom meeting and such other were used during the time of crisis to reduce the loss of the students. E- learning apps like Edmodo, Socrative learning, Google classroom, Prezi and some channel in YouTube, Byju's, Udemy, social media apps like WhatsApp were used to help the student in learning and communicate with the parent.

Despite of making policy and taking measure to facilitate there still exist problems. The Annual status of Education report (ASER) revealed that 38.2% of children are without Smartphone. Students and Teacher residing in rural and remote areas are facing the internet connectivity issues. There is discipline which are Skill-based, requires hands on training, laboratory work and practical, tours and the like that are badly affected as many institutions could not arrange facilities due to lack of finance and adequate infrastructure.

Problem is an opportunity in disguise if we choose to see it. The Covid-19 situation if we look through the positive lens offers us a lot of opportunity to grow and learn new thing.

Objectives of the Study

1. To determine the challenges in educational sector post Covid-19 situation.
2. To determine the opportunity in educational sector post Covid-19 situation.
3. To offer suggestion on the challenges face in educational sector post Covid-19 situation

Methodology

For the present study Qualitative approach has been adopted. The study is analytical in nature. The present study is based on Secondary sources of data collected from Journal article, Newspaper, Magazines, Government websites and other International organizational websites.

Findings of the Study

Challenges in educational sector post covid-19 situation

1. Affordability of the technological device for Learning.

Poor economic condition and other factor forced them to sell their belongings to buy smart devices to continue their learning process. It was reported in the news that a man from Himachal Pradesh in India had to sell his Cow to buy smartphone for their two children so that they can attend their online class.

2. Internet Connectivity Issue

Poor internet connectivity is one of the frustrating problems faced by the students. This problem is prevalent for students who live in rural and remote areas. As reported in the newspaper a girl from Kerala in India climbed the rooftop of tilted two storeys building for hours to attend her class. She was left with no choice but to do what she did as that was the only way for her to attend the class.

3. Fund for digital learning

As Covid-19 pandemic has disrupted the economic condition of many countries, Lack of fund for supporting digital learning is a challenge for the educational institution.

4. Computer Illiterate

Many teacher, parent and students are not accustomed to online learning as they are not equipped with the skills and knowledge required for operating computer. According to some estimates computer literacy in India is just 6.5% and we still have less than 50% internet penetration.

5. Excessive time spend on smart devices by the students

In a study empowered by a handset maker VIVO which was conducted by CMR revealed that an average time spent on smartphone in a day has increased 11% to 5.5 hours in March 2020 from about 4.9 hours on average in 2019, the report entitled “Smartphone and their impact on human relationship 2020 said. The study comprised 2000 respondents aged 15-45 years across the top eight cities with 70% male and 30% female participants.

6. Discipline that requires laboratory practical

It is a challenging task for student and teacher who are in discipline that requires laboratory practical, experiment, hands-on training, field study, tours and the like.

7. Less student-teacher relationship

The adoption of blended and distance mode of learning reduces the close relationship between the teacher and student. As most learning take place through blended and distance mode there is a physical absence of teacher in the teaching-learning process.

8. Students drop out of educational institution

According to United Nations, 24 million students are likely to be out of school. Drop out of educational institution is another challenging issue since most of the parent are out of job and receive less amount of pay, they struggle to send their children to educational institution.

9. Changing role of the teacher

The teacher can no longer stick to the role assigned to them before covid-19 pandemic. As the pandemic disrupted the normal functioning of the educational institution, it demands the teacher to perform many roles to help the students adapt to the New normal in education in particular and society in general.

10. Meals

In most of the world school feeding programme provide children with the most nutrition meals of the day. It is essential for cognitive development of the children. During covid-19 most of the countries has been face difficult situation to provide mid day meal to the children.

Opportunities in educational sector post covid-19 situation

1. Collaboration between teacher, student and academia globally.

During the covid-19 pandemic many teacher, student and academia are seen collaborating carrying out international conference, international seminar and other academic work. It is a good opportunity for the educational community to continue the work of sharing information on a global platform.

2. Enhancement of digital skills

From the positive point of view, Covid-19 pandemic opens up the door for the teacher, students, parent and other stakeholder to learn new skills especially the computer skills.

3. Independent learning by the student

Switching the learning from conventional face-to-face to blended learning during the pandemic makes a way for the students for self-learning. It empowers them to take initiative as well as make them accountable for their learning.

4. Access to vast online learning resources

The teacher and student with basic digital skills can access to vast learning material most of which are free to access. They can enlighten themselves with rich source of knowledge. Many E-learning contents and source have been developed during the covid-19 pandemic.

5. Learning through one's own convenience

The use of Digital medium during pandemic removes the limitation that were experienced in conventional face-to-face classroom. The student and teacher can exchange knowledge and lesson without the need for real time response as most of the platform they use

for learning are asynchronous. The student and teacher can carry out their task at their own time and place.

Discussion

Internet connectivity issue is not a new issue in many parts of the developing country due to lack of infrastructure, due attention and accessibility problem. Student living in rural and remote area had to undergo this problem. Many student's despite of having smartphone devices could not attend their classes, take exam and submit assignment. There are students who cannot do well in the physical absence of teacher in the classroom. Providing funds for Digital learning by the government is a challenge as an economic condition is already disrupted by the Covid-19 pandemic. At some point of time students have been deprived of the right to receive education. Health hazard caused by excessive use of gadget is serious concern. Student and teacher who are in discipline that require laboratory practical, hands on training, tours, field study and related work suffer a lot as it was difficult to arrange the facilities for them. The teacher is not just a content deliverer but a role model to the students in adjusting to the New normal. He shall be a good listener. psychological and emotional needs of the students shall be given attention. Conducive and joyful environment shall be created by the teacher to enhance learning.

The covid-19 pandemic opens the door for the world to work and share information together removing whatever differences that may exist. The teacher can develop their skills like delivering lectures, interaction and presentation through some video conferencing apps and opening channel in YouTube. Physical distancing and maintaining Covid-19 protocol make way for the students to learning independently and responsible and accountable for their learning. It is an opportunity to the teacher and student to access to vast resource of learning. The Digital learning has removed the limitation of time and space for the teacher and student.

Suggestions

1. Steps may be taken by the Government in providing internet connectivity facility to those students who are living in rural and remote areas.
2. Government may partner with telecom operator in providing internet connectivity in an affordable rate or may be free of cost as the private companies are charging soaring price many students could not bear the cost for internet.

3. Special attention may be given in the curriculum to develop the technological know-how of the students and teacher.
4. Parent shall supervise their ward in using the smartphone for learning. It may be noted that smart devices are used only for the duration that is required.

Conclusion

Digital divide is one that needs to be given attention and take some steps to overcome problem. Lack of resources, poor economic condition of the students, differences in the place of residential location and computer illiteracy are some of the reasons that digitally divide the students. In view of these right to education become a question that need to be addressed. Many students have been deprived of the educational rights due to non-availability of smart device and good internet connection. The opportunities in educational sector if taken in a serious manner can make virtual learning as a substitute for conventional face-to-face learning to some extent. The present paper will help agency concerned to make plans and strategy to combat the challenges. The opportunities presented here can help the teacher and student to stay at par with global situation and adjust to the 'New normal. This study is based on secondary sources therefore Empirical study for this area is needed. The other researcher can conduct their study on the problem faces in education at different stages, students belonging to marginalized section of the society and students residing in rural and remote areas.

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7. “Post COVID-19 Scenario in Libraries”

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Abstract

In response to the COVID-19 epidemic, the situation of library services has modified. Most of the libraries providing services through web to satisfy their user's demand. Libraries are continued to produce its services in post COVID-19 scenario with some precautional measures. Post internment amount are utterly totally different atmosphere than it absolutely was before internment. The library rules and rules, guides, brochures, lecture room facilities, outside guests, guests, the workers and student relatives, there'll be restrictions to everybody. there'll be needed to vary the library policy, rules and rules, to form positive that each person and also the resources ought to be safe within the library, swing limit on numbers of scholars, workers and guests victimization the library at anybody time. Developing the system of overall assortment development of e-books and supply access through remote while not human contact. The library rules ought to be revised and it ought to be clearly communicated to any or all via e-mail and also the bulletin board. This paper states that library services ought to be supplied with precautional measures in post COVID-19 scenario,

Keywords: what's COVID-19, purpose and objectives of library, post COVID-19 situation in libraries

Introduction

COVID-19 looks to unfold from person to person by a similar mechanism as different respiratory disorder or respiratory disorder viruses—i.e. by face to face contact with a sneeze or cough, or from contact with secretions of individuals World Health Organization are infected. The role of fecal–oral transmission has nonetheless to be determined in COVID-19 however was found to occur throughout the sooner Severe Acute metastasis Syndrome (SARS) eruption (Heymann & Shindo, 2020). The COVID-19 pandemic is quickly spreading to countries round the globe (Lipsitch, et. al, 2020). Libraries, as a social establishment, are chargeable for making certain public health awareness and also the provision of up so far data to clinicians and

managers. However, within the age of multiple data sources and various communication channels users don't invariably access the foremost valid data. it's calculable that there are eleven totally different varieties of data sources locomote from valid data to untrusted or uncertain data (Ashrafi-Rizi, H., & Kazempour, 2019). specialists within the field of infectious diseases counsel that in an endemic virtual communication provides an honest thanks to inform patients World Health Organization are in isolation wards (Hollander & Carr, 2020). Google Trends has become a helpful tool for watching awareness regarding public health at each national and international levels. It shows a relationship between topics associated with COVID-19 and search volumes.

Library services in COVID-19 scenario

In epidemics and through the Covid-19 pandemic scenario, once data eruption is big, it's the time to inform the society of the importance of libraries and also the role of librarians in organizing and diffusing the data. correct data is that the key to handle the chaotic scenario. Exchange of false data looks to air the increase. it's created a scenario of 'infodemic' as declared by the Director General of World Health Organization. This has not solely affected analysis work severely however has conjointly created chaos among the laypeople.

In the case of analysis, authentic data from multidisciplinary data sources is crucial for the event of vaccines, handling social problems, and to form rules and rules. Researchers' are extremely smitten by libraries for reliable data. Latest information regarding the continuing analysis is formed offered to researchers through peer-viewed tutorial journals, books and reports signed by the libraries. These resources ought to be shared for diffusing analysis results that facilitate researchers to form a lot of knowledgeable choices regarding the eruption. Lack of handiness and non-accessibility of authentic data, the analysis couldn't progress well. Realizing the requirement of knowledge, particularly in pandemic price another data services are designed by librarians for researchers, particularly for those operating off field.

Purpose and Objectives of Library

The purpose and objective of library are terribly wide which give support and contribution to education and analysis activities of their tutorial establishment. These are as follows

- To extend the image of associate degree academy as a centre for excellence, particularly in respect of knowledge sources.

- To enhance the standard of education at each level of teaching and learning. • Increase the number of knowledge offered for college kids et al..
- Increase the worth of knowledge and facilitate in its most use through support service.
- Increase the analysis output by school and analysis students through effective provision of knowledge resources and also the support services.
- Develop the role of knowledge resources as associate degree economic investment for getting funds for academy and its infrastructure.
- Increase the cooperation within the use of knowledge resources and facilitate within the. development of networking.
- Increase the extent of cooperation with different establishment, industries, etc with respect of knowledge resources.
- Increase the effective use of expenditure throughout the university in effort, producing and victimization data resources.
- Offer customized info system for supporting the college and students.
- Shield and promote academy's interest with respect of external policies by developing its ability to use data resources in support of its tutorial responsibilities.
- Develop the means that to claim that school and students have access to the technical data support required to use data resources effectively.
- Develop single purpose access to the total vary of knowledge resources within the academy and its neighborhoods.
- Establish personal policies for full vary of workers involved with data analysis.
- Method data on to work station and resource utilization points and
- Some resources are freely accessible while not subscription for restricted days such as-
i) Project Muse \ii) JSTOR iii) E-Shodh Sindhu iv) Springer publishers

Core Library Services in COVID-19 scenario

Maintain Core Library Services for Users During a pestilence the library should additionally continue support its regular users. Throughout the recent lockdown several libraries have managed to supply virtual support to their users, like provision of references, document delivery, literature searches, and systematic reviews. Some libraries have initiated on-line webinar and sessions to stay up-to-date with their users via Google room, Google Hangouts, Skype, or Zoom. • Some libraries giving facility to renew book on-line during this scenario. • We

do our greatest to induce you access to what you wish. With employees operating remotely, obtaining scans from books inside the library is suspended. However, you'll be able to request articles and book chapters through unwell and that we can try and get chapters or presumably whole e-books, however it depends on World Health Organization is in a position to fill the request. → Librarian aim to try to to 3 things: 1) support public health awareness; 2) support analysis groups, researchers and faculty; and 3) give routine core services for normal library users. These activities can continue for as long as necessary. want|a requirement|a necessity|a desire} for info exists in each crisis; librarians and knowledge skilled should be able to meet this need whether or not it's for COVID-19 or one thing else. though social distancing is nice thanks to stop the unfold of COVID-19 info access to users remains a social responsibility of our librarians and knowledge personnel. →Project the academic's static's at a war front development in term of data resources through instructional, skilled, technical and technological studies. In short, the library provides resources to encourage cultivation of curiosity, intuitive thinking, intellectual energy and live-long learning for the education community. Its main role is to supply info to lecturers and learners. Tutorial library may be a analysis, learning support entity in a tutorial surroundings. There are numerous styles of info services provided by tutorial library that have user to spot the subject for analysis, and also the procedure for understanding, the information already identified and punctually documented.

Post Covid-19 state of affairs in Libraries

- a. Post internment amount are utterly totally different surroundings than it absolutely was before internment. The library rules and laws, guides, brochures, classroom facilities, outside guests, guests, the employees and student relatives, there'll be restrictions to everybody. There'll be needed to vary the library policy, rules and laws, to create positive that each person and also the resources ought to be safe within the library.
- b. putt limit on numbers of scholars, employees and guests victimization the library at any one time, and see that a way to enforce these, yet as distinguishing locations in and round the library wherever folks might gather closely along, for instance victimization unidirectional (if possible) entrance and exit separate. Limiting piece of furniture, closing the reading rooms, or continued to delay programs. it's additionally recommended to shut the bogs for safety purpose (practically it's not easy), the choice is intensive cleansing the bogs often.

- c. Promoting on-line services and resources so as to regulate on numbers trying to go to the library
- d. Developing the system of overall assortment development of e-books and supply access through remote while not human contact
- e. The library rules ought to be revised and it ought to be clearly communicated to all or any via e-mail and also the board. If associate degree changes takes place within the rule (revised) that ought to even be communicated at an earliest to the scholars and employees and every one the library members.
- f. The library system is in transition part a minimum of up to the tip of COVID nineteen. To shield the employees from the virus, the mandatory instrumentation ought to be provided and coaching is a vital issue. The instrumentation includes clear screens if necessary, providing the piece of furniture in such the simplest way that minimum distance with the scholars and also the library users ought to maintain. Promoting work from home whichever is feasible during this approach numbers of the employees, students and different users will be put out management.
- g. specializing in regular cleansing processes, short breaks ought to be provided for library exclusive for cleansing purpose. the eye ought to incline for intensifying cleansing to the plastic, silver surface wherever the virus seem for extended amount, except the surfaces of copper and onerous paper wherever the virus seem for brief amount.
- h. it's required to clarify that if scenario of spreading COVID nineteen founds quickly thanks to the gap the library, it's going to shut at any time for the protection of all with or while not notification and it'll be open up once things return traditional and safe or a minimum of in restraint. India is geographically Brobdingnagian country with twenty eight States, 9 UTs and more 739 districts. The climate from south India|Bharat|Asian country|Asian nation} to North India is very dissenting and equally it additionally differ from east and west a part of the country. Consequently, the intensity of the diseases isn't equal at country level yet as state and UT or perhaps district level.

Conclusion

In response to the COVID-19 epidemic, the situation of library services has modified. Most of the libraries providing services through web to satisfy their user's demand. Libraries are continued to produce its services in post COVID-19 scenario with some precautional measures.

Post internment amount are utterly totally different atmosphere than it absolutely was before internment. The library rules and rules, guides, brochures, lecture room facilities, outside guests, guests, the workers and student relatives, there'll be restrictions to everybody. there'll be needed to vary the library policy, rules and rules, to form positive that each person and also the resources ought to be safe within the library, swing limit on numbers of scholars, workers and guests victimisation the library at anybody time. Developing the system of overall assortment development of e-books and supply access through remote while not human contact. The library rules ought to be revised and it ought to be clearly communicated to any or all via e-mail and also the bulletin board. This paper states that library services ought to be supplied with precautional measures in post COVID-19 scenario,

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8. Repercussions of Covid 19 Crisis on Exchange Rate and Inflation

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Abstract

To look into the effects of covid-19 lockdown on the Indian economy This paper will focus on three macroeconomic factors such as the exchange rate, the Consumer Price Index (CPI) and the GPI. Indicators such as this are important because we want to understand both internal and external causes of lockdowns. Various studies employed regression, F-test, and Shapiro-Wilkov Test The GPI and regular foreign exchange investigation started at 3rd June 2019. The report has used the US dollar, pound sterling, the euro, and the yen as the four international currencies. This research further shows the influence of Covid-19's situation in describing the [worsening of] seizures and/aggravation of seizures. However, lockdown has not had no effects on CFPI, but had a noticeable effect on the exchange rate.

Introduction

Corona viruses have impeded the economic development in India. When assessing transmission alterations while also taking into consideration the commercial situation in real time and in a high-dimensional manner Covid-1923 said that in terms of economic operation, moreover, lives, has been lost. Nearly all of the divisions of the economy were adversely affected as internal demand and export market activity were exposed, but only a few division emerged successfully. Some fundamental economic indicators are given some attention in an attempt to determine the consequences and their possible explanations.

Industry sectors around the world feared the spread of the influenza virus because of many questions remained about the pandemic. Work-from-from-home stresses in the Indian economy may be another, as previously estimated. If the lockout means less jobs, it leads to a higher unemployment rate. Low population density areas (i.e. rural areas) are the most badly contaminated. For the ensuing year, the GSDP has declined rapidly.

The Divs concluded to consider distinct price drops ranging from 3 to 23% for each market. This became a problem for the influential player as he couldn't get full output if he went

below the total potential. However, for small businesses, the travel factor was significant. Overall, the pandemic had a widespread influence on daily life.

Nonetheless, in the face of a rising viral attacks and a before-COV HIV (human immunodeficiency virus) economy, the government was absolutely committed to fighting the threat of infection and took measures accordingly.

Literature Review

It is predicted that, beginning in the spring of 2020, the world will be contaminated with a new disease. There was an outbreak of the new coronavirus (severe acute respiratory syndrome CoV2, or SARS-CoV), later referred to as Coronavirus or CO19, which threatened the lives of many people (Qiu et al., 2020). Despite the high popularity and global impact, COVID had originated in the Wuhan province of the Hubei Chinese province, leading to numerous human deaths and financial losses. 8 million COVID-19 cases were reported by that time, with over 436,000 fatalities in June. Despite the rapid distribution of COVID, the introduction of several global public health measures, including the cessation of public contact, CO19 continues to proliferate (Fong et al., 2020) 1. distancing themselves from engaging in mass-meetings and lock-ins have been forbidden (John Hopkins University, 2020a). COVID-19 is predicted to lead to a downturn in the pace of economic activities. There is a 3% risk that the world's economy will shrink according to the IMF's latest forecast (which has not yet happened). It is projected that the recession will be much worse than the worldwide economic downturn of 2008-2009. However, according to the new World Economic Forecast, the International Monetary Fund has revised the estimate to 4.9% by 2020 (Guthrieves) (June 2020). Here are the conclusions that can be drawn from the details found in the report

1. Larger persistence in social distancing actions
2. Lower locking activity
3. Higher fall in profitability among companies for businesses
4. More sweeping uncertainty

The case was filed in Kerala on the 30th of this month (30 January 2020). Constant innovation will be a catalyst for the country's success in the next decade. Until March 24, 2020, there are 536 COVID-class infractions that have been registered, of which 10 were caused by it and 40 have been recovered. The overall mortality rate in this country is 0.01 for every million

people compared to 2.4 in the US, 136 in China, and 104 in Spain, 3.2 in Germany, and 28 in Iran. Beginning on March 25, there have been 471 cases of COVID-19 contamination with 3,335, with 3,130 cases already running cases, and over one thousand handled. A total of 14,792 and 7,182 deaths is attributable to this worldwide. It increased by 15.71%, while the mortality rate increased. It was realized on March 25th that China (21,285), Italy (74,386), Spain (49,621) and Iran (50,174) had the greatest populations of this year, but the US (65,154) was the most common major breacher of these three (27,017). Track Industries recently announced that they want to buy 5 million squares of patterned metal from suppliers for COVID-19 Trackers, estimated delivery of a year and a half later, with an approximate value of \$4 billion dollars and half a billion dollars.

The most recent corona virus caused a global health crisis when it emerged in the WHO's data as a new pandemic on March 11, 2020, declaring a pandemic. Success does not inherently correlate to efficiency. "Just do the best you can." (Creative Sohrabi et al. and WHO). Wuhan's craze spread rapidly across Japan, South Korea, and the rest of the world. Near the end of the pandemic, the world has already begun to move considerably, according to several market indices (Gopinath, 2020). (Some reports dating back to the year 2012 had correctly predicted that a global pandemic will bring about cross-triggering global economic crises due to the interconnected world we are currently living in. For all practical purposes, the unfolding disaster seems to have exceeded all expectations. When the virus was discovered, more than 800,000 individuals were killed, trillions of dollars in global commerce were disrupted, and thousands of lives were lost (Naidoo and Fisher, 2020). Countries around the world have implemented stringent regulations, such as national locking and borders, in an effort to contain the virus.

Today, these approaches have undermined the fundamental economic foundations of the modern world. In the meantime, the economic impact of this disease is still being investigated. Data flows in and into national economies, wreaks havoc with supply chains, and scatters globally across financial markets (Bachman, 2020; Sarkis et al., 2020). The latest research shows that we are in the midst of a sustainable era when it comes to rethinking sustainable pathways. Government policies have produced "accidental" positive as well as negative environmental and natural consequences. The immensity of possibilities now seems to have dramatically changed on the world (Anderson et al., 2020). As Naidooly and Fisher (2012) suggest, however, globalization and economic growth can no longer be relied on to help fund or spur the transition

to green investment and sustainable development. Decoupling economic development with resource use, waste management, and at the same time generating resources has been suggested as a solution to the global recycling crisis.

The most important issue to focus on is the potential effects on the public. Even if governments all over the world have recently launched incentives in the interest of economic recovery, some issues need careful economic design to be addressed in their entirety. In light of the paper's incorporation of COVID-related impacts (Gates, 2020b; Guerrier, 2020; Piguillem, 2020; Sohrabi et al., 2020) in the social, health, and environmental realms, it investigates the relationship between these dimensions. Development and sustainability argue in favor of rebalancing and reinvigorating the current economic structures. Linear markets and profit-focused processes in terms of production usage of resources both underpin global growth with an aim of resource management support, and energy-intensive activities. To stimulate the global economy in the paper proposes specific sector-related strategies to increase the welfare and reduce the impact on the environment by using COVID techniques. It is unknown if the EC's "pandemic policies and behaviors" may have been exploited or encoded to provide both incentive and resistance during the coronavirus crisis.

Crisis events and macroeconomic activity seem to have had a limited effect on Taiwan in on-bound tourism demand, as found in a paper published by him titled The impact of macroeconomic variables on Taiwan's inbound demand is constraining. They're both pretty critical when it comes to making business decisions. During the occurrence of the SARS outbreak, in the amount of 2001, inbound tourism was most severely impacted.

Objectives of the study

1. To study the impact of coronavirus on foreign exchange.
2. To study the impact of coronavirus on food price index and general price index.

Hypothesis of the study

H1- There is no significant impact of Covid-19 on foreign exchange fluctuation.

H1(a)- There is no significant impact of Covid-19 on US dollars fluctuation.

H1(b)- There is no significant impact of Covid-19 on Euro fluctuations.

H1(c)- There is no significant impact of Covid-19 on pound sterling fluctuations.

H1(d)- There is no significant impact of Covid-19 on Japanese Yen fluctuations.

H2- There is no significant impact of Covid-19 on price indices.

H2(a)- There is no significant impact of Covid-19 on general price Index of India.

H2(b)- There is no significant impact of Covid-19 on consumer food price Index of India.

Research Gap

Covid-19 research in India shows that no one has researched the effect of corona virus on the Indian economy, the foreign currencies, the General Price Index of Goods and Services and the Consumer Price Index. To use these criteria, we hope to be able to examine the effect of Corona in both India and in particular. Once we's know where it is, we can begin to plan policies for the effect can be realized. Specifically, the results in the Indian economy on the blockade of i.e. March 25, 2020 will be noted in this report. A look at how Corona has impeded India and how much of this.

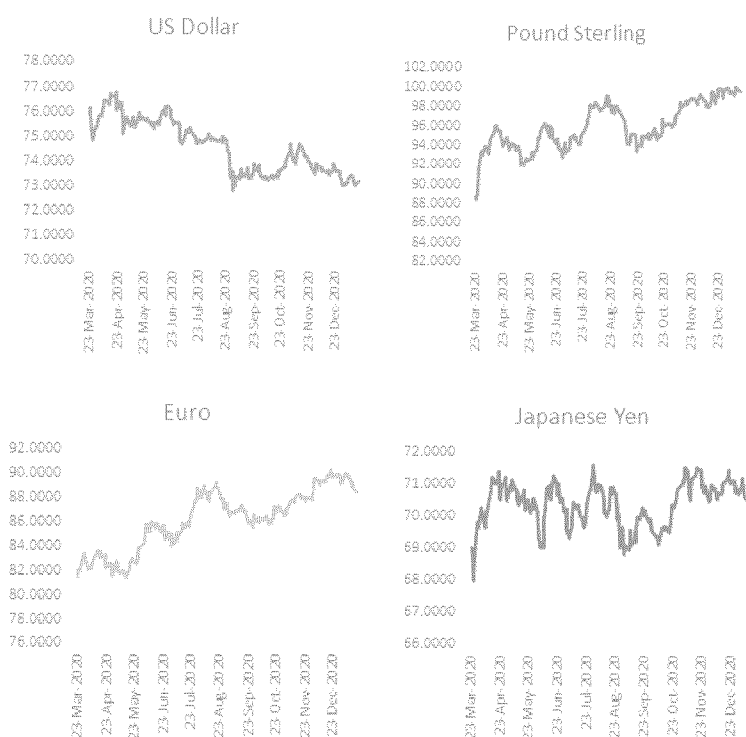
Research Methodology

Covid-19 research in India shows that no one has researched the effect of corona virus on the Indian economy, the foreign currencies, the General Price Index of Goods and Services and the Consumer Price Index. To use these criteria, we hope to be able to examine the effect of Corona in both India and in particular. Once we's know where it is, we can begin to plan policies for the effect can be realized. Specifically, the results in the Indian economy on the blockade of i.e.e. March 25, 2020 will be noted in this report. A look at how Corona has impeded India and how much of this.

Performances of Different Currencies Post Lockdown

Diagrams in figure-1 show the since the implementation of currency restrictions in India, there are dramatic currency fluctuations The four main currencies have been found to be the British Pound, the Euro, the Japanese Yen, and the US dollar and the Indian rupee. According to the final report, market fluctuations would be compared on a pre-Covid world and a post-Covid market. Under Lockdown we will be performing an experiment to see whether the variations before and after CO19 are substantially differ. It's a vital specification that can have a huge implications on the economy. Foreign exchange fluctuations occur as the same way one country's currency is stronger or weaker in value in relation to others. Although currency fluctuations occur regularly, few individuals recognize their implications for everyday life. In most countries, floating exchange rates are the product of currency fluctuation. Additionally, various factors such as currency supply and demand, inflation, interest rates, and movement of

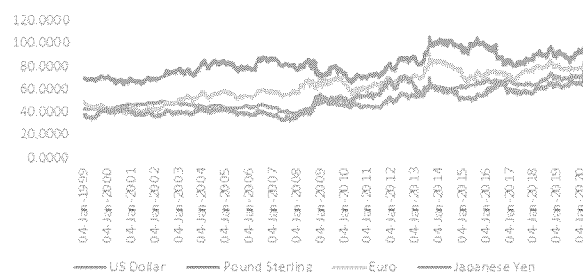
money through countries will impact exchange rates, amongst other things. While currency volatility's influence on the economy has not been felt by the people, it has a major effect on those who deal with the market. Most of their everyday business is conducted in U.S. dollars. When doing business overseas, carrying out operations or transactions such as international trade, currency transactions, foreign exports, and international transfers, the exchange rate impact of these fluctuations can be expected.



Fluctuations in Currencies Pre-Lockdown

Figure 2 signifies the fluctuations that were happening in foreign currencies before covid-19. To study these fluctuations is important to analyze the Balance of payment status of any economy. Currency variations are a common consequence of floating exchange rates, usually used in most global marketplaces. Many variables affect exchange rates, like financial performance, inflation forecast, differential interest rates, capital flows etc. The exchange rate of money is generally dictated by the power or inclination of the underlying economy. As a consequence, the value of a currency will fluctuate from time to time.

FIGURE-2 PERFORMANCE OF CURRENCIES PRE-COVID



Comparison of Fluctuations in Us Dollar Pre and Post Covid

Summary of Data	Treatments		N	ΣX	Mean	ΣX ²	Std.Dev.
		POST-COVID	198	14763.88	74.5651	1101084	1.0426
		PRE-COVID	198	14067.22	71.0466	999798.8	1.3722
		Total	396	28831.11	72.806	2100883	2.141

Result Details	Source	Between-treatments	Within-treatments	Total
	SS	1225.604	585.075	1810.68
	df	1	394	395
	MS	1225.604	1.485	
		F = 825.34386		

From the above results, it can be seen that fluctuations can be influenced by US dollars, it appears that the flu pandemic made major differences. Before Lockdown: Standard Deviation = 1.04; After Lockdown: Standard Deviation = 1.22 If we compare means, it has a higher mean of 74.651 (pre lockdown) and lower mode of 71.04 after. The f-ratio meaning is eight-to-one-and-thirty-two-point-four-eight-six-three-six. the p-value is less than one thousandth of a percent. There is an important difference at $p < .05$ Hence, we may conclude that the null hypothesis is false.- H1(a).

Comparison of Fluctuations in Pound Sterling Pre and Post Covid

Summary of Data	Treatments		N	ΣX	Mean	ΣX ²	Std.Dev.
		POST-LOCKDOWN	198	19025.52	96.0885	1829128	2.2461
		PRE-LOCKDOWN	198	17846.91	90.1359	1610518	3.0812
		Total	396	36872.43	93.112	3439646	4.0164

Result Details	Source	Between-treatments	Within-treatments	Total
	SS	3507.898	2864.121	6372.019
	df	1	394	395
	MS	3507.898	7.2693	
		F = 482.56052		

Before the pandemic, the Pound sterling vacillations were substantially different from pre-lockoutward currency fluctuations. Prior to lockdown, the average pound-variation has been at 2.24.61; following lockdown, it is now at 3.12. Analysing the data after it has been disabled, we can define a distinct expression by its locked pre- and post-locked values of 96.08 and 90.59. An f-ratio of 482.52 is present. the p-value is less than one thousandth of a percent. To reach statistical significance, the results must be meaningful at the level of p less than or equal to .05 Hence, we may conclude that the null hypothesis is false. - H1(b).

Comparison of Fluctuations in Euro Pre and Post Lockdown

Summary of Data			N	$\sum X$	Mean	$\sum X^2$	Std.Dev.
	Treatments						
		POST-LOCKDOWN	198	17102.36	86.3756	1478342	2.3796
		PRE-LOCKDOWN	198	15616	78.8687	1231959	1.3243
		Total	396	32718.37	82.622	2710301	4.2217

Result Details	Source	Between-treatments	Within-treatments	Total
	SS	5578.964	1461.03	7039.994
	df	1	394	395
	MS	5578.964	3.7082	

We are aware that different degrees of fluctuation existed before the COVID-19 pandemic started. When measured compared to its preceding time, this phenomenon's effects on the Euro become 2.3796 standard deviations above average, and after are 1.243 standard deviations below average. As we measure averages, the value decreases from 86.375 to 78.81768. The ratio is 3:1. Overall, the results have relevance at the .05 stage to the best of our capacity, we should reject the argument that H1 (c).

Comparison of Fluctuations in Japanese Yen Pre and Post Lockdown

Summary of Data			N	$\sum X$	Mean	$\sum X^2$	Std.Dev.
	Treatments						
		POST-LOCKDOWN	198	13938.89	70.3984	981368.2	0.6841
		POST-LOCKDOWN	198	12994.85	65.6306	853356.4	1.5886
		Total	396	26933.74	68.014	1834725	2.6813

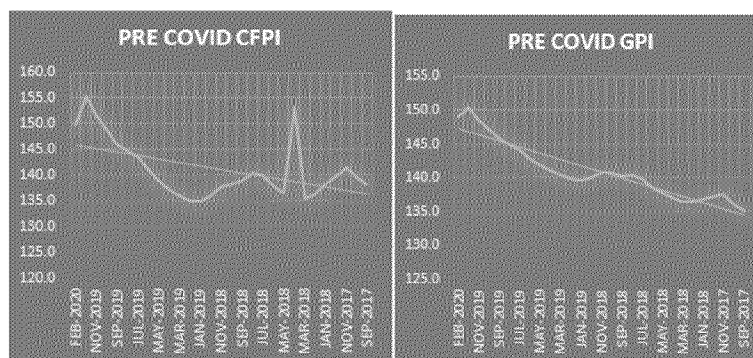
Result Details	Source	Between-treatments	Within-treatments	Total
	SS	2250.534	589.3557	2839.89
	df	1	394	395
	MS	2250.534	1.4958	
		F = 1504.5422		

As can be seen from the above information, prior to the lockdown, it is apparent that the yen price changes have differed greatly between Japan and the rest of the world. Coronavirus has triggered fluctuations in the Japanese yen that were approximately 41% higher than average. If we look at the means, we can see a different picture. The 1504.22 ratio. There is an important difference at $p < .05$ we may therefore conclude that the null hypothesis (H_1) is incorrect (d).

Analyzing the Changes Caused in Price Indices Because of Covid-19

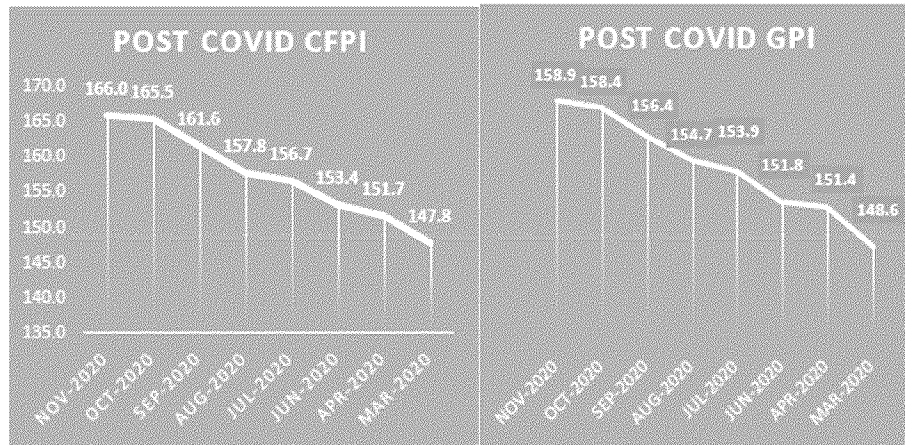
Performances of CFPI and GPI before Lockdown

A commodity price index for retail use by identified consumers for a particular time period is a representation of the rate of change in the prices of food commodities applied to a reference base year. according to the Reserve Bank of India in December 2019, food prices are generally of major concern for families, and these will shape their inflation expectations as well. The results indicate that this could impact food-price inflation in the industry. A research indicates a link between inflation perceptions and urban consumer prices based on the Consumer Price Index (CFPI). Prices affect food prices for a period of time. It demonstrates the accuracy of the simulated results, making the result stronger. Fluxes in CFPI and GPI before the lockdown of Covid-19, shown below. When you examine the two-dimensional graph, you can see that the two values are positively correlated, with each other, meaning that both are getting better with time. These values will now be contrasted with post-lockdown in relation to the effect that they have on indexes or not, and the effects will be compared to them.



Performances of CFPI and GPI after Lockdown

Ehsan Ebrahimi, Deniz Igan, and Soledad Martinez Peria, discriminated within both conceptually and empirically various macroeconomic factors in the IMF study (September 10, 2020) Anyone who is a graphic designer knows that his true vocation is not writing word processors or electronic control units, but designing creative experiences for others. One of the striking global phenomena of the 1990s was the rising prices for food, especially for staples, that occurred in many developed and mature economies around the world, including the U.S. But it's not well known, so you need to use indexes that are more detailed and exhaustive. If the doors open, however, the amount of inflation does not become standardized. While prices are still declining, inflation has actually started to rise again recently. As you can see, indices such as CFPI and GPI are increasing as well as the graph below. If this is a large or small improvement in the productivity is being looked at in detail in the next section.



Comparison of fluctuations in indices before and after lockdown

CFPI

I. **H0 hypothesis**

The contrast between the sample standard deviation (S) of the post and **pre LOCKDOWN** fluctuations in CFPI is not big enough to be statistically significant.

II. **P-value-** The p-value equals 0.482, ($p(x \leq F) = 0.241$).

III. **The statistics-** The test statistic F equals 0.5936, which is in the 95% acceptance region: [0.236; 2.4716]. $S1/S2=0.77$, is in the 95% region of acceptance: [0.4858 ; 1.5721]. The 95% confidence interval of σ_{12}/σ_{22} is: [0.2402 , 2.5154]

IV. **Normality assumption**

- The assumption was checked based on the Shapiro-Wilk Test. ($\alpha=0.05$).

- It is assumed that **post-Lockdown data** is normally distributed (p-value is 0.84), or more accurately, you can't reject the normality assumption.
- It is assumed that **pre-Lockdown data** is normally distributed. (p-value is 0.367), or more accurately, you can't reject the normality assumption.

GPI

I. H0 hypothesis

The contrast between the sample standard deviation (S) of the post and **pre-LOCKDOWN-19** fluctuations in CFPI is big enough to be statistically significant.

II. P-value

The p-value equals 0.01164, ($p(x \leq F) = 0.005819$). It means that the chance of type I error (rejecting a correct H0) is small: 0.01164 (1.16%).

III. The statistics

The test statistic F equals 0.1444, which is not in the 95% acceptance region: [0.236: 2.4716]. $S1/S2=0.38$, is not in the 95% region of acceptance: [0.4858: 1.5721]. The 95% confidence interval of σ_{12}/σ_{22} is: [0.05843, 0.6119].

IV. Normality assumption-

- The assumption was checked based on the Shapiro-Wilk Test. ($\alpha=0.05$)
- It is assumed that **post-Lockdown data** is normally distributed (p-value is 0.908), or more accurately, you can't reject the normality assumption.
- It is assumed that **pre-Lockdown data** is normally distributed. (p-value is 0.114), or more accurately, you can't reject the normality assumption.

Conclusions and Future Research

This study would lead to a better understanding of how corona virus has affected India's economy internally and externally. This research concludes that Covid-19 has induced substantial volatility in the value of the global foreign exchange market. Consumer Food Price Index was almost unchanged because of Lockdown. The Lockdown does not apply to food, which got more expensive after the introduction of the Costa Rican revolution, is just a negative in relation to other companies, not the country's economy. And if the corona did not exist, the food would still be pricier due to inflation. Overall, GPI improvement can be shown statistically, but it is because of a non-statistically important change because of CFPI.

Future study includes studies that use data from various economies to substantiate the findings Coronavirus will aid our comprehension of the relationship between corona viruses and the rest of the economic indicators. GDP, consumer debt, and industrial productivity, among other indicators, may be brought into consideration in such an investigation.

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9. Situation of Online Education of Chemistry Subject during Covid-19 Pandemic Period in Vidarbha and Marathwada Region of Maharashtra State

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Abstract

Online education of chemistry is one of the new methods of teaching in covid-19 pandemic situation the covid-19 pandemic has disrupted teaching in a variety of institutions especially in degree colleges e-learning become the fundamental method of teaching the prospectus during the pandemic.

Keywords - Online education, pandemic, Covid-19, teaching.

Introduction

The offline education shifted to online education rapidly in this platform we collect some data through online survey method 20 selected questionnaires were designed and it send to student of various region like Vidarbha & Marathwada and their responses was observed in that some students of different region have same responses. In pandemic situation online education helpful and it also maintain social distancing but it is a one-way process.in offline teaching teacher can read the face of student and easily identify the face who does not understand the topic teacher can clear the topic in face to face teaching.

Each and everything has two side one is positive and another one is negative and this online teaching positive side is no need to go college and students can access more number of topic with the help of different online tools and the negative side of online teaching due to unavailability of network and device like smart phone, laptop, etc.students cannot access the online class.

Experimental method

A survey was conducted by distributing an online questionnaire to B.Sc. and degree students especially Chemistry students. Data collected from the survey was evaluated with online google form responses there are 289 responses was collected from Vidarbha and Marathwada

region in that 200 female responses and 89 male student responses was collected. Primarily some basic question of chemistry is designed and it send on students WhatsApp group of different regions today the online education is need but some common problem of students in online education the engagement of student is major problem.

Result and Discussion

The questionnaire consisted of three parts in the first part of the survey students were asked to enter their demographic details like age ,gender, year of study.in the second part respondents were given that how many percentage of classes you have attended during pandemic ,have you attended any type of e-learning before the pandemic their opinion about these online education and in third part respondents were asked about the subject like the obstacle in online education of chemistry ,which branch of chemistry easily understood by online education ,how much online education of chemistry is useful would they think all concept of chemistry cleared in online education or not . online practical demonstration of chemistry is possible or not all these type of questions responses was observed and all collected data was analyzed

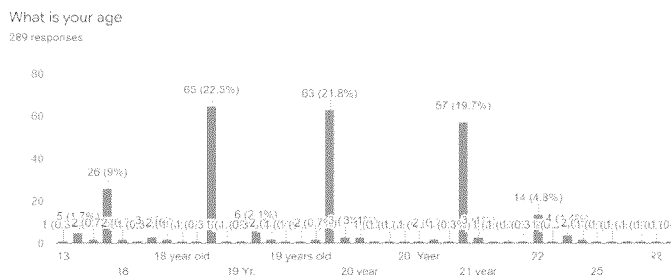


fig.1

09% of 18-year students 21.8% of 20 years students 19.7% of 21 years students & very less percentage i.e. 4.8% of 22 years students & rich in percentage i.e. 22.5% of 19 years student from that the 19 years of students has given more responses.

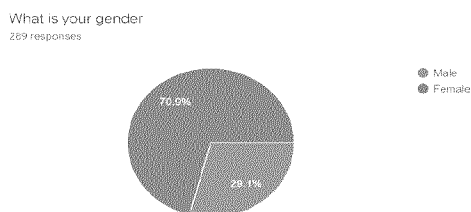


Fig.2

The online education attended female in more numbers than males.

whether you are attended online chemistry classes taken by your teachers in this pandemic covid 19 situation.
289 responses

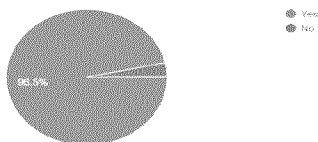


Fig.3

Your opinion about these online education.
289 responses

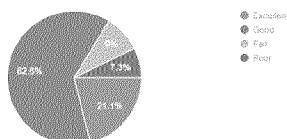


Fig.4

Which of the following is obstacle in online education of chemistry.
289 responses



Fig.5

From that survey we observe in online education the students were facing with network issue the other obstacles very less than network issue.

Which branch of chemistry is easily understood by online education of chemistry.
299 responses



Fig.6

From survey we can say that the organic chemistry is easily understand by online education than other to students from their responses. We also ask to student about the concept of chemistry is clear or not the students are jumbled about that their answer is may be in more number. Students are accessing network from their phone easily. Practical demonstration of chemistry is possible or not the answer got like yes in 36.7% No in 30.8% may be in 32.5% and a greater number of students also like new technologies which may require new approaches to learning and problem solving of chemistry.

Would you think all concept of chemistry cleared in online education.
289 responses

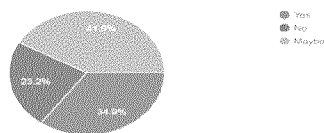


Fig.7

Conclusion

Online education is great for many students but may not be for everyone because some unfavorable conditions like network issue is one of the major problems and some students has economic issue, lack of infrastructure, unavailability of peaceful environment. In online education the subject chemistry especially organic chemistry is easily understood to students.

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10. “Reopening of Libraries in Post Covid-19 Situation”

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Abstract

With response to the COVID-19 epidemic, most of the libraries of the planet like library, faculty libraries, faculty libraries and university libraries are closed. And or so ninety eight countries have closed their national libraries. Republic of India declared total imprisonment at national level when twenty second March 2020 to interrupt the spreading of COVID-19 epidemic. Afterward the method of removing the restrictions was started step by step. Reopening of libraries may be a massive challenge to library professionals. We've got to shield library assortment, library workers and library users from this COVID-19 epidemic, for that we've got to follow preventive measures to forestall the COVID-19. This article states preventive measures ought to be applied in libraries to shield workers, users and library resources from COVID-19 epidemic.

Keywords-What's Covid-19, state of affairs of libraries at world at level, preventive measures to forestall COVID-19

Introduction

COVID-19 appears to unfold from person to person by a similar mechanism as different respiratory disease or contagious disease viruses—i.e. by face to face contact with a sneeze or cough, or from contact with secretions of folks UN agency are infected. The role of fecal–oral transmission has nonetheless to be determined in COVID-19 however was found to occur throughout the sooner Severe Acute metabolic process Syndrome (SARS) natural event (Heymann & Shindo, 2020). The COVID-19 pandemic is speedily spreading to countries round the globe (Lipsitch, et. al, 2020). Libraries, as a social establishment, are liable for guaranteeing public health awareness and therefore the provision of up to now info to clinicians and managers. However, within the age of multiple info sources and various communication channels users don't invariably access the foremost valid info. It's calculable that there are eleven totally different sorts of info sources travel from valid info to untrusted or uncertain info (Ashrafi-Rizi, H., & Kazempour, 2019). Specialists within the field of infectious diseases counsel that in a

scourge virtual communication provides an honest thanks to inform patients UN agency ar in isolation wards (Hollander & Carr, 2020). Google Trends has become a helpful tool for watching awareness concerning public health at each national and international levels. It shows a relationship between topics associated with COVID-19 and search volumes.

Situation of libraries at world level

Libraries within the World face onerous drawback of providing library services starting from continued existing services or a number of them or full closure. it's troublesome to match the library services with the govt. selections and intensity of the pandemic in numerous a part of the realm. We have a tendency to aware that governments themselves taking totally different approaches, generally ordering the closure of all establishments, others indicating that life ought to continue as was common, et al. merely exploit selections up to library administrators. in line with the supply, in a hundred and fifty countries within the World have closed the college libraries, in several countries similar state of affairs may be seen concerning university libraries. As per the worldwide state of affairs, eighty four countries from all the continents within the world have closed their public libraries; ninety eight countries have closed their national libraries (UNESCO, 2020). within the in the meantime, libraries in Australia (Oceania), Oesterreich (Europe), Belgium (Europe), Bulgaria (Europe), North American country (North America), Croatia (Europe), the European nation (Europe), Scandinavian country (Europe), Baltic State (Europe), Finland, (Europe), France (Europe), Germany (Europe), Hong Kong (China), European nation (Europe), Japan (Asia), possession (China), European country (Europe), New Seeland (Oceania), Norway (Europe), Polska (Europe), Sint Maarten (North America), Slovakia (Europe), European country (Europe), European country (Europe), Svalbard (Europe) and Switzerland (Europe) ready to re-open with taking into concerns of the health of workers, patronage and different library resources. Over ninetieth of municipalities have keep libraries open in Sverige (Europe) and over eighty fifth of municipalities have extended the services (IFLA, 2020). India has divided into twenty eight states and 9 Union Territories (UTs) and each State and UT has totally different stage of COVID nineteen. The Union Government has place criteria like active cases, doubling rate, and therefore the deaths because of the pandemic, however this case isn't permanent, the movement of individuals has started within the country and therefore the state of affairs might modification at any time. Even some States and UTs might modification its ranges from higher to middle or perhaps lower or vis-à-vis.

Purpose and Objectives of Library

The purpose and objective of library are terribly wide which give support and contribution to education and analysis activities of their tutorial establishment. These are as follows:

- To extend the image of associate academy as a centre for excellence, particularly in respect of data sources.
- To boost the standard of education at each level of teaching and learning.
- Increase the amount of data on the market for college kids' et al.
- Increase the worth of data and facilitate in its most use through support service.
- Increase the analysis output by school and analysis students through effective provision of data resources and therefore the support services.
- Develop the role of data resources as associate economic investment for getting funds for academy and its infrastructure.
- Increase the cooperation within the use of data resources and facilitate within the development of networking.
- Increase the extent of cooperation with different establishment, industries, etc with respect of data resources.
- Increase the effective use of expenditure throughout the university in feat, manufacturing and victimisation info resources.
- offer personalised info system for supporting the school and students.
- defend and promote academy's interest with respect of external policies by developing its ability to use info resources in support of its tutorial responsibilities.
- Develop the suggests that to say that school and students have access to the technical info support required to use info resources effectively.

Following steps to be carried out by libraries in post COVID-19 situation when libraries are reopen to serve the society.

Promoting hygiene

Be sure that the library staff must have a habit of (regular) wash their hands frequently (at least before and after coming into contact with suspicious material), access to safety materials such as gloves and facemasks, and that hands sanitizer is available at the entrance of the library as well as next to equipment such as computers, electronic on/off switches, land line telephone in the library (if common). The provision of (Pedal) bins for waste tissue papers or other potentially contaminated material have suggested (Flemish guidance, 2020) for the library. The frequently

cleaning of library at least twice/thrice or as required has suggested to avoid unwanted pandemic situation in the library. It may be necessary to employ more cleaning staff, or to extend working hours. They can be supported in identifying the surfaces at most risk, and give the attention wherever necessary.

The temperature check unit/s (thermometer) at the entrance is an essential and suitable staff to check the temperature is required during library working hours. In academic libraries in Hong Kong, the library users are subject to temperature checks and the facemasks is essential (IFLA, 2020).

The toilets in the library are the common area for spread of COVID 19. It has suggested closing the toilets in the library (Czech Republic Libraries) and restricting their use. Better to prepare intensifying cleaning schedules and take the interval (closing the library) as a whole for short periods during the working day in order to clean (as in Macao, China, Slovakia, or at the National University Library of Croatia), the surfaces which are regularly touched.

Preparation for re-opening

In several libraries within the World, there square measure steps have taken towards lifting restrictions, place at the time of closure, not near a minimum of part. The operating hours and dealing days stay unsure, in such how that safety ought to be a high priority. In such state of affairs, libraries:

A. Formulate library policy

1. Post internment amount are fully completely different atmosphere than it had been before internment. The library rules and rules, guides, brochures, classroom facilities, outside guests, guests, the workers and student relatives, there'll be restrictions to everybody. There'll be needed to alter the library policy, rules and rules, to form certain that each person and therefore the resources ought to be safe within the library.
2. golf stroke limit on numbers of scholars, workers and guests mistreatment the library at any one time, and see that a way to enforce these, likewise as distinctive locations in and round the library wherever folks might gather closely along, as an example mistreatment unidirectional (if possible) entrance and exit separate. Limiting article of furniture, closing the reading rooms, or continued to set back programs. it's conjointly suggested to shut the bogs for safety purpose (practically it's not easy), the choice is intensive cleansing the bogs of times.

3. Promoting on-line services and resources so as to regulate on numbers trying to go to the library
4. Developing the system of overall assortment development of e-books and supply access through remote while not human contact
5. The library rules ought to be revised and it ought to be clearly communicated to any or all via e-mail and therefore the board. If associatey changes takes place within the rule (revised) that ought to even be communicated at an earliest to the scholars and workers and every one the library members.
6. The library system is in transition part a minimum of up to the tip of COVID nineteen. to safeguard the workers from the virus, the required instrumentation ought to be provided and coaching is a necessary issue. The instrumentation includes clear screens if necessary, providing the article of furniture in such how that minimum distances with the scholars and therefore the library users ought to maintain. Promoting work from home whichever is feasible during this approach numbers of the workers, students and alternative users is put to sleep management.
7. That specialize in regular cleansing processes, short breaks ought to be provided for library exclusive for cleansing purpose. the eye ought to run for aggravating cleansing to the plastic, argentiferous surface wherever the virus seem for extended amount, except the surfaces of copper and laborious paper wherever the virus seem for brief amount.
8. it's required to clarify that if state of affairs of spreading COVID nineteen founds speedily thanks to the gap the library, it's going to shut at any time for the security of all with or while not notification and it'll be open up when matters come back traditional and safe or a minimum of in restraint.

B. Levels of re-opening of the library

According to the stage of COVID nineteen, there is also four levels of re-opening the library in India. The acceptable level is also selected and applies to the library for the protection of clientele, employees and alternative library resources. 1. a lot of or less as was common (States / UTs wherever < ninety nine active cases found) 2. Few restrictions (States / UTs wherever > a hundred and < 999 active cases found) 3. Minimum service (States / UTs wherever > a thousand and < 5000 active cases found) 4. Complete shut (Sates / UTs wherever > 5000 active cases have found) (The higher than levels or classes don't seem to be supported any

medical background or support however the author has categorised to produce the library services with taking care of its resources as well as human resources and therefore the plus, however the librarians and therefore the authorities could consult the medical professionals for safety purpose, if felt necessary).

A. Handling materials

A key question the library material shouldn't work as carrier of corona virus. At this stage the sole universal recommendations on maintaining social distance between 2 persons. however the libraries wouldn't limit solely with the social distancing between person to person however it's to be extended between active library materials to the persons.

B. Storage drawback of came back books

It has been seeing from the suggestions from numerous countries the length of the quarantine of books varies from two days to ten days. Once the books came back that square measure unfinished from the day of imprisonment, to place them needed safe place within the library. The supplying drawback is also major drawback for the smaller libraries. Several countries have prompt numerous strategies to store the came back books however in Indian scenario the libraries ought to be ready themselves which can be higher possibility for them. Some alternatives are: Reserve the particular a part of the library for store the came back books, prepare them as date of come and within the same manner take away the books once quarantine amount and shift to the stack space. The library will be use memory device if needed. give access to few staffer in such store space. Make sure that the PPE ought to be provided to such staffer. Even one will consider moveable storage solutions as adopted in America.

C. Access of books within the library

The following possibility have prompt by totally different countries: No any user ought to accessible the library books because the Netherlands followed, solely librarians themselves ought to serve this sort of service (as in Republic of Slovenia and Portugal) (IFLA, 2020). Some libraries have prompt victimization of self-service machines to avoid human interaction.

D. Maintain Social Distancing to Delivery library Services

The shut physical contact is that the major reason behind catching the wreath virus, and solely thanks to avoid the virus is 'social distancing' – keeping a secure distance between 2 persons so as to cut back the risks of COVID nineteen from one person to a different. The suggested distance dissent from country to country however seems to not be below one meter i.e. regarding 3-4 feet, and quite which will be higher.

E. Limit entry of users once

The library has given range of person's access the library (maximum) at any time the more drawback arise what quantity time an individual will pay within the library? Limiting the time of the accessed persons is extremely vital issue to distribute the library services to the most persons. The seating arrangement of the library ought to be modification, solely restricted seats ought to be created obtainable, and i.e. one person per table and remainder of the chairs ought to be far from the library until things address the first position. That may be maintaining the social distancing by default within the library. The entire slot to tend to each accessed person is going to be half-hour in an exceedingly day for pre-booked and allowable person.

F. comes of physical material

Any physical things came back since the closure of libraries on March twenty third (e.g. by book drop or as a part of the delivery service) square measure subject to a seventy two hours quarantine. things ought to be placed in an exceedingly separate space if doable in boxes sealed with date marked on the day and time they're came back for the seventy two hours quarantine amount. Once moving materials, hands ought to be washed with soap and water.

Conclusion

With response to the COVID-19 epidemic, most of the libraries of the planet like library, faculty libraries, faculty libraries and university libraries are closed. And or so ninety eight countries have closed their national libraries. Republic of India declared total imprisonment at national level when twenty second March 2020 to interrupt the spreading of COVID-19 epidemic. Afterward the method of removing the restrictions was started step by step. Reopening of libraries may be a massive challenge to library professionals. We've got to shield library assortment, library workers and library users from this COVID-19 epidemic, for that we've got to follow preventive measures to forestall the COVID-19. This article states preventive measures ought to be applied in libraries to shield workers, users and library resources from COVID-19 epidemic.

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11. Use of Video as Teaching-Learning Device

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Abstract

Covid 19 Situation Can Be Considered Watershed Event In The History Of Mankind. We Are Definitely Entering Into The New Era Of Post-Corona. The Experiences That We Have Passed Through Or Still Passing Through Are Going To Certainly Shape The World Of Tomorrow. The Field Of Education Connected With Self-Enhancement, Skill Development And Capacity Building Has To Incorporate These Changes. The Emerging Changes Can Be Voluntary, Forcible, Circumstantial Or Permanent In Nature. The Paper Takes an Overview Of The Emerging Tool In The Post Covid Era I.E. Video.

Introduction

One Cannot Say That The Education Scenario Is Going To Change Only Because Of Covid 19 Scenario Only. The Process Was Already Set In. Digital Or Online Education Was On Rise For The Last Three Decades. Lockdown Has Only Speeded Up This Process. Covid 19 Has Generated The Fresh Perspective Of Connecting At The Global Level. Presently Higher Education Sees and Handles the Students with Specific Features. Generally Referred As Z Generation They Are Marked By Their Comfort In The Usage Of Digital Technology. They Are Comfortable With Internet And Social Media.

Methodology

The Study Explores The Tool Of Video From The Point Of View Of Learning. The Attempt Is Made To Capture The Changes That Had Taken Place In The Last One Year Following The Outbreak Of Covid 19. One Has To Note That The Process Of Change In The Learning Process Is Still Going On And Is Too Complex To Predict The Final Culmination Point As This Would Largely Depend On The Spread And Turn Of The Pandemic At The Global Level. The Observations Of This Paper Are Based On The Personal And First-Hand Experience Of The Researcher Combined With The Local And Global Trends And Readings. Though The Responses Of The Learners Is Not The Focus Of The Paper, The Study In The Subtle Way Captures This Point Too.

Z Generation

India Has 200 Million Children Below The Age Of 18, And 34% Of Them Belong To Urban Areas. They Have Reached Adulthood In The Twentieth Century. Generation Z Born After 1995 Has Officially Entered The Scene And Sends Massive Shock Waves Through The World Of Education. Generation Z Grew Up During The Most Dynamic Period Of Technological Advancements In Human History And Have Emerged As The Major Game Changers. Each Of Them Is Being Reared Or Pampered By Their Parents As Each One Is Unique. This Is The Generation Which Does Not Know The World Where A Smart Device Has Been Outside Of Arm's Reach. They Are Born And Brought Up With Technology. They Are Early Mobile Adopters, Comfortable In Messaging, Expect Nonstop Connectivity, And Expect Content As Per Their Requirements. It Is The First Generation To Have Been Born After The Popularization Of The Internet. That Is Why Many Of The Member Of Teaching Fraternity May Have Observed And Experienced Difference In Handling The Students In The Last Decade. This Generation Has Been Challenging The Way Learning Happens In Higher Education. Simultaneous Technological Advancement And Booming Social Media Have Created The Need For The Change In The Learning Processes And Technologies.

Post-Covid Scenario

The World Is Experiencing Large-Scale Social And Behavioral Changes In Response To The COVID- 19 Pandemic. These Changes Have Caused A Fundamental And Profound Shift In The Way We Conduct Our Lives, Which Could Have Both Positive And Negative Effects On Our Lives. Corona Has Produced The Feeling Of Insecurity In The Education System. The Need To Function, Both Socially And At Work, While Sheltering At Home And Social Distancing Has Led To The Widespread Realization That Online Education Is The Only Viable Option For Millions Of The Learners Who Want To Continue Their Studies In These Difficult Circumstances. The Pandemic Has Forced A Sudden Shift To Online Instruction. This Has Opened And Speeded Up The Evolution And Possibility Of Greater Use Of The Digital Tools. Physical Or Offline Teaching Requires Technological Set Up And Tools For The Use Of The Videos. However, Online Or Digital Learning Makes It Possible To Include Videos Inherent Part Of The Teaching. No Separate Set Up Is Not Required. Even Much Technical Expertise Is Not Needed For The Use Of Videos.

Videos

Engagement Of The Students In The Learning Process Has Emerged As Major Challenge In The Present Times Due To The Huge Explosion In Information Technology. The Span Of The Concentration Has Decreased Tremendously Due To The Easily Available And Accessible Digital Images. This Has Necessitated The Development Of Specific Digital Tools.

Teachers Can No Longer Keep Technology Outside Classroom. The Best And The Most Creative Solution In This Scenario Therefore Is To Blend Creatively Technology As Our Most Powerful And Engaging Tool.

Video As One Of The Most Distinct Virtual Learning Mediums Capture And Present Information And Offer A Sensory Learning Environment. This Enables Learners To Understand More And Retain Information Better. The Influence Of Digital Videos On Our Everyday Culture Is Incontestable. Today's Technology Has Given Gen Z-Ers An Ubiquitous Degree Of Connectivity Among Themselves And With The Rest Of The Population Which Makes Generational Shifts More Important And Speeds Up Technological Trends As Well. The Familiarity And Comfort With The Format Of The Videos Has Been An Important Factor To Include It Largely In The Education System. Videos As Teaching Device Can Be Looked From The Following Points:

- Videos For General Purposes
- Videos Purely Made For Educational Purposes
- Propagandist Videos
- Videos Of Contemporary Relevance
- Videos As Creative Exercise

Videos Make Learning Process Interesting. But At The End Of The Day It Is The Tool And Not The End Itself. It Cannot Replace Live Experience And Physical Learning. Videos Can Best Be Used For The Topics Where Verbal Explanation Turns Out To Be Of Limited Use. Certain Topics And Themes Remain In The Memory And Can Be Best Understood By Visuals. Post Covid Situation Has Forced The Teachers And Students To Remain Restricted To Their Homes. Keeping This Frame, Videos Can Generate Interesting Connections And Discussions In The Learning Process. Certain Kinds Of Subjects, Particularly Things That Involve Algorithms And Details Such As Programming Video-Based Asynchronous Teaching Can Have A Very

Beneficial Effect Compared To Classroom And Video Conference Teaching, In Which Students Can Skip The Video At Any Point To Make Sure They Have Got It Right Up To The End.

General Purpose Videos Can Be Useful For Enhancing Learning Experience. Educational Videos Can Enrich Teaching; Teacher's Explanation And Guidance About The Video In The Classroom Or Online Context Can Put The Points In Proper Perspective. Students Today Are Finding Educational Videos Useful Tool For Learning Everything: From Basic Skills - Like Changing A Tire - To The Latest Dance Move. Propagandist Videos Have Their Own Utility In The Sense Of Bringing About The Different Orientations And Perspectives Of The Discourse. Videos Of Contemporary Relevance Update And Connect The Issues In The Existing Context.

In The Era Of Social Media Making Of Videos Has Expanded To Tremendous Proportions. You Tube And Similar Other Video Uploading Sites Have Been Great Booster In The Acceptance And Popularity Of Videos In The Education. Videos Are Used In The Learning Process Where Teachers And Students Are Digitally Connected On The Links. Another Interesting Dimension That Is Emerging Is The Use Of Video As Post Which Can Be Referred At The Convenience Of The Learners. Thereby Videos Are Introducing The Element Of Comfort In The Teaching Learning Process.

In The Post Covid Situation Video Is Emerging As An Important Tool To Cater To Learning Differentials. Videos Provide Comfort And Space For The Learners To Learn At Their Own Leisure And Speed. Videos Open Up An Interesting And Parallel Line Of Communication. Considering The Point That The Teachers Are Not Able To Capture Physical Reactions Which Were Obviously And Easily Available In The Physical Classrooms In Pre-Covid Education System Videos Come To Rescue Of The Teachers. Teachers Will Also Discover That Putting Work Into Videos Which Can Be Used Repetitively Can Be A Time Saver. Many Of The Universities And Colleges Have Launched Their Own Channels. This Has Opened Up The New Vista Of Communication. Students Are Also Creating Videos As Part Of Their Assignments. These Become Important Learning Resources In The Post Covid Era.

Conclusion

Diversion Of This Activity For Learning Has Great Potential. Specifically Certain Topics Need Audio-Visual Presentation. Videos Can Generate Experience Which Can Be Equivalent To The Physical Presence Of Teachers. They Can Be Included In In-Person Instruction. Several Of The Teachers Have Experienced Increased Levels Of Performance From Students After

Converting The More Specific And Technical Parts Of Their Courses To Prerecorded Video. Overuse Of The Videos Can However Result In Monotony And Less Attentiveness Towards Them.

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12. Analysis of Impacts of Working from Home on Teachers in Post Covid-19 Situation Using Best Worst Method

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Abstract

The feasibility of working from home is related with several occupations. Online teaching has changed all components of learning and teaching of entire education structure from primary to university level all around the world. However, It has been realized that factors affecting teachers working from home need to be identified and evaluated. The present assessment work is to compute relative weight age of the factors affecting teachers working from home using newly developed Multi Criteria Decision Making technique 'Best Worst Method'. Total six factors affecting teachers working from home have been identified 'Better Work Life balance', 'Comfortable Location Working', 'Saving of travelling time', 'Saving of workplace expenses', 'Practical Demonstration Tediousness', 'Much Electricity Internet Expenses'. Further Best Worst Method (BWM) is chosen to rank the factors affecting teachers working from home. The resultant will be instrumental for the strategy creators for designing influential plans and tactics to tackle with factors affecting teachers working from home.

Keywords-Best Worst Method; Work from Home

1. Introduction

There are the numerous aspects of post-COVID-19 influences over the different phases worldwide [1]. Many teachers who are able to work from home are those who rely on technology. Online teachers are supposed to have a specific set of competencies [2]. The multidimensional effects of the COVID-19 have been observed in almost every sector across the globe. Some sectors have faced unprecedented losses because of social distancing but few sectors have adapted to digital platforms successfully [3]. Online education will be critical for the higher studies [4]. Numerous teachers who are capable to work from home are those who are

likely to be better paid. Considerable work has been done to check the feasibility of online classes for various parameters. Studies have identified critical issues affecting insights of online learning such as pedagogy, technology and communication [5]. The evidence based data have been summarized regarding adaptation in the post- COVID-19 situations[1]. A number of studies suggested the importance of the support of educational institutions to actively improve the results of online learning [6].

Literature is deficient in case of dealing with the factors affecting teachers working from home. Moreover, the past related work on online learning is hardly vocal about the critical analysis of competency-based teacher learning pattern [7]. Therefore, it is required to address the factors affecting teachers working from home. Thus the prime objectives of the current work are the analysis of factors affecting teachers working from home. Literature review along with experts' opinions has been used to identify factors affecting teachers working from home in Indian perspective. Further, Best Worst Method has been identified appropriate to analyze the Issues and Challenges of Online Teaching in Indian perspective.

Paper is settled as: critical reviewing of concerned literature is done in Section 2. factors affecting teachers working from home are recognized through extensive literature review and provided in Section 3. Section 4 shows the presented method of current work. Section 5 covers data assessment and final results. Finally, concluding statements are communicated with possibilities for future.

2. Review of relevant Literature

Martin (2020) reviewed hundreds of articles from several online sources to much concentration on the student domain. They highlighted an opportunity for the field to clarify terminology concerning online learning research, particularly in the areas of learner outcomes[8]. Berube et. al. (2020) observed that the low-wage and low-skill employees are very limited in their ability to work away from the physical location of their work. They further reported that several teachers who are competent to work from home are those who are with greater occupational skills. [9].

The policy makers are supposed to ensure the access of workable communication tools, better digital educational exposure and boost technology-assisted education for learners to manage and make the education structure better[10]. Agus Purwanto et. al. (2020) identified the information about the advantages and disadvantages of working at home (Work From Home).

They further discussed the disadvantage of WFH as it can lose work motivation to bear electricity and internet costs, can cause data security problems[11].

From literature review, it is clear that factors affecting teachers working from home are important from the point of view of academics, but a complicated task to be dealt. Therefore, it becomes essential to recognize factors affecting teachers working from home. Next section addresses the factors affecting teachers working from home.

3. Identification of factors affecting teachers working from home

Numerous databases (presented in conferences/papers published in journals) had been critically reviewed and the discussion had been conducted with the teachers who have been working from home. On that basis, to formulate the mission of analyzing most critical factors affecting teachers working from home, total six factors have been recognized. The key factors include 'Better Work Life balance', 'Comfortable Location Working', 'Saving of travelling time', 'Saving of workplace expenses', 'Practical Demonstration Tediousness', 'Much Electricity Internet Expenses'. These Critical factors are shortlisted from literature review and validated from experts' views.

Table 1. The Factors Affecting Teachers Working from Home

Factors affecting teachers working from home	Abbreviation
Better Work Life balance	BWL
Comfortable Location Working	CLW
Saving of Commuting Time	SCT
Saving of Workplace Expenditure	SWE
Practical Demonstration Tediousness	PDT
Much Electricity Internet Expenses	EIE

3.1 Better Work Life balance [BWL]

Now the lines between home and work are blurring, organizations are required to frame policies to make 'work from home' sustainable in the long run. In fact, a majority of teachers expressed that flexible work options that allow for a better work-life balance.

3.2 Comfortable Location Working [CLW]

A potential factor of working from home is having access to a broader range of job opportunities that aren't limited by geographic location. Remote work is instrumental to avoid high-rent areas, particularly if require living in a city with a high cost of living.

3.3 Saving of Travelling Time [SCT]

Commuting is a huge expense for teachers, particularly those in highly-dense metropolitan areas. According to a survey by leading co-working space provider organization, the time saved by an average working professional in India, translates to time worth forty four additional working days in a year while working from home.

3.4 Saving of Workplace Expenses [SWE]

Work from home saves the average teacher a considerable amount when compared to academic institute, according to numerous studies. The average Indian spends some amount on cafeteria lunches/refreshments. Working from home means teachers can drastically reduce expensive cafe spending.

3.5 Practical Demonstration Tediousness [PDT]

Teachers express huge emphasis on the laboratory activities for the students in online studies. Teachers demand the demonstration technologies in practical. One resembling concern is the data collection for major research projects in post graduation doctoral research activities.

3.6 Much Electricity Internet Expenses [EIE]

Work from Home consumptions comes from pocket of the teacher. Fixed costs of personal computer, printing device, stationary etc. with running monthly expenses for additional eight-ten hours every day consumption of electricity for lights, fans, heater, air-conditioning are required to be considered.

4. Methodology: Best Worst Method

In the present work a newly developed MCDM method by Rezaei, best worst method, has been utilised [12]. On the basis of paired decisive vectors, the Best criterion and the Worst criterion, the best worst method proves itself very instrumental. The weights of the criteria are determined by solving a linear [13] or a nonlinear model. The ability of BWM to obtain more consistent results due to its structured pairwise comparison system makes it much employable [14]. Compared to the popular pairwise comparison based MCDM method AHP, it allows to determine several reliable results according to previous analyses[12]. The steps of the BWM have been shown in Figure 1.

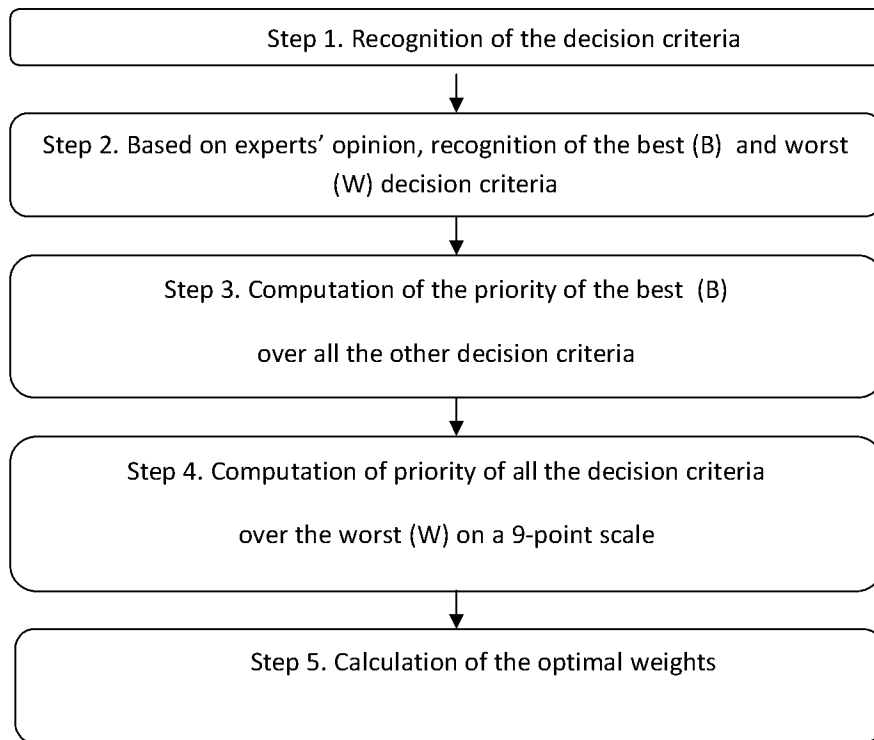


Figure 1 - Steps in Best Worst Method

5. Data Analysis & Results

For validation of our proposed model, a group discussion with teachers, who had been working from home, was performed. Following is the formation of the priority of the best criteria over the others on a 9-point scale as shown in table 2

Table 2- Priority of the Best Criterion (B) Over All the Other Criteria

THE BEST	BWL	CLW	SCT	SWE	PDT	EIE
SCT	9	3	1	5	2	7

Following is the formation of the priority of all the decision criteria over the worst criterion (W) on a 9-point scale as shown in table 3

Table 3- Priority of All the Decision Criteria Over the Worst Criterion (W)

THE WORST	BWL
BWL	1
CLW	4
SCT	9
SWE	3
PDT	6
EIE	2

Final Values of The Optimal Weights have been Calculated And Tabulated In Table 4.

Table 4- Weights of All the Factors Affecting Teachers Working from Home

Ξ	0.036
Relative weight of Better Work Life balance	0.043
Relative weight of Comfortable Location Working	0.152
Relative weight of Saving of Commuting Time	0.420
Relative weight of Saving of Workplace Expenditure	0.091
Relative weight of Practical Demonstration Tediousness	0.228
Relative weight of Much Electricity Internet Expenses	0.066

Table 4 depicts the priorities calculated using the Best Worst Method and the ranking of the various factors. It has been found that 'Saving of Commuting Time' is the most important factors affecting teachers working from home, followed by 'Practical Demonstration Tediousness' and 'Comfortable Location Working'.

5. Conclusion

This research work has developed Best Worst Method based multi-criteria decision making model for analysis of Issue of Online Teaching. Total six factors affecting teachers working from home have been identified 'Better Work Life balance', 'Comfortable Location Working', 'Saving of travelling time', 'Saving of workplace expenses', 'Practical Demonstration Tediousness', 'Much Electricity Internet Expenses', have been compared and ranked.

Future scope of work can be the development of the similar model by applying other multi-criteria decision making techniques like TOPSIS, ANP, DEAMATEL methodology with some appropriate statistical tool like Structural equation modeling technique and their results may be further compared.

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13. Economic Opportunity: An Incredible Observation over the Post Covid Era for Developing Indian Economy

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Abstract

The smooth and dynamic economy is very important for the actual development for developing country. India is home to 18% of the world's population. While on the path of development, epidemics like Corona Virus spread all over the world. The whole economy collapsed from. As a result, cyclones hit some parts of the country, especially in Maharashtra. As a results of that situation happened, even ordinary citizens living in rural areas as well as people with high standard of living. Too many employer lose their employment, infrastructural projects close down as well. At a time when India's economic relations with other countries are closed, negative roles remain. Along with development, employment, education and health were also affected. The ordeal was caused by a corona virus. During this period, changes in government policies became important. After pandemic and natural disasters, however, the country's economy is now recovering. This research paper researcher studied the key factors mentioned in the India ideas summit 2020 for the smooth running of the economy. Researcher focus on important points on account of global optimism towards India.

Keywords -Resilience, Optimism, Opportunity, Efficiency, Diversification, Stability, Recovery

Introduction

The government is trying to give a new direction to the economy that has collapsed due to the Covid-19 pandemic around the world. But the government's efforts need to be successful, both nationally and internationally, even in rural areas also. While, everyone with a higher standard of living than the average person had to endure the effects of the pandemic. However, after the Covid-19 pandemic, many doors were opened for India to strengthen its economy. Positive changes were made in a number of policies to move the agrarian Indian economy towards self-reliance for rural development. These positive changes had an positive impact on

the economy. For the purpose of improving domestic efficiency over the country, prime minister express their opinions in India ideas summit 2020.

Objectives of the Study

- To express various opportunities after post covid-19.
- To focus on India ideas summit 2020.
- To discuss about key factors of economic growth.
- To elaborate scope of self reliant campaign.
- To represent India's people economic balancing criteria.

Research Methodology

This research study is descriptive in nature. For the purpose of collecting information research per use secondary data from newspapers, electronic media, books, journals, YouTube etc. Also primary data used to collect information on account of post covid 19 situation from various professor by interweaving.

Why India is being considered as a country where optimism attracted toward India?

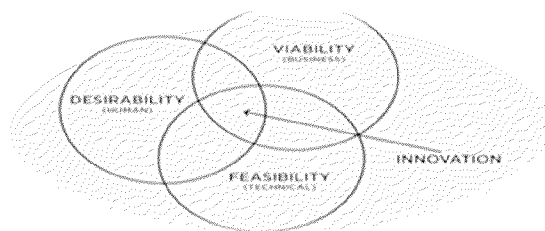
Recently, the bright future of both the nations was discussed at the Global Summit 2020 held between India and the USA. In it, the whole world is looking at India as a fast moving towards recovering economic. This will create a perfect opportunity looking towards development. There is also opportunity for the foreign investors to invest in Indian Business. After accepting LPG policy, in the last six years efforts have been undertaken towards who make the Indian economy more open and reform oriented. Opportunities coming from the various factors like infrastructure, finance, health, service etc. With help of following, we can explain the factor which is responsible to generate economical opportunity to balance the trade.

Global Optimisms attracting towards India Energy sector	Human centric approach
	Self reliant India scheme (AtmaNirbhar Bharat)
	Attractive economic destination
	Healthcare
	Energy sector
	Civil aviation
	Digital media
	Finance and insurance

1. Human Centric Approach

From the point of view of human security, if there is a crisis in the future, Indians have a good skill of how to deal with the situation at that time. During the lockdowntime, when many

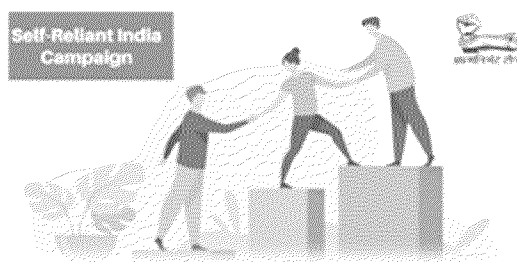
people who were specially facing unemployment, many small and big entrepreneurs preferred to start small and big businesses as a means of earning money.



As a result, the Indian economy grew faster, as Indians had better financial planning skills, which reduced unemployment. The Indians showed readiness to seek protection from external threats. And they were ready to build economics resilience against external shocks.

2. Self reliant India scheme (atmanirbhar Bharat)

Today, every family is running their own small business to meet their daily needs through policies like the Self-Reliant India Campaign implemented by the government to maintain the right balance of the economic situation.

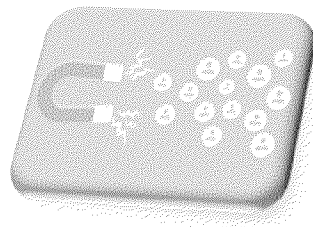


For that, they do not have to depend on imported goods. Under the Atmanirbhar Bharat Abhiyan, the government implemented a scheme to provide small loans in the form of grants for business development. This will lead to improve stronger domestic economic capacity. Efforts to strengthen the economy by partnering with various countries in international trade began after covid-19.

3. Attractive Economic Destination

In pre Covid China was a country with a good foreign direct investment. However, after the real situation of China's economy came to light, developing nation like USA, Vietnam is turning towards the India, Taiwan, Vietnam etc. by canceling its partnership agreements with china. Moreover, 18 per cent of the world's population living in India, if the basic needs and

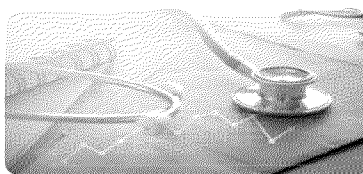
facilities like health, education etc. of the people are met as per their demand, it will sure to help the GDP growth of the entire country.



Earlier Covid-19, India had reached up to 49 billion dollars in foreign direct investment, especially at the time, China was the world's second-largest foreign direct investor, with a curfew imposed from April to June 2020 in India. But even in such a period of lockdown, India set a record by participating in FDI of at least 20 billion dollars. New economic reforms waves also attracting to foreign investors towards India, due to reduction in corporate taxes up to 22%, appropriate labour law, relaxation in MSME, introducing new packages etc.

4. Healthcare

After the Post covid-19 situation, agricultural production as well as ancillary products such as fisheries, organic production attracted more and more foreign investors. In terms of organic production, India is expected to generate 0.5 trillion dollars by 2025. On the other hand, Indians are taking more care of their health, after coming out of the pandemic.



That is why India's healthcare sectors are growing faster @ 22 per cent per annum. Medical Science, medical technology, diagnostics are growing in a faster way. India and US have already built a robust partnership in the Pharma sector to achieve scale and speed.

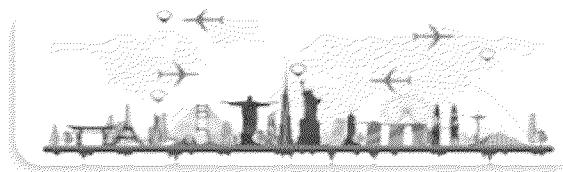
5. Energy sector

The Indian economy is rapidly shifting from an oil based economy to a gas based economy. India is developing technology to extract shale gas from its own shale gas reserves.



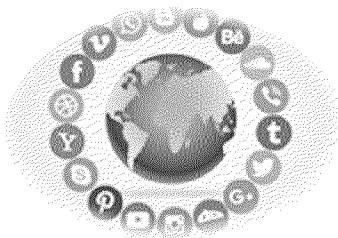
As a result, countries that are already producing shale gas will be willing to invest in companies in India.

6. Civil aviation



The number of people traveling by air has more than doubled in the last eight years. Since then, it has been growing. For this, the maximum demand for aircraft began to increase. So the days of reaping in aviation companies are coming. Top Indian private airlines plan to include more than 1000 new aircraft with this decade. This will also attract multinational companies to invest in such sector.

7. Digital media



India has the highest number of mobile, internet users. As the Government of India has taken developmental steps towards Digital India, more and more revenue is being generated through digital media. Demand for this specialty has grown significantly as a result of recent corporate scandals. E commerce is also part to push Indian economy growing faster after post pandemic situation.

8. Finance and Insurance

As per the India ideas summit 2020, These various opportunities have been made available to the country through the Department of Finance and Insurance. Foreign direct

investment in the insurance sector increased to 49 per cent. Now 100 percent FDI is permitted for investment in insurance intermediaries. Many new products were launched in the field of insurance in terms of development and social protection of the country. With the success of Ayushman Bharat, our health assurance scheme, PM FasalBimaYojna, our crop insurance scheme and Jan Suraksha or social security schemes, the government has laid the ground for quick adoption and acceptance of insurance products. After covid-19, the insurance sector is being looked at as a means of earning a fixed income for a long period of time. International Monetary Fund (IMF) express the Indian economy as major fastest growing economy in year 2020.

Conclusion

As India adopted flexible foreign policy to recover after post pandemic situation. As a result of international Trade here a researcher has concluded that US is Ken strategic and multifaceted partnership with India in the Indo Pacific region. It's also wanted to involve smaller powers like Japan, South Korea and Australia. Improving the post-Corona economic situation requires positive participation of the entire population by boosting production along with India's domestic income. If the policies adopted to boost foreign investment are properly implemented, India will be able to easily offset the adverse effects of the Corona epidemic.

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14. Gender Based Research on Impact of Virtual Teaching in Higher Education during Covid -19

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Abstract

The influence of COVID-19 has seen in almost every field of work, especially high on teaching pedagogy. The pandemic has rocked the higher education environment worldwide, with higher education institutions' reactions to the pandemic usually grouped into 3 categories: preserving classroom education with social distance; developing hybrid models (mixed learning, student limitations in campus) or delivering instructions through online mode. The outbreak evokes the need for emergency remote learning, which leads to multiple challenges & benefits to the instructor and learners. This study investigated gaps in online education interpretation between male & female students of higher education adopted in emergency remote learning. This research paper provides insight into the impact of online education on male & female students' health. The attempt made to investigate the gaps in men and women's perception between practical and theoretical topics during online higher education. Data is collected from 250 students in higher education institutions through Randomized sampling.

Keywords- Online education, Covid-19, blended learning, emergency remote learning.

I. Introduction

The lockdown imposed due the COVID-19 pandemic had triggered a significant disturbance in the manner in which conventional universities offer their courses. Contrary to previous shifts from face-to-face education to mixed, online, or floppy classrooms, moves to emergency teaching – a temporary transfer from teaching to a remote alternative distribution mode due to disaster situations – come unexpectedly and without a timetable (Pradas, Garcia, Pelaez & Prieto 2020). In India, the prevailing modality of education in all universities is face to face learning, but currently almost 25 percent of higher education students in the country are enrolled in the open & distance learning program (distance education bureau).

State of the warning requires implementation of a full lockdown by government authorities pressuring all face-to-face universities to switch to online teaching by trying to

monitor virus expansion, requiring a transition in instructional approaches and infrastructure to accommodate them to distance learning.

Covid 19 has been declared by the World Health Organization as a pandemic leading to the suspension of all face to face school programmes. This suspension took place just four weeks into the second half. The pandemic's effect was much more drastic, with over 98 per cent of undergraduate students. Usually unprepared, the requisite revisions and adjustments had to be made by higher education professors overnight.

Patra & Sahu (2020) examine the digitalization process, development and difficulties in online teaching and learning. Digitalization has dramatically changed the world's social and economic practises. As a result of digital transformation, online teaching and learning in particular also arisen. In teaching and learning approaches, online education has a pedagogical turn. The education sector is adopting online education system and virtual classes are the best solution to protect the students from spread of corona virus.

Suppose we observe the improvements caused by COVID-19 in teaching and learning under the prism in remote education in emergencies. In that case, it can be argued that much, or at least some of the results of current online learning studies, may not be relevant to this case. But it's also accurate that teachers have not taken decisions to offer their instruction that vary from intervention functionality (Means, Bakia, & Murphy, 2014) or learning interface choices (Hodges et al., 2020) while preparing, developing, and executing an online course. Admittedly, some of these choices, such as the broadness (full programme, course, part of the course, short episode) or modality (mixed, semi-mixed) impose a pandemic condition and cannot really be selected, but teachers have a little discretion to determine the remaining ones (e.g. online communication synchrony, student-instructor ratio, role of summative assessments, etc.).

In light of these complexities, this thesis aims to address three key research questions:

- **RQ1:** Are there any differences in male & female with the overall level of understanding of online education in higher education adopted as emergency remote learning?
- **RQ2:** Are there any differences in male & female of student's health due to online education in higher education?
- **RQ3:** Are there any differences in male & female students' understanding between practical & theoretical subjects during online education in higher education?

II. Literature Review

Advancement of technology provides diversified services in various sectors of the economy like banking, insurance, railway, airline, hotel & tourism industry. Also, it gives emergence to a wide range of online learning techniques in the education sector. Online learning has become an integral element of education and is to provide unique learning processes. However, in several nations, teaching has started to move from conventional or face-to-face school environments to online learning environments. This transition took place in all areas of education, and adopted through various techniques of teaching nowadays including Edmodo, Zoom, Blogs, WhatsApp Group, Email, SeeSaw, Sway, ClassDojo, Show My homework, SurveyMonkey in-app surveys, and SmartSurvey described. Learning can be described as a method to gain new experience, insight, talents, understanding, beliefs, desires, and knowledge. Brown (2008) states that learning involves gaining expertise or skills through research, practice, or organization. However, Houwer, Holmes, and Moors (2013) demonstrate that education is characterized as behavior changes resulting from experience or mechanistically changes in the organism resulting from experience. The emergence of the ICT is blurring the borders of the school or the campus. As has been said, the time and space borders have vanished (Kulandaiswamy, 2011). In its different forms, online education has grown worldwide because of the merged emerging technology, global Internet acceptance and increased demand for a regularly educated workforce in the ever-shifting digital economy. Online education will also become widespread by 2025. Palvia et. all (2018) inferred national trends affecting online education quantity and consistency. These considerations include industry (business); municipal, state and federal governments; national legislation; ICT ability; the dissemination of Internet/mobile technologies; and wealth and digital divides. We have implications for online education for countries and international organisations. While online learning studies and acceptance have improved, Martin et all (2020) examine that mixing synchronous and asynchronous internet learning will theoretically minimise certain asynchronous online learning difficulties alone, including the lack of immediate connectivity, culture, engagement and audiovisual communication. (Hu & Grambling; 2009; Tsai, 2009; Zarisky & Styles, 2000) described Online learning strategies as the capacity of students to analyze and monitor their learning across a wide variety of cognitive, metacognitive, resource management and affection strategies to meet online learning goals. Affection during online learning is also a factor

contributing to the accomplishment of online learning goals. Affective online learning practices are students' impressions of the gains they derive from online learning. Shih (2005) evaluated in his research about Taiwanese EFL learners' online learning strategies. Good students have adopted a broader range of techniques and used the metacognitive, analytical, and rational approach more often than failed students.

Research Gap

In earlier studies Patra & Sahu (2020) have consider the effect of digitalization online learning as well as the benefits & challenges imposed through online education. Palvia et all (2018) described the factors like government laws, mobile and internet access, industries impacting online education on national & international level. Pradas et all (2020) investigated the effect of paradigm shift from face to face to online education on academic performance of students and also study the acceptance level of instructor. Shamsaee et all (2020) judging the extent to which virtual education influences knowledge literacy competency in order to make evidence-based nursing practise a reality. Whereas Robbins (2020) has done an investigation of online educational approaches in language learning in which participants in two asynchronous forums are compared with each other.

(Bozkurt & Sharma, 2020) shared a narrative on teaching perspectives during the COVID-19 pandemic. Improved planned instruction, especially during an emergency, could decrease the teaching efficiency and the rapid re-engineering of the instruction distribution during the COVID-19 pandemic led to the transition from rolling classrooms to emergency remote online teaching. Most university departments were also assuming blended learning before the pandemic, as some of these institutions still used Moodle for the pandemic. In contrast, others introduced some additional features such as the video conference tool to make Moodle an entirely automated, remote teaching online. The newness of this storey helps correct these misconceptions and explicitly states that the method of distribution during the pandemic epidemic was an online emergency schooling, while it used a training design created for mixed teaching. This data contributes to scholarly study as it is well known in recent research that the way to teach was remote learning, while some people refer to it as online education (Adnan & Anwar, 2020; Chen et al., 2020)

This study investigated gaps in online education interpretation between male & female students of higher education adopted in emergency remote learning. This research paper provides

insight into the impact of online education on male & female students' health. The attempt made to investigate the gaps in men and women's perception between practical and theoretical topics during online higher education.

IV. Objectives of the Study

9. To examine the level of apprehension about virtual education concerning gender and class level in higher education institution as emergency remote learning.
10. To study the differences in the impact of online education on male & female students' health.
11. To analyze the gaps in men and women's perception between practical and theoretical topics during online higher education

V. Hypothesis

- H_0 1. There is no significant difference between the degree of satisfaction towards online education in male & female.
- H_0 2. There is no significant difference between in male & female of student's health due to online education in higher education.
- H_0 3. There is no significant difference between in male & female student's degree of satisfaction towards understanding of theoretical subjects during online education in higher education
- H_0 4. There is no significant difference between in male & female student's degree of satisfaction towards understanding of practical subjects during online education in higher education.

VI. Research Methodology

A descriptive sampling method was used to identify variances in preception about virtual education concerning gender. The study population includes students chosen by random sampling procedure from various colleges in Chandigarh and surrounding areas. Listed students belong to the Arts and Commerce stream. To gather the data, a questionnaire was framed and information was gathered and analysed using google forms. Data was analysed based on the response of 250 students.

Anova Test is used to compare the means of male & female students towards virtual education imparted during covid-19 in higher education instituions.

VII. Benefits of Online Education

Online teaching and distance learning addresses the demands of the rising population of students who choose to study at home without engaging in a conventional classroom. These students who cannot take a typical face-to-face course usually do not get access to a specific class or live in distant areas from which it isn't possible to fly to the university and practise in full time or others who usually choose to train individually. The minimum prerequisite for a student to enrol in an online course is easy computer access, internet connection, and the inspiration for the success of a simulated non-traditional classroom. Online courses provide excellent methods of teaching students that are not limited by distance or time and enable both teachers and students at all times to be accessible from everywhere. Because of the work done by all of the digital students, the freedom to access classes and courses from any device with Internet access are the key advantages of online learning 24-hours a day and seven days a week. Any of the main benefits of online learning are as follows. Living with many students, online learning is a flexible and appropriate route.

VIII. Data Analysis

Figure 1:- Number of Students In Different Class

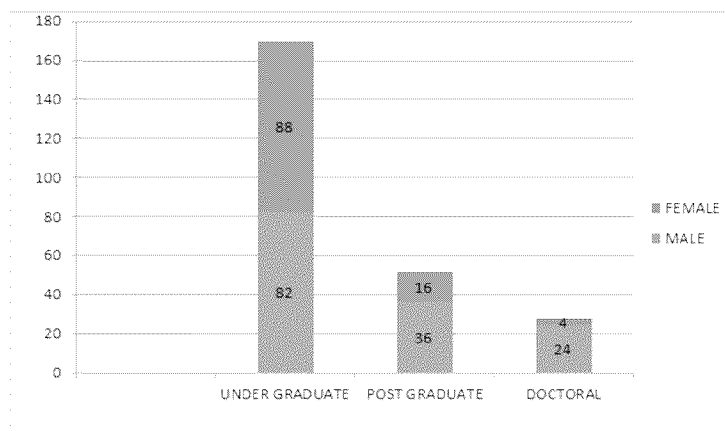


Figure 1 represents data of Under Graduate, Post graduate & Doctrate collected from 250 students. Responses collected from 68% under graduate students consisting of 82 male students & 88 female students. 21% students belongs to post graduate provides their response which consists of 36 male students & 16 female students and 11% of sample data is collected from doctrate students which consists of 24 male & 4 female candiditates.

Figure - 2 Percentage of Students Residing in Rural Areas & Urban Areas



Figure 2 represent 48.4% students who submitted their response belongs to rural area & 51.6% students belongs to urban areas. Consideration of locality is also a major part of concern because the rural areas & remote areas is facing internet connectivity issues in India which paly a important role in online learning.

Figure 3:- Number of Student Having Access to Device for Virtual Education

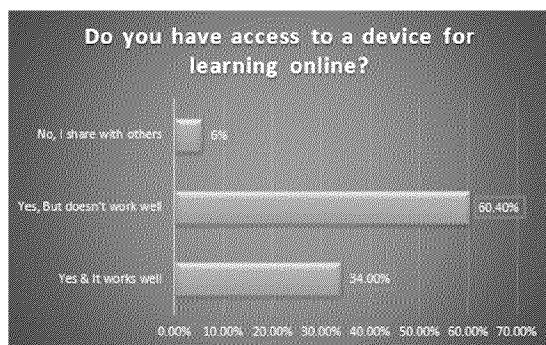


Figure 3 shows that 34% of students having access of device for emergency remote education whereas 60.4% students represent they are having access but that doesn't work properly. Only 6% students are those who are not having any device for continuing immediate implementation of remote virtual education adopted due to covid-19.

Figure 4- Type of Device Used by Students Amis Emergency Remoteeducation

TYPE OF DEVICE USED FOR ONLINE LEARNING?

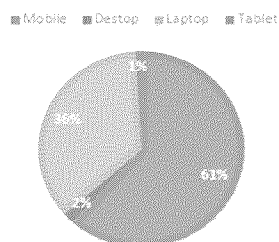


Figure 4 depicts the various types of devices used by students of higher education for their emergency remote learning. Out of which majority of students i.e. 61% are using mobile for virtual education, 36% are using laptops, 1% are carrying tablet & 2% students are using desktop for remote e- learning.

Figure 5-Level of Interaction with Instructor during Virtual Education

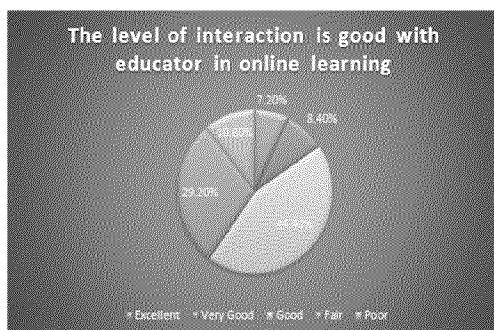


Figure 5 depicts that level of interaction with educator during emergency remote education is very excellent as per 7.2% students whereas 8.4% represent very good level & 44.4% is claiming good level of interaction. But 29.2% student’s states they are having only fair & 10.8% are claiming poor level of interaction with educator. It is important to know the level of interaction because it serves the basis of problem solving & doubt clearing during virtual education & leads to satisfactory student’s performance.

Figure 6-Level of Enthusiasm & Motivation of Educator during Virtual CLASSES

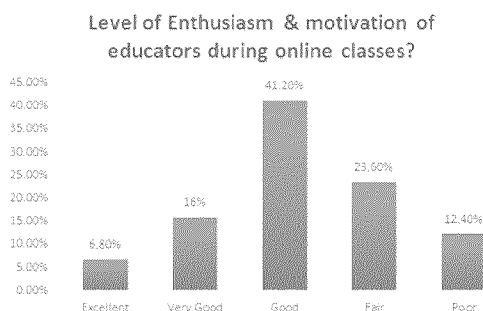


Figure 6 depicts that level of enthusiasm & motivation of educator during emergency remote education is very excellent as per 6.8% students whereas 16% represent very good level & 41% is claiming good level of interaction. But 23.6% student’s states they are having only fair & 12% are claiming poor level of enthusiasm & motivation of educator. It is important to know the level of enthusiasm & motivation of educator because if the educator shows the motivation & interest in topic taught by them then only students become keen to learn & boost up.

Figure 7- Engagement Techniques & Activities Used in Online Classes

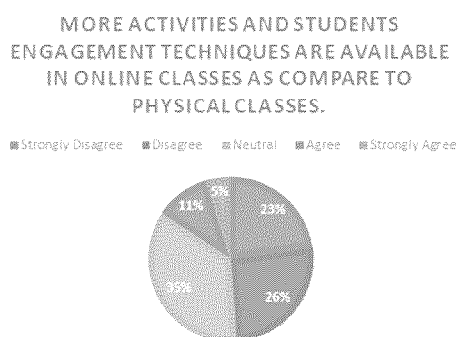


Figure 8 - Level of Understanding of Virtual Education

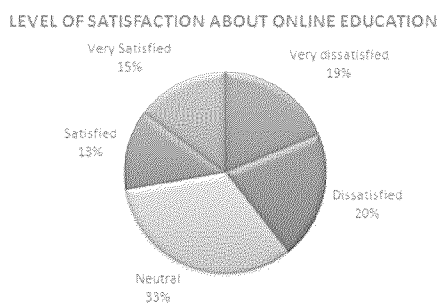


Figure 7 depicts that overall level of understanding of students of various subject taught by educator during emergency remote education in which 15% students are very satisfied whereas 13% represent only satisfactory level of understanding & 33% is claiming neutral level of understanding. But 20% students are dissatisfied with virtual education & 19% are showing very dissatisfied level of understanding.

Viii. Findings 1

Are there any differences in male & female with the overall level of satisfaction of online education in higher education adopted as emergency remote learning?					
	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
FEMALE	2	5	50	44	7
MALE	9	32	48	42	11
Total	11	37	98	86	18

Summary of Data			N	$\sum X$	Me an	$\sum X^2$	Std.De v.
	Treatments	Female	108	373	3.4537	1351	0.7659
		Male	142	440	3.0986	1516	1.0404
		Total	250	813	3.252	2867	0.9466

Result Details	Source	Between-treatments	Within-treatments	Total
	Sum of Square	7.7358	215.3882	223.124
	Df	1	248	249
	Means Square	7.7358	0.8685	
		F = 8.90703		

The f-ratio value is 8.90703. The p-value is .003125. The result is significant at $p < .05$. Therefore null hypothesis is rejected which shows there is significant difference between understanding level of female & male students.

It is interpreted from the above table that the average overall level of satisfaction of virtual education of female students is better than the male students. Whereas it is clear from the analysis that the standard deviation of female students is less than male which shows more consistent performance in the term of level of understanding.

Finding 2: Health Issues

Are there any differences in male & female of student's Health due to online education in higher education?			
Health Issues	YES	NO	MAYBE
Female	51	33	24
Male	59	53	30
Total	110	86	54

Summary of Data			N	$\sum X$	Me an	$\sum X^2$	Std.D ev.
	Treatments	Female	108	189	1.75	399	0.7987
		Male	142	255	1.7958	541	0.7676
		Total	250	444	1.776	940	0.7799

Result Details	Source	Between-treatments	Within-treatments	Total
	Sum of Square	0.1285	151.328	151.456
	df	1	248	249
	Mean of Square	0.1285	0.6102	
		F = 0.21065		

The f-ratio value is 0.21065. The p-value is .646662. The result is not significant at $p < .05$. Therefore null hypothesis is accepted which shows there is no significant difference between health issues of female & male students.

It is analyzed from the above table that male students are observing more impact on their health due to online classes as compare to female students. Thus we can say that male are facing more health issues than female due to online education as compare to male students.

Finding 3-Theoretical Subject

Are there any differences in male & female student's degree of satisfaction towards understanding of theoretical subjects during online education in higher education?					
Theoretical Subject	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Female	5	24	36	38	5
Male	25	32	53	19	13
Total	30	56	89	57	18

Summary of Data	Treatments	N	$\sum X$	Me an	$\sum X^2$	Std.Dev.
		Female	108	338	3.1296	1158
Male	42	138	2.7394	59	1.171	
Total	150	477	2.908	17	1.1029	

Result Details	Source	Between-treatments	Within-treatments	Total
	Sum of Square	9.3397	293.5443	302.884
	df	1	248	249
	Mean of Square	9.3397	1.1836	
		F = 7.89058		

The f-ratio value is 7.89058. The p-value is .005365. The result is significant at $p < .05$. Therefore null hypothesis is rejected which shows there is significant difference between level of understanding for theoretical subject of female & male students.

It is interpreted from the above table that the average level of satisfaction of understanding towards theoretical subject during virtual education of female students is better than the male students. Whereas it is clear from the analysis that the standard deviation of female students is less than male which shows more consistent performance of female in the term of level of understanding for theoretical subject.

Finding 4 -Practical Subject

Are there any differences in male & female student's degree of satisfaction towards understanding of practical subjects during online education in higher education?					
Practical subject	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Female	18	21	46	18	5
Male	30	40	41	23	8
Total	48	61	87	41	13

Summary of Data			N	$\sum X$	Me an	$\sum X^2$	Std.D ev.
	Treatments	Female	108	295	2.7315	929	1.0731
		Male	142	365	2.5704	1127	1.1571
		Total	250	660	2.64	2056	1.1222

Result Details	Source	Between-treatments	Within-treatments	Total
	Sum of Square	1.5913	312.0087	313.6
	Df	1	248	249
	Means of Square	1.5913	1.2581	
		F = 1.26481		

The f-ratio value is 1.26481. The p-value is .261829. The result is not significant at $p < .05$. Therefore null hypothesis is accepted which shows there is no significant difference between level of understanding for practical subject of female & male students.

The result of present study reported that the average degree of satisfaction for practical subject during virtual education of female students is better than the male students. Whereas it is clear from the analysis that the standard deviation of female students is less than male which shows more consistent performance of female in the term of level of understanding for practical subject.

Ix. Conclusion

Online education is rising increasingly as states and districts create new online schools, and new classes and pupils are being added to current programs. The rise represents a widespread perception that online programs and courses can accommodate a diverse range of students and needs. This includes build options for small and remote school districts to give their students a range of courses and highly trained teachers. Allow students to combine high school and post-secondary opportunities . To help students get grades back in an alternate learning environment. They are providing individualized training and innovative opportunities for learning. Enables students to engage with students far outside their school or city borders. They were meeting today's millennial students' demands and aspirations.

Since much of the communication takes place through electronically written notes or shared files during online contact, people with poor writing skills may be disadvantaged in an online world. On the other hand, the need to almost type all on the keyboard allows the students to think about their answers, and by applying word processing, they become more skilled in writing. Both people should post messages under ordinary conditions so that each participant online has the same chance to add ideas or remarks. One of the critical consequences of this move is that the instructor or specialist would not automatically have an online profile.

Therefore, the authors of this paper know that any teacher who wants to preach to an online audience quickly gets to work out and do other things, as the lecturer cannot guarantee that the student listens and takes notes.

Another fascinating feature of online learning is that it will minimize discrimination and harm that could occur Face-to-face classroom environments. If there is nobody it intentionally indicates the age, ethnicity, racial origin, physical features, and disabilities of other learners in an online class setting are usually unknown to both participants and practitioners.

X. Suggestion

Taking into account the shortcomings of the sample, the researcher suggested for prospective researchers. 1. Future research will take samples and analyze the reliability of current results from schools also. 2. The present research studied physical & psychological degree of satisfaction only but future researchers can also consider the social dimensions & would work to know about the the impact of online and distance learning on student's bonds & relationship.

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15. Bio-Metric of COVID-19 Pandemic Infected Person Detection and Investigation: Non-Contact Temperature Infrasensing Assessment Device

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Abstract

We have made here the first attempt of Biometric system during COVID-19 pandemic infected human being detection through a non-contact temperature infrasensing assessment device. Because of today's need of high ceases to spread of COVID 19 pandemic. Normal Human being 37°C temperature serves to identify that the person authenticating is who he/she claims to be. Non contact temperature infrasensing assessment identification is becomes most popular technique due to its liability. In this present paper is provided main steps involve in biometrics is: Non contact Temperature Detection Recording, Image Formation, Image Processing and Image Matching.

Keywords-Biometric, Infrasensing, COVID-19, COVID-19 Pandemic, Temperature, Image, WHO.

1. Introduction

Biometric identification of COVID -19 pandemic infected human being detection through a non-contact temperature infrasensing elevated skin temperature screening kits assessment device is fast, easy-to-use of work out, precise certainty, trustworthy survive, low cost and WHO knowledge-based suggestions methods. Today's need of this type of biometric for reliable user authentication has been increased in awaken of innovative of heightened concern about the safety purpose and rapid advancement in daily routine work of academic, government sector, private sector. This biometric system is typical, simple low cost-effective solutions to limit the spread of the on-going COVID-19 pandemic. Most of the countries have shown that it is possible to reduce the spreading of the SARS-CoV-2 or Novel Corona virus or COVID-19 by implementing strong protective measures while trying to keep the economy going. One of those

biometric measures is the use of non-contact infrared thermometry temperature measurement to screen for elevated skin temperatures (EST) in the workplace[1]. Biometrics system contains physical science of recognizing an individual based mainly an image capturing of non contact temperature detection module. An image of non contact temperature capturing module refers to establishing identity based on the physiological and behavioral characteristics shown in Figure 1.1 (It is also known as authenticate traits and Identification) of an individual's such as normal human being temperature 37°C , face, tongue, iris, oxymeter etc that does acquire the raw biometric data of a person standing in front of this unique device.

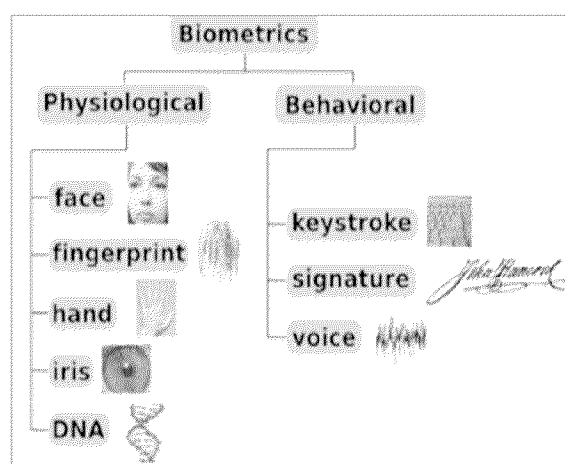
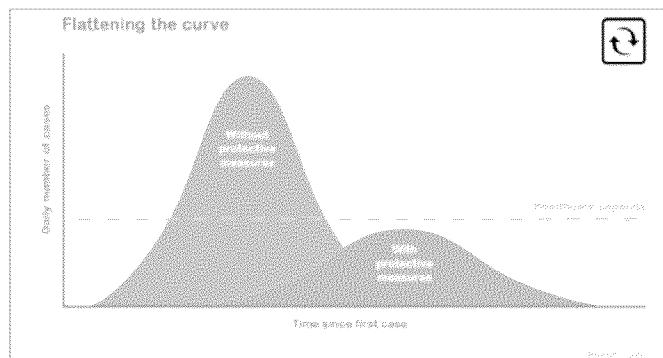


Figure 1.1 Classification of Biometrics Traits

Biometrics systems during the COVID-19 pandemic offer several advantages over traditional authentications schemes. This typical biometrics in COVID-19 pandemic are inherently more reliable than password- based authentication as biometric traits cannot be lost or forgotten in COVID-19 Pandemic; biometric traits are difficult to copy, share and distribute in COVID-19

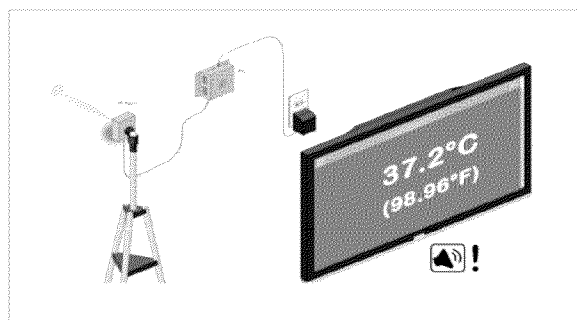
Pandemic; and that does require the person being authenticated to be present in front of device at keeping at particular safe distance (“DO Gaj Ki Duri and Mask Hai jaruri”), at the time and point of authentication. Hence non contact Biometric system during COVID-19 pandemic - based authentication scheme is a most powerful alternative tools to traditional authentication schemes.

A number of non contact biometric characteristics have been in use for different applications [1, 2].

Figure: 1.2 flattening the curve protective measurement

2. Biometric System

By modifying our hardware, we have developed an emergency solution enabling to monitor skin temperature as shown in this figure 1.2.

**Figure 2.1 Biometric system**

Infrasensing Elevated Skin Temperature Kits Disclaimer

The biometric IR spot sensors are not medical-grade devices. Present paper sensors are not designed for the particular specific intention of human fever detection nor the diagnosis, mitigation or prevention of disease or health conditions. A person may be carrying or transmitting diseases without having an elevated skin temperature. Where the use of our products is permitted, they should always be complemented with medical grade devices for confirmation and additional screening. Operation of the sensors should always be supervised by a medical professional. The device should be operated indoors within a 20-25C (68-75F) temperature environment for its 0.5^oC (0.9F) accuracy. Different temperatures may affect the accuracy of the device. Allow 5 minutes for the device to warm up before performing any measurements. In the USA the use of our sensors should also follow the Enforcement Policy for Telethermographic Systems during the Coronavirus Disease 2019 (COVID-19) Public Health Emergency from the FDA].[3]

2.1 Best Practices

2.2. Elevated Skin Temperature Versus Body Core Temperature.

An infrared sensor does not monitor the core body temperature but the radiated temperature of the skin. It is important to understand that the skin temperature is not the same as the core body temperature. The known fever temperature of 37.5°C or 100.4°F is the core body temperature. Skin temperature is significantly lower. Studies following the SARS and N1H1 outbreaks were conducted in respect to IR temperature scanning of people to detect potential cases of fever. We recommend the user of the system to read the sources below. If the event of a potential elevated skin temperature being recorded, it is important that this should always be confirmed using a secondary screening with a medical grade device [3,4].

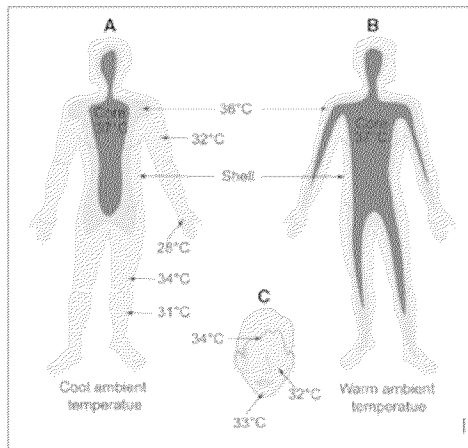


Figure 2.2: Elevated Skin Temperature Versus Body Core Temperature.

1.3. Temperature Accuracy, Operation and Maintenance

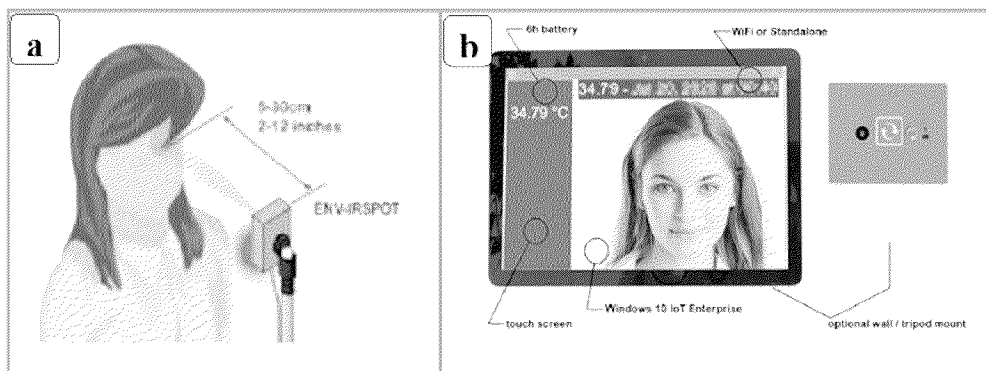


Figure:2.3 a) Persons standing the in front sensor, b) camera module take snapshot of screened



person with their temperature and time stamp, c) EST camera kit with IR spot 2MP camera and WIN10 IOT tablet. This kit has the same capabilities as the EST-IRSPOT with the addition of a camera module to take snapshot of screened person with their temperature and time stamp. Also included is a USB-C to USB-A cable for the sensor, a 2m USB-A extension cable a power adapter for the appliance. And a USB adapter to connect the sensor going to the Surface[3,6].

2.4 Est-Irspot-Thermal - With the optional thermal camera, the entire face will be scanned in 4800 points instead of just one measurement with the IR spot sensor. The hottest detected temperature will be retained. This ensures that the entire face is screened.

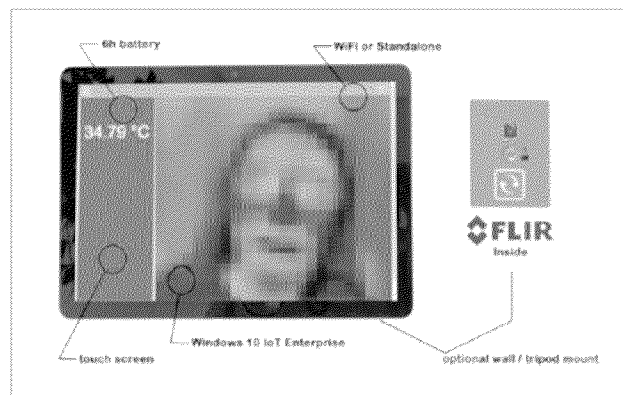


Figure: 2.4 EST Thermal spot camera screen image at high temperature.

Each sensor has been calibrated against NIST standards using double validation. The calibration has been done at a distance of 5cm and 20cm. The calibration has been done in an environment with an ambient temperature of 20-25C (68-77 F). Annual calibration should be performed by the due date as marked on the sensor. The IR spot sensors work by capturing the

emitted infrared radiation within their field of view. Units are calibrated at a distance of 5cm / 2 inches, at that distance they return the average temperature within a circle of 1.05 cm / 0.41 inch in diameter. The same is repeated at 20 cm. The sensor detects if a person is within the required 5-30cm (2-12 in) range and only then does it take the measurement. The sensor should be operated in an indoor environment with a temperature of 20-25C (68-75F). Outside of those ranges the results may be affected and the sensor may lose its 0.5C (0.9F) accuracy. Allow 5 minutes for the device to warm up before doing any measurements. Your sensor lens should be kept clean at all times. Temperature accuracy can be affected by the sensor lens. A dirty lens will result in incorrect temperature readings. When dirty (fingerprints, touch, dust), then the lens should be cleaned. To clean it, only use an alcohol-based solution with a non-linen cloth. For example: paper based Isopropyl Alcohol wipes[3,7].

2.5. Sensor Leads

The colors of the led on the sensor are pre-configured to operate as follows: - White: nothing detected within a 5-25cm range - Blue: temperature is too cold; a temperature of less than 32.5C or 90F. This often means that the person is not looking straight at the sensor, is wearing glasses or is wearing a face mask - Green: the temperature recorded is within the 32.5-36.5C (90-97.7F) range - Red: the recorded temperature is above 36.5C / 97.7F Additional screening should be performed to validate recording An elevated skin temperature does NOT always mean that a person has a fever. Anxiety, exercising and other factors may lead to elevated skin temperatures. This is why additional screening should always be performed to validate the recording[3,8].

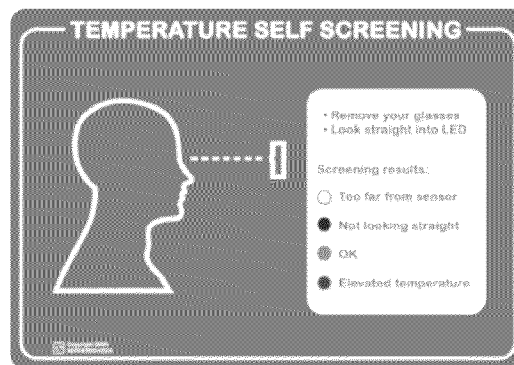


Figure 2.5 sensor Temperature selfscreening

An elevated skin temperature does NOT always mean that a person has a fever. Anxiety, exercising and other factors may lead to elevated skin temperatures. This is why additional screening should always be performed to validate the recording[3,9].

3. EST Kit - Temperature IR Spot Sensor

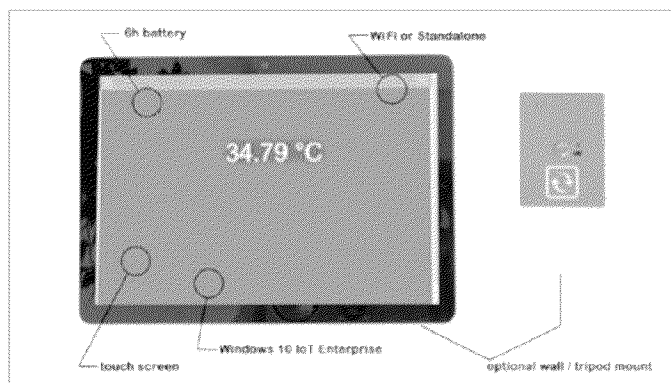


Figure:3.1 Temperature IR spot sensors

We offer 3 different EST kits from the cheapest, our IR Spot only kit to the kit expanded with a low res thermal camera sensor. All the kits require the person to stop in front of the kit to get screened. The IR spot sensors operate on a one-to-one. Rather than looking at a crowd of people, this setup scans one person at a time. It would point at the forehead of a person to be screened. It performs the skin temperature scanning with an accuracy of $\pm 0.5^{\circ}\text{C}/\pm 0.9^{\circ}\text{F}$ with compensation based on ambient temperature to improve the sensor's accuracy and reduce drifting. The software on the appliance picks up the sensor reading and shows it as a green or red value. Simultaneously, the data is saved onto the appliance where it can be used for adhoc analysis using trend analysis[3,10].

4. How it works

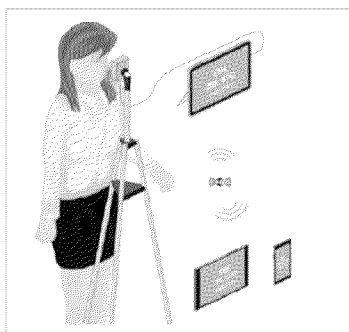


Figure: 4.1 software scans with the IR spot or thermal camera for a human skin temperature range

The software scans with the IR spot or thermal camera for a human skin temperature range; which is typically between 33.6°C and 36.9°C. When a temperature is found that is above the user defined threshold, then an alarm is raised: visual (red) and audible (sound). It supports wifi at 2.4 GHz and 5GHz. With Windows on board this means that you can either connect the tablet PC to your own access points. However you can also configure the tablet PC to become a hotspot on its own enabling you to access wirelessly the software running on the tablet. If you don't want to connect it to any network, then it can still operate in a standalone mode. Using the Surface's built-in battery, the kit can operate on a single battery charge for up to 6 hours[2,15].

Conclusions

We have successfully worked out non-contact temperature infrasensing assessment device in COVID-19 Pandemic. Detection of body temperature has been done in infrared thermography and accuracy is observed in detection of fever. We have successfully provided optional thermal camera; the entire face will be scanned in 4800 points instead of just one measurement with the IR spot sensor. Sensor leads to have self ability temperature screening. Thermal IR Spot sensor giving excellent accuracy.

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16. A Study of Covid-19-Reality and Facts in Education

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Introduction

The Covid -19 pandemics and the social distancing that followed have affected all walks of life, including education. Nowadays educational institutions have had to quickly adapt to the situation. Now education fixed with technology. The Covid -19 pandemic raging around the global has caused large scale intuitional and behavioural shock effects in various areas of human activity including education.

The pandemic is clearly a sign of changing times and human behaviour. The impact on learners is unprecedented on April 2020, there are over 1, 500, 000, 000 students worldwide from primary level who cannot attend school (UNESCO 2020). Due to massive and unaccepted closures, affected countries and communities have been forced to seek quick fixes in different digital learning platforms (Jandric 2020).

Such type of rapid transformation from classroom to remote teaching have setaside the more crucial questions related to National educational policies.

Lockdown affect students in multiple ways, reinforcing inequalities and putting them under social and psychological stress.

Review of literature

some forms of emergency remote learning are being criticized for failing to adhere sound pedagogical principles, best practices and earlier research (Hodges 2020) on social media, prominent experts have question reasons driving some individuals, organisations and companies so eagerly towards providing guidance, pondering whether their motivations has been driven by market reasons (Siemens 2020) others have noted the potential negative outcomes if educational technology quick fixes are implemented without balancing there consequences (Selwyn 2020St Amour 2020)Quickly jumping on board with learning platforms and remote learning has also raise concerns about privacy and surveillance and the impact on students lives any human dignity

(Harwell 2020). In such situation of pandemic educational organisations should think very careful manner regarding remote teaching and learning. This choice can potentially echo in the future as new relations of power and control, new forms of student equality and inequality and other unpredictable effects (Selwyn 2020).

Objectives of the Paper

1. To understand the post covid situation in education.
2. To find out various changes in education due to covid-19.
3. To find out the post covid changes in education.

Methodology of the Study

This study is descriptive nature and it has done with the help of observation, actual situation and library resources.

Limitations

This small explanatory descriptive study is limited for only sphere of education in post covid situation.

Changes in Education Post Covid-19

There are a lot of changes accrued in education due to covid-19. Below are some important ways in which education will change in the post covid-19 time.

Blended learning is habitual

The classroom of school and colleges will be supplemented by online course work. In this way, students may be required physically attend classes on few days and will be free to study at their own place.

The Role of Teacher will be E Redefine

Now in post covid-19 the role of teacher is changed. Teacher is a mediator and facilitator in the development of learners and helping them to become lifelong learners.

Training of Teachers will be Different

All the teachers will have to be trained for online teaching as well and will be able to seamlessly switch between online and offline modes of teaching the curriculum.

Evaluation of Students will be Shifted on Remote Mode

Technology is the very effective techniques which can helpful to spend very less time of users i.e. teach educators mean, exam related task.

Norms of Social Distance

In post covid-19 there will be new social distance field rules will be followed by the students and teachers. Schools might consider working in shifts, classrooms will follow strict sanitization process and social distancing will become a norm for all activities.

Various Skill Development Courses

Introduced in post covid situation in education May teachers are ready to do such type of virtual skill development courses which will help to enhance the quality of teaching. Teachers need to adapt at conducting activities projects and assignments study materials which are student's centric so, we can say that the pandemic has indeed caused us to look at education in a different way.

The Adverse Effect on Education of Post Covid the Student's Dropout Rate

Dropout rate are still very high in many countries and a long period of this engagement can result in a further increase. Going to school is not only about learning of syllabus but also about social relationships and peer to peer interactions.

The Role of Parents and Family is Changed

Due to covid the role of parents and family which have been drastically changed. They want to pay attention on their kids. A lot of the help that ministers of education provide, working through mass media, should also go to parents. Radio, TV, SMS messages can also be used to provide tips and advice to them on how to better support their children.

Parents involvement in such situation is also very crucial

Drastic Transformations in Education

Post covid-19 is an opportunity to transfer the higher education system. Institutions should utilise opportunity to transfer itself. Curriculum design, collaborations, skill development and faculty involvement all should focus on international IC higher education. Today it is covid-19 we don't know what lies ahead in future for the million youngsters.

Conclusion

The pandemic has force universities to bring their courses online. This is just one step along the road to a new educational paradigm, however.

And also this pandemic has shuttered economics around the world has also battered education system in developing and developed countries. We can and we must reform our

education systems and reimagine learning to equip all learners with the skills they need for the future.

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17. Understanding the Impact of Covid-19 and Opportunity to Reimagine Education

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Introduction

The COVID-19 pandemic has badly disturbed the complete education system of the world. This pandemic affected nearly 1.6 billion learners which is about 94 percent of the world's student population.[1] This may affect the learning ability of students. Due to the economic impact of pandemic's many students may drop out from school or they may not continue their education.

While so many efforts have been taken to continue education during the pandemic by using the internet, mobile, television or radio. Teachers also immediately make adjustments to adapt to new ways of teaching without any expert's support. Many teachers also started their youtube channel to support learning of students at any time. But students with lack of resources like mobile, the internet and network facility are falling behind in this digital education.[2]

In this chapter i will highlight different aspects of education, like loss of education, teaching during COVID-19, reopening of educational institutes, reimagine education and problems of the teacher.

Loss of Education during COVID-19

Education is the fundamental right that gives us realization of all human right. Education helps us to become better citizen; it shows the difference between good and bad also it helps us for the development. COVID-19 Pandemic cause worldwide closures of schools, colleges and university [3]. If the education systems collapse then it will badly affect on growth and development of societies.

According to UNICEF due to COVID-19 pandemic approximately 1.6 billion children and youngsters were unable to continue their offline education in schools, colleges and university.

Due to closure of schools and colleges UNISCO recommended to continue education by using the different online platform like educational website, educational applications, You-Tube, zoom, etc. which can be easily available to both teachers and students.[4]

In India recent New National Education Policy-2020 strongly recommended that Basic literacy and numeracy skills are essential for further learning but one study conducted in five states of India by Azim Premji foundation found that about 92% of children had lost one specific language skill learned last year and about 82 % of children had lost numeracy skills. These numbers suggest a wide-ranging loss of learning in children across the country due to COVID-19. If children go back to school after the pandemic, many of them will not be able to make up this loss and may cause children to drop out.[5]

Teaching during COVID-19

This time of difficulty has shown us the creativity within the educational field. We have witnessed modern and off-center proposals in support to education continuation; like use of smartphones, laptops, T.V., etc. for distance and safe learning.[1] While in higher educational sector online learning has been conducted through pre-recorded lectures and various online ways like video conferencing application. But some universities have further delayed learning and teaching until another notice, due to absence of information technology (IT), facilities for both students and teachers.

The COVID-19 severe danger got us an intense perception of the digital partition, which needs attentiveness. There are so many children's and youth who don't have resources and proper environment to continue their education from home. Government needs to work on this digital divide by taking a look in digital facilities and also by taking down the connectivity prices. Government should try to ensure that whether students have a good availability to internet, parental support and plenty of availability of learning resources so that they can continue their learning peacefully and effectively. Also, by designing the self-learning books we can keep education on track for those students who have stopped going to schools or who are likely to do so and for distance learning of students who don't have access of the mobile, the internet or other resources. [6]

Educational institutes should communicate with students and their parents to provide guidance about safe use of the mobile, the internet and other online tools so that they can protect

themselves from online threats. Also, an educational institute must communicate with other school networks or systems to improvement in delivering education. [7]

Innovative efforts must be taken to promote inclusive learning, like by using the transparent mask we can easily communicate with deaf children and also follow the protocol of the pandemic. [8]

About Reopening

The most important step for the reopening of schools and colleges is to suppress transmission of the corona virus. If we will be unable to completely suppress the transmission of the virus in the upcoming year then we have to open schools and colleges by controlling the crowd. By changing the time and number of students, we can easily control the crowd.

Due to continuous decrease in Covid-19 cases from last few months, State-wide elections, festivals, cricket matches, public transportation, theatres, malls, shops and factories opened without applying any restrictions only School and Colleges kept closed. It seems that government is giving less importance to educational loss as compared to the economic loss. As the crowd at educational institutes can be controlled, government must give permission for reopening the school and colleges to cover educational loss due to the pandemic. [5]

Medical research also indicates youngsters are less affected by Covid-19. According to the report of WHO youngsters are at lower risk of developing serious illness due to corona infection. All teaching and non-teaching staff must be vaccinated so that they can safely go back to schools and colleges. Also, by taking other safety precautions like wearing masks, washing hand, maintaining physical distancing, usage of thermal sensors, etc. will ensure safety in schools and colleges.

Reimagine Education

Decisions made today will have long-term effect in the future of education. Many efforts have been taken for the learning continuity during this difficult period shows us that change in education system is possible. We should now try to find new methods of learning and teaching by considering the future of education. It is time to reimagine the education.

The pandemic forced millions of adults to work from home. Many people realised that an office is not needed to do productive work. Similarly, large housing societies already have community halls, where adults can share their skills and experiences with young ones. Every housing society should have an “activities centre”, where children can make and do things. [9]

This pandemic time shows us that teachers need better training in teaching skills by using ICT. Also, free and open-source ICT technologies should be available to teachers and students. This is right time for designing the new curriculum by communicating with teachers, students, parents and educationalist which offer skills and knowledge for employability of students.[7]

Teachers and Their Problems

During these pandemic time teachers immediately taken responsibility of education of students and started alternative ways of teaching without proper guidance, training and technological support. But to teach students more effectively teachers need some technical guidance, training and resources so that they can do their duties in better ways.

During these pandemic time teachers immediately taken responsibility of education of students and started alternative ways of teaching without proper guidance, training and technological support. But to teach students more effectively teachers need some technical guidance, training and resources so that they can do their duties in better ways.

These economic problems faced by teachers will affect their family also and may lead to affect the quality of education. Also, a teacher may turn to the alternative source of income which may lead to affect the ongoing education.[1] Therefore, Government and educational institutes must take care of teachers' rights and status by ensuring that salaries and benefits including sick leave and medical benefits are provided according to standards set out in civil service regulations or contractual obligations, including during periods of school closure or individual isolation due to the pandemic.[10]

Conclusion

I hope that the information given in this chapter will help educationalist and government to work for the improvement of ongoing education in this difficult time of COVID-19 Pandemic. The educational organisations and government should take proper decision by considering the problems of students and teachers. Government and educational institute should work hard to compensate the loss of education during COVID-19 Pandemic. We should ensure that no one is left behind due to lack of resources and guidance in education as everyone has right to education.[11] This difficult time also opens the door of the new and innovative mode of education which will definitely uplift education to next level. This is the time for us to reimagine the education, so that we can design new curriculum which offer skills and knowledge for employability of students. Also, we should not forget the efforts taken by teachers for the

continuity of education and we should take care their problems from technical to financial because they are nation builders.

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18. Challenges of Post Covid in ERA of Education

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Introduction

Education post covid-19 will very completely change and difficulties will encounter many countries after covid-19. The impact of coronavirus is throughout the world. Education sector too has been badly affected. To look at the current scenario, face to face classes are not possible in the near future. However, taking this 'hard time' as an opportunity to reshape the modality of education. Covid-19 will affect a lot on post covid-19 education.

Review of Literature

The pandemic and the lockdown to contain it have affected the mental health of people around the world. Many students are suffering from stress and anxiety (cao et al, 2020), (Islaw, Barma, Raihan, Khan and Hossain 2020) such psychological issues often hinder students from adapting to online education. Although this inequality existed earlier, the covid-19 pandemic has expose this digital divide (Larger and Blaabeek 2020)

Broadly identified challenges with e learning are accessibility, offered abilities, flexibilities learning pedagogy, lifelong learning and Educational policy (Murgatrotd 2020)

The level of academic performance of the students is likely to drop for the classes held for both near in examination and in terminal examination to reduce contact our for learners and lack of consultations with teachers when facing difficulties in learning (Sintema 2020)

Objectives of the Study

1. To find out post covid situation in the world
2. To find out various problems and challenges of post covid in education

Methodology of the Study

This study is based on descriptive nature. The data collected from library resources and discussion with students, teachers.

Limitations of the Study

This study is limited only about post covid circumstances which are regarding problems and challenges in education. We know we are facing lot of problems in post covid situation in every sphere of life.

Challenges in front of Education - after Covid

1. Taking into account technologically means to ensure teaching in virtual class and due to this same new health problem created

Teaching wasn't just about the chalk, black board and a room with one teacher and several students, but rather an atmosphere that led to building bonds and mutual understanding between teachers and students. The classroom culture not only helps in developing one's personality, but it also enables as provide lessons on teamwork through group activity. But in post covid-19 world, teaching has undergone a rapid transformation. Institutes and teachers are following different online methods to connect with student. The entire world has strongly forced to utilize virtual techniques in teaching & learning during covid and also post covid. One of the most crucial problems arising out of this setup is the continuous use of mobile phones and computers by our students. This is affecting their eyesight and bodies and mind. Students are complaining about headache, back pain and stiffness in their legs. Apart from physical health, students have also been sharing how their mental health is getting impacted. Many are going through the phase of depression and anxiety as well.

2. Lack of proper devices of teaching and learning

In the developed countries online education may be a weapon to overcome the current problem. But in developing and underdeveloped countries, it is not at all possible to disseminate the online education to teach and every hook and corner of the country due to not availability of smart gadgets.

Africa and other countries is whether this is a reality especially for learners from low-resource homes families who cannot afford the online kids. The parents have hesitation that children are frequently using the smart techniques for remote learning i. e. smart phone and various social media platforms.

3. The inability to afford, for the internet is not free after all, are depriving several students from receiving information. So such issues of access and affordability may enhance the

gap between the 'haves' and 'have not's' even though education is supposed to be a universal right.

4. Teacher student relation in pandemic and post pandemic

Teacher student relationship is permanent where in teachers are not just knowledge provides but also mentors and Guides, their students in every aspect of their life but it all things are not easily possible in virtual platform of teaching in this situation. So, in brief, disappearing classrooms will lend as to disappearing dialogues.

5. More students are in home in India

Laks of Indian students have increasingly chosen to pursue higher education abroad. As per the reports, India is the second largest source of international students in the world. But now travel restrictions and health risk students are in home. This is also the big problem in education which is face by the students of India.

6. The effects of economic crisis on education

The economy has undergone lots of problems. Theeconomy has taken a severe hit and its ripples can be felt in the education sector as well. While many students will chat alternative paths, the pandemic is also living others in in limbo. Due to unemployment India homes under stress and anxiety. So our country can expect a drop in enrollments and challenges with tuition fees and public iterations alsomay under threat of reduced funding.

7. The biggest challenge is that the government and individuals are not prepared for the aftermath of the covid-19 on educational provision that can be a disaster on the national transformation and socio-economic development. The Government of the developing countries is just looking for containing palliative method not paying attention to the educational provisions. The nation is not ripe for the online education because the pandemic started suddenly. Let the governmentand well-meaningorganization that has goodwill in developing education to intervene.

8. Online learning during covid-19 has given opportunity to utilize new teaching and learning strategies. At the same time their diversity in student's situations as challenge.

For next academic year, more likely there will be a mix of online only and hybrid teaching methods. The hybrid approach includes both online and face to face two different rations for the delivery of contents. In brief we can say that, a diversity of contemporary teachers has been a pressing challenge already, and it is growing more serious. Faculties are being called

upon restructure the course content in view point of future needs. It's a great challenge of change in education system. Moving away from the pedagogies in most average institutions, the demand for quality education will shape the way higher education moves forward from this crisis.

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19. Post Covid-19 Situation in Economics in India

Sohail Bagwan
Vasim Lala Shaikh

Present

Covid-19 the centuries' worst calamity has affected every sphere of human life. It has brought to the fore several voids in the unequal social development of humans. It has ruptured the thin shell of social security. Its impact on the mindset of millions of people is unprecedented. Several theories about its manmade source has made life miserable for the poor and the needy. Restrictions enforced on people has jeopardised the political and administrative set up of several democratic countries. The budget of many developing countries has been adversely affected and are in need of vigorous financial assistance. The uncertainty about the depth and duration of the pandemic has put the nations in financial crisis. The economic recovery from the banks has rewritten the rules and regulations of banking. The policy makers are in a dilemma of the price they will pay for the monetary measures to recuperate from the economic mesh. The percolation of the financial needs to the most wanted was hindered by the greed and stocking mindset embedded in our society. The lingering unemployment will add to the woes of fiscal legislations. Necessity brought in creativity but not enough to restore normalcy. The disparity between the rich and poor was amplified by the record number of growth of billionaires in the country. The corona virus thus can be crowned as "**Inequality virus**". The difference in the wealth of the poorest and the rich widened beyond limits of reconciliation. This has raised questions about generosity and kindness that pervaded the society for years. The sponge effect of the pandemic increased the chasm between earners and gainers. This division is worse than all forms of human segregation and discrimination such as apartheid, racism, colonialism, regionalism and so on. It is therefore necessary to see the above perspective in light of human degradation and to study the implications of the above which can be categorised for the purpose of analysis and the results utilized for providing a buffer against pandemics.

Implications on Labour

The unorganised sector in India constitute a large migrant population and sudden loss of work due to lockdown spells doom for such people. They are unable to meet their daily food

requirement and the possibility of them plunging in deep poverty is obvious. Unequal development in India has led to labourers migrating in large numbers generally from the states of UP and Bihar to western parts of the country. They are engaged in construction, agriculture, domestic and other daily earning jobs. According to the survey conducted by Jan Sahas 2020, 90% of the migrant lost their jobs within the first three weeks of the lockdown. More than 80% of this floating population did not have enough ration and feared running out of food. Again more than 80% were not sure of getting a job. A large portion of this population was vulnerable to illness, diseases and other health issues. Lack of transport to their native villages made their lives miserable. They were subjected to police lathi charge. Many of them sprinkled with sanitizers. With no substantial support from authorities, they were subjected to the most inhuman treatment putting to shame the cultural and ideological values of the society. According to the survey less than 5% were paid wages close to minimum wages. The government announced a relief package of more than Rs. 1500 billion, but this did not percolate to the required sections of the deprived. The distribution of the relief was as wayward as the behaviour of certain sections of the society. The social exclusion of these people made the task of upliftment beyond contemplation. The saga of mental harassment continued with the dealing of people having died because of covid-19. The court had to intervene this human rights abuse situation questioning the government about its policy. This put tremendous pressure on the various sectors affecting their financial health.

Implications on Stock Markets and Tourism Industry

Foreign investors withdrew large amount of sums from the equity as well as the debt markets during the month of March 2020. This resulted in more volatility and investor sentiments were badly hurt. The fall in the stock prices wiped out thousands of crores of investors money. Though India was a preferred destination as compared to China capital outflow from India depreciated the rupee further. The markets in India were reeling under the effects of demonetisation and this acted like nail in the coffin for many businessmen. Many start-ups were confused about the market situation and hence could not stabilise. The only segment that saw an upswing was online business. Though they faced some difficulty in delivery of goods, business was in the upward mode.

Tourism industry was among the worst hit sector. It accounts for than 9% of the GDP. Mobility was restricted because of lockdown and both domestic and foreign tourism grinded to a halt. The revenues nosedived and in the month of March/April, 2020 and pulled the GDP by approximately 0.5% downwards. Aviation sector being the major part of tourism contributes most to the GDP. A dip in this revenue compounded by a dip in the railways contribution, necessiated the fall in GDP. Foreign tourist arrivals saw a major decrease and hence the revenues took a beating. The initiatives taken such as the “The Incredible India” by the government clubbed with e-visa options did not help much as there were travelling restrictions by most countries. Domestic tourism was encouraged even during the pandemic with government schemes such as “Dekho Apna Desh”. This may bring on track the travel and tourism industry with ease of restrictions and more mobility.

Implications on Policy

Since the lockdown had direct effect on the livelihood of people, healthcare and food security, the priority of the government was to save the lives of people. Prioritising between life and livelihood was the goal of policy makers. The Prime Minister announced an economic stimulus package for several fronts including free food package for the poor and needy. The last date for filing GST and income tax were extended and the Reserve Bank of India withheld the repo rates for three months and infusing liquidity in the markets. The government extended date for the laws associated with customs clearance. The threshold was increased ten times for proceedings under Insolvency and Bankruptcy Code to help Micro, Small and Medium Enterprises (MSME). The loan obligations for MSME were given a moratorium. Sustained movement of perishable and agricultural goods was needed to overcome losses due to unavoidable storage. Some of the edible items were deregulated and amendments were made in the Essential Commodities Act to suit the ground realities. The World bank also made available emergency funds under the project “India COVID-19 Emergency Response and Health Systems Preparedness Project.” India participated in the “Extraordinary G20 Leaders’ Summit” to work in collaboration with other countries for the speedy manufacturing of critical equipment and development of vaccine. The Asian Development Bank also assured India financial borrowings to help tide the pandemic crisis. The government had to take decisions which otherwise would not have been plausible.

Future Bufferring

The lessons learnt from the pandemic has taught governments and policy makers to be prepared for such eventualities and to rethink on the policies of disaster management. There were views that the pre lockdown economic slowdown and growing inflation badly needed a correction, but such massive overhaul of the socio-economic scenario was beyond contemplation and control. Except defence, almost all the departments of government machinery were subjected to massive operational task. The government must think on decentralising essential requirements such as in health, agriculture, transportation and so on. The socio-economic hara-kiri will definitely teach government agencies to buffer its people in terms of time and essential requirements to overcome such situations with minimal loss.